

**Project Report on
License Portal Management For
PTC Software India**



For



**MES's Institute of Management & Career Courses
(IMCC), Pune**

Submitted to:

Swapnaja Patwardhan

Submitted by:

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**MES's Institute of Management & Career Courses
(IMCC), Pune**

131, Mayur Colony, Kothrud Pune, Maharashtra



April 6, 2020

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Akshata Gawari** final year MCA student of **MES's Institute of Management & Career Courses [IMCC], Pune** has been associated with us as "**Project Intern**" from July 2019 till date.

As per Company policy we cannot provide any kind of source code or executable to the Trainee. During project the candidate has worked with utmost dedication & sincerity. The candidate has worked on:

“License Management Portal”

The project was carried out in partial fulfillment of requirement for the award of degree of **Master Of Computer Applications** from **Savitribai Phule Pune University** for the academic year 2019-2020.

Your Sincerely,

for PTC Software (India) Pvt. Ltd.

A handwritten signature in blue ink, appearing to read 'Rucha Mantri', with a large loop at the beginning and a horizontal line at the end.

Rucha Mantri

HR Section Manager

Maharashtra Education Society's



INSTITUTE OF MANAGEMENT AND CAREER COURSES (IMCC)

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Director

Web Site: <https://imcc.mespune.in>

Ref. No : MCA/Project/023/2020-21

Date : 14/09/2020

CERTIFICATE

This is to certify that the Project Report entitled “*License Management Portal*” is prepared by *Akshata Rohidas Gawari*, a student of *M.C.A.* Course for the Academic Year 2019-20 at M.E.Society's Institute of Management & Career Courses (IMCC), Pune - 411 038. M.C.A Course is affiliated to Savitribai Phule Pune University.

To the best of our knowledge, this is original study done by the said student and important sources used by him have been duly acknowledged in this report.

The report is submitted in partial fulfillment of M.C.A. Course for the Academic Year 2019-20 as per the rules & prescribed guidelines of Savitribai Phule Pune University.

Dr. Ravindra Vaidya

HOD, Department of MCA, IMCC

Dr. Santosh Deshpande

Director, IMCC

ACKNOWLEDGEMENT

It is my proud privilege to express gratitude to the entire management and teachers of the institute for providing me with the opportunity to avail the excellent facilities and infrastructure of the institute. The knowledge and values inculcated have proved to be of immense help at the very start of my career.

I am grateful to Dr Santosh Deshpande (Director, MES's IMCC), Mr. Paritosh Nagda (**Technical Lead**), and Swapnaja Patwardhan (Internal Guide) for their astute guidance, constant encouragement and sincere support for this project work.

I also thank my project mentors who showed their concerns for my work, encouraged me to keep my best foot forward and gave

valuable suggestions which not only helped me in my project work but will be useful in future too.

I would like to thank PTC (Parametric Technology Corporation) for providing me with an opportunity to pursue my industrial training, as it is an important part of the MCA course and it is the one that exposes you to the industry standards and makes you adapt yourself to the latest trends and technologies. At the same time, it gives an experience of working on a live project. I feel proud and privileged in expressing my deep sense of gratitude to all those who have helped me in presenting this assignment.

Sincere thanks to all my seniors and colleagues at company for their support and assistance throughout the project.

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CHAPTER 1:

INTRODUCTION

1.1 Company Profile:

PTC (formerly Parametric Technology Corporation) is a computer software and services company founded in the 1985 and headquartered outside of Boston, Massachusetts. The company was a pioneer in parametric, associative feature-based, solid computer-aided design (CAD) modelling software in 1988, including an Internet-based product for Product Lifecycle Management (PLM) in 1998. PTC markets products and services and an Internet of things (IoT) and augmented reality (AR) platform for partners and developers.

PTC has six core product families:

1. Creo- It includes product design and engineering software solutions.
2. Windchill- Windchill PLM includes a portfolio of different PLM capabilities such as CAD models, documents, technical illustrations, embedded software and calculation.

3. Mathcad- Engineering calculation software that is used by engineers to solve, document and share the calculations used for product design.
4. Integrity- The PTC Integrity product provides a set of Application Lifecycle Management (ALM) and Systems Engineering capabilities.
5. Servigistics- Service lifecycle management SLM software that is used by manufacturers to understand how service planning, customer service, and analysis of returned product data can improve service value over a product's life,
6. ThingWorx-- ThingWorx is based on ThingWorx Foundation, an application enablement platform used as a design and runtime engine for IoT applications. It also includes ThingWorx Analytics, Thingworx Industrial Connectivity, and Vuforia studio.

The Company's technology is primarily used by discrete manufacturers to design, operate and maintain complex

products. PTC's technology is also used to connect products to the Internet for purposes of capturing and analyzing information from them.

Vision:

PTC has the most robust Internet of Things technology in the world. In 1986 we revolutionized digital 3D design, and in 1998 we were first to market with Internet-based PLM. Now our leading IoT and AR platform and field-proven solutions bring together the physical and digital world to reinvent the way you create, manufacture, operate, and service products. With PTC, global manufacturers and an ecosystem of partners and developers can capitalize on the promise of the IoT today and drive the future of innovation.

Introduction:

License Portal is a web-based application in which user can install, deinstall and move licenses for various products. It also provides address, contact and hardware management.

License management report can also be generated which contains detail information of the licenses. License portal is available in various languages, so user can change it as per the preference

1.2 Existing System & Need for system:

Existing System:

An existing project management system was a desktop application on Oracle. The organizations who are using or purchased PTC product are end users of license management.

Need for System:

- In the existing system, the user/organization was required to send a request to the PTC Service desk.
- And as per the request from user/organization the Service desk staff used to install, uninstall, move licenses, etc.
- As the amount of product users increased exponentially with time, it was a tedious job to maintain thousands of records with only a smaller number of staffs.
- Also, there was a possibility of human errors in such tedious work.

- Therefore, to solve this problem, there was a need of Software that will do this processing task automatically just on simple user interaction.

1.3 Scope of the system:

- The License portal will allow the user to login as a customer and review his organization's licenses and perform action on it.
- This system will provide repository to download licenses of some specific products retrieved by the customer in last 7 days.
- The system will be able to generate a detailed spreadsheet of License report of the products.
- This system will help to change hardware information (HostID's) and also enable user to create, edit or deactivate contact and address information.
- It will allow user to search PTC Sales Representatives or resellers in their area.
- Users can also log a case if they are facing any issue regarding licensing.

- FAQs, tutorials, documentation, downloads and other related tools will also be provided for supporting the users.

1.4 Operating Environment

Client side:

- Processor: 1 gigahertz (GHz) or faster
- RAM: 1 GB or higher
- Hard disk: 10 GB or higher
- Internet: Speed of 500 Kbps per second or higher.
- Web browser such as Internet Explorer, Chrome or Firefox.

Server side:

- Operating System: Red Hat Enterprise Linux 6
- Processor: AMD Opteron 6378 2.4 Hz 16 core
- RAM: 64 GB
- Hard disk: 5 TB
- Application Server: JBOSS Enterprise Application Platform (EAP) 6.4

1.5 Detailed Description of Technology Used:

- Web MVC Framework: Spring4
- Object Relational Mapping (ORM) Framework: JPA2
- Web Pages: JSP
- Programming Language: jdk1.8
- User Interface Framework: jQuery, Foundation
- User Interface Validation: JavaScript
- Application Server: JBOSS EAP7
- Database:Oracle

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CHAPTER 2:

Proposed System

2.1 Proposed System

Problem Statement

In the existing system, the user/organization was required to send a request to the PTC Service desk and as per the request from user/organization the Service desk staff used to install, desinstall, move licenses, etc. As the amount of product users increased exponentially with time, it was a tedious job to maintain thousands of records with only a smaller number of staff. Also, there was a possibility of human errors in such tedious work.

Product position statement

For customers, who want to install, deinstall or move licenses, is a Web based application that allows customers to install, deinstall or move licenses for the product he purchased unlike existing system, the customer was required to send a request

to the PTC Service desk our product allows customer to review his organization's licenses and perform action on it, generate spreadsheet of License report of the products.

Product Overview

The License portal allows the user to login as a customer and review his organization's licenses and perform action on it. The system can generate a detailed spreadsheet of License report of the products. System can also change hardware information (HostID's) and enables user to create, edit or deactivate contact information.

Allows user to search PTC Sales Representatives or resellers in his/her area. User can also log a case if he is facing any issue regarding licensing. FAQs, tutorials, documentation, downloads and other related tools will also be provided to support the user.

Summary of capabilities

- **Mission and Vision Statement**
 - To enable our customers to manage their product licenses and several Host IDs.
 - To create a simple and user friendly interface for managing licenses.

- **Key Products and Services**
 - License Portal can license almost all PTC products.
 - Also our Business team is working efficiently in tracking the logged cases by the customer.

Assumptions and dependencies

- We assume that customer has received a Software Order Confirmation Email which consist of Customer number, SON, SCN, Site Number and other details.

- For license file generation the application depends upon JMS (Java Message Service) which consist of

asynchronous calls so we cannot predict the time of retrieval of file.

- Also, it depends on license cutter execution which is nothing but a UNIX executable file that is responsible for its generation.

2.2 Feasibility Study

A Feasibility study is the study of positive possibilities of the project. The different types of feasibilities are as follows: -

Technical feasibility

Technically this project is very dedicated and has systematic execution. This website can run efficiently even on a very ordinary configuration machines. So developing License management is technically feasible.

Operational feasibility

License management is very easy to operate and has a user friendly designs so that the end user will be able to handle it casually. So License management is quite operationally feasible.

Economic feasibility

For any project to begin there is a fixed budget of organization allotted to it. To implement the entire licensing functionality on a web site is possible in the decided budget of organization.

2.3 Objectives of Proposed System

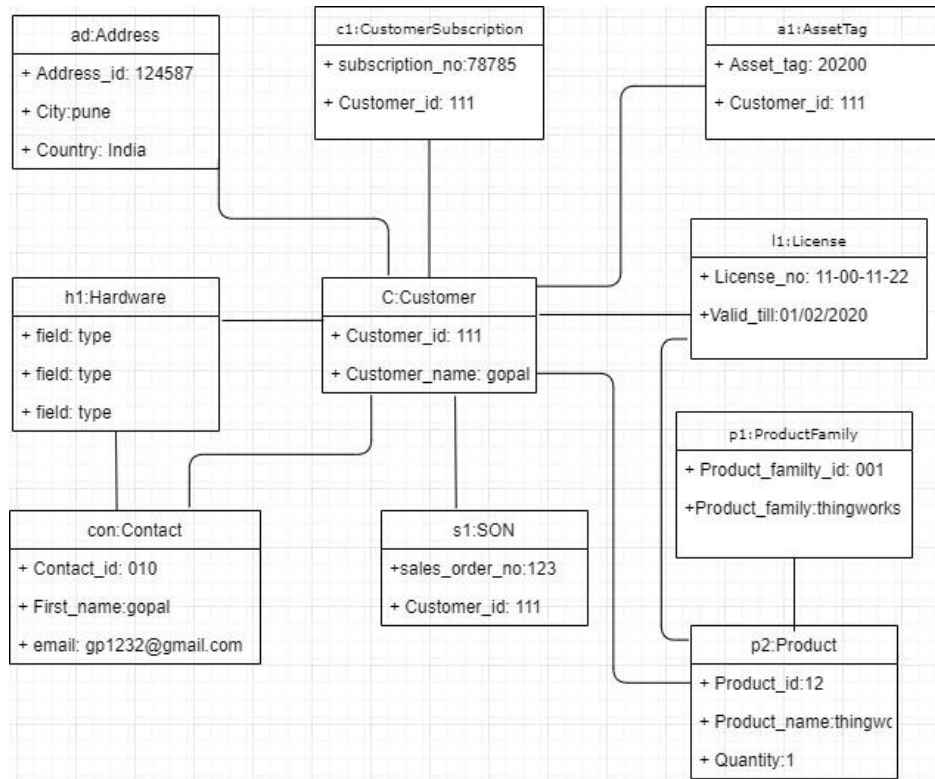
- To assist with License Management for client products.
- To improve efficiency of overall operations.
- To prevent lost revenue and slow licensing cycles.
- To integrate industry-appropriate metrics in order to better understand operations.
- To provide a consistent license management of a product throughout its lifecycle.
- To automate repetitive manual processes.
- To store license related data in a secure manner.
- To make data available and accessible from any location.

2.4 User Requirements

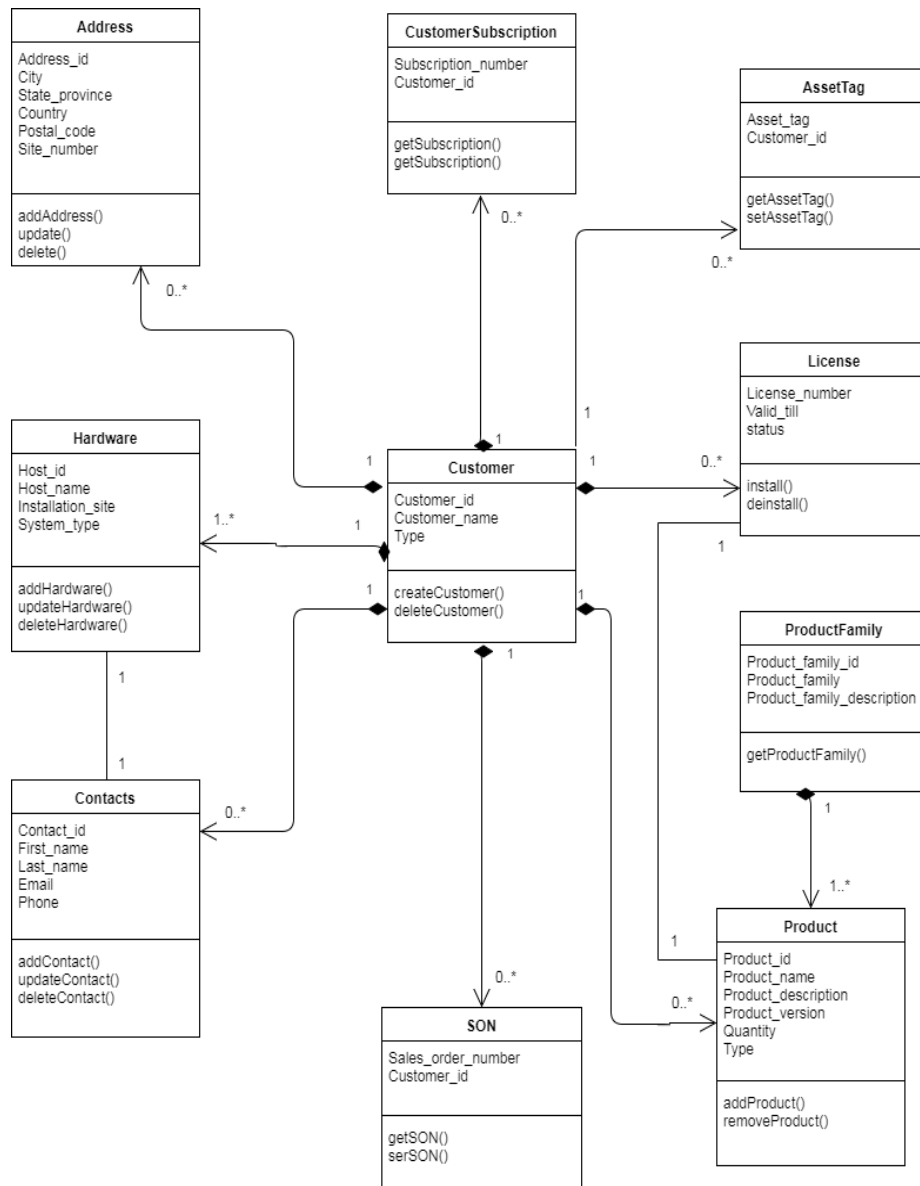
- Users must have a login ID and password to login to the website.
- User must know either one of these - Sales Order Number (SON), Service Contract Number (SCN), Site Number.
- User must be aware about general information about products he purchased.
- Users must be able to search for objects and fields throughout the system.
- Users must have a basic knowledge of operating website.

CHAPTER 3
Analysis and Designs

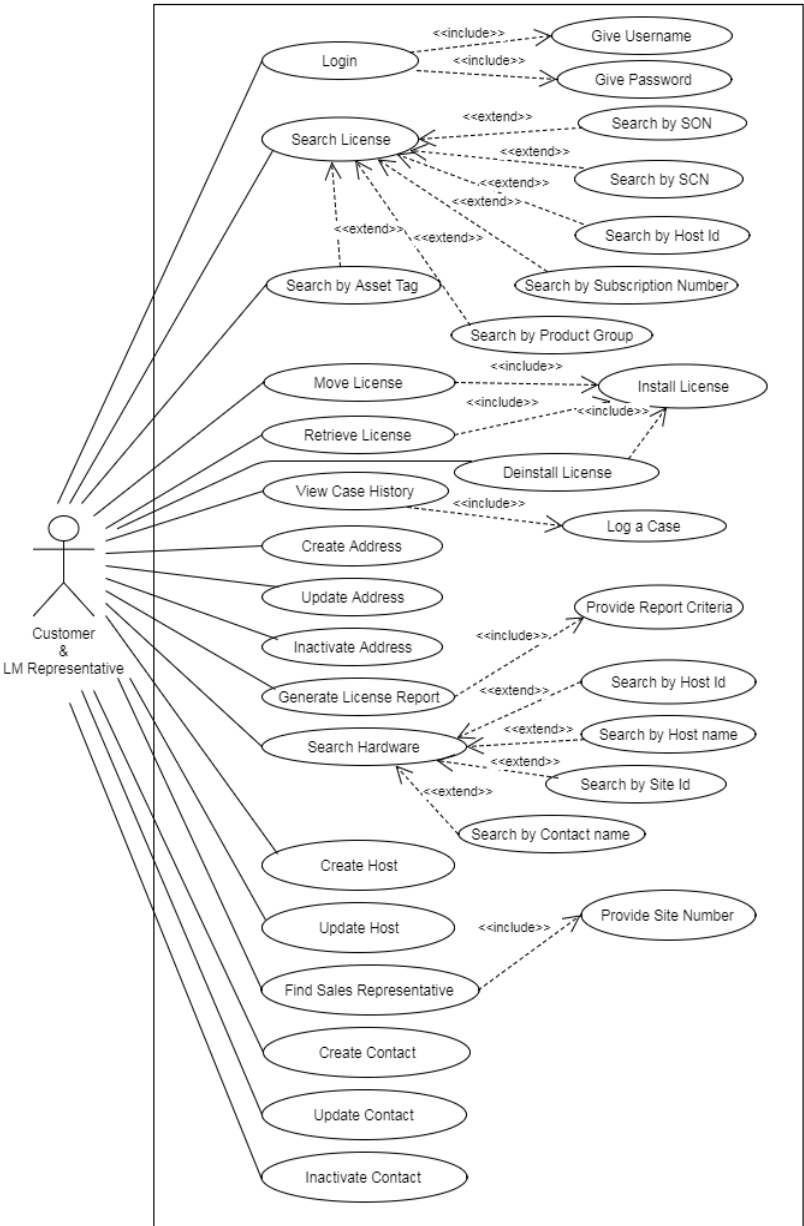
3.1 Object diagram



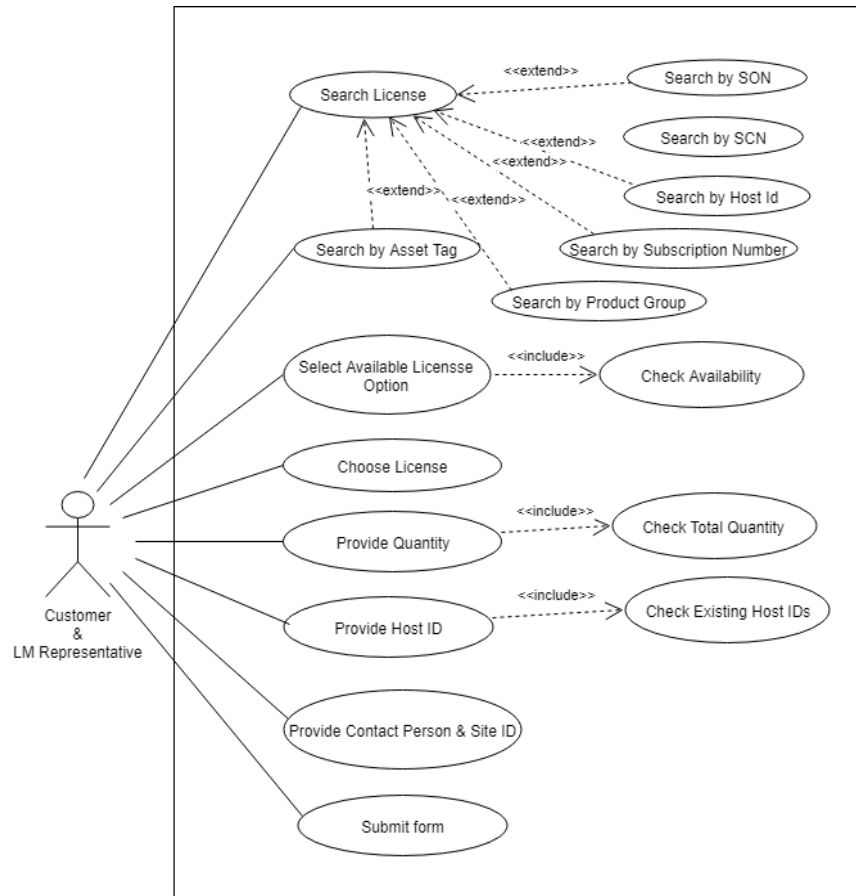
3.2 Class Diagram



3.3 Use Case Diagram



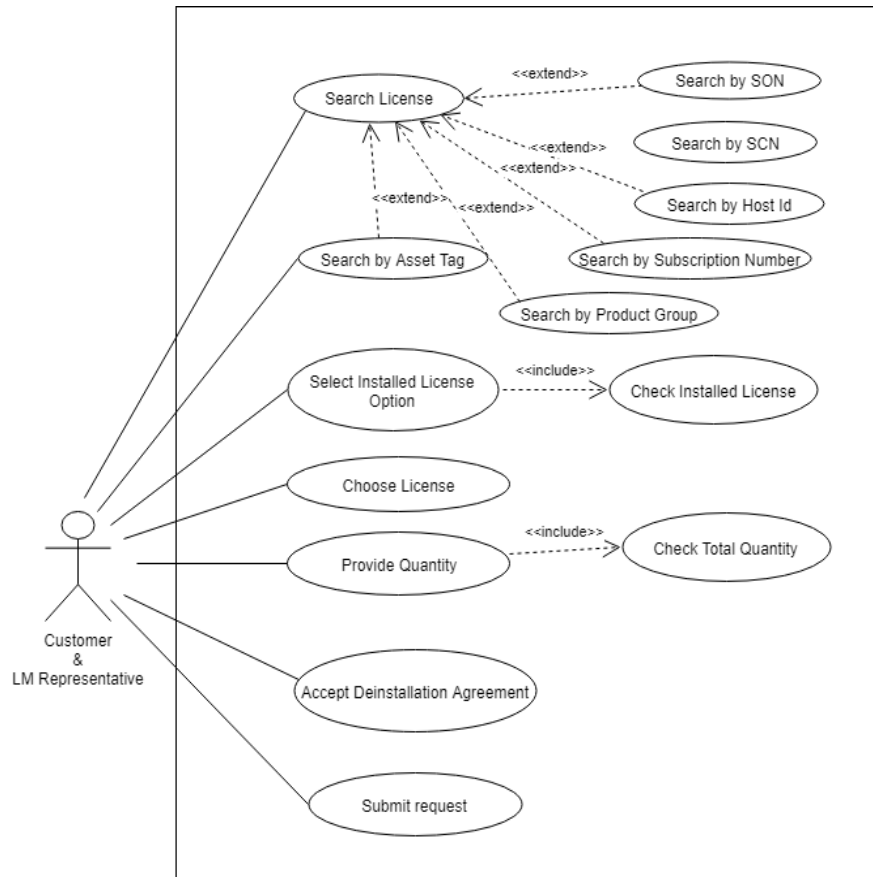
Install License



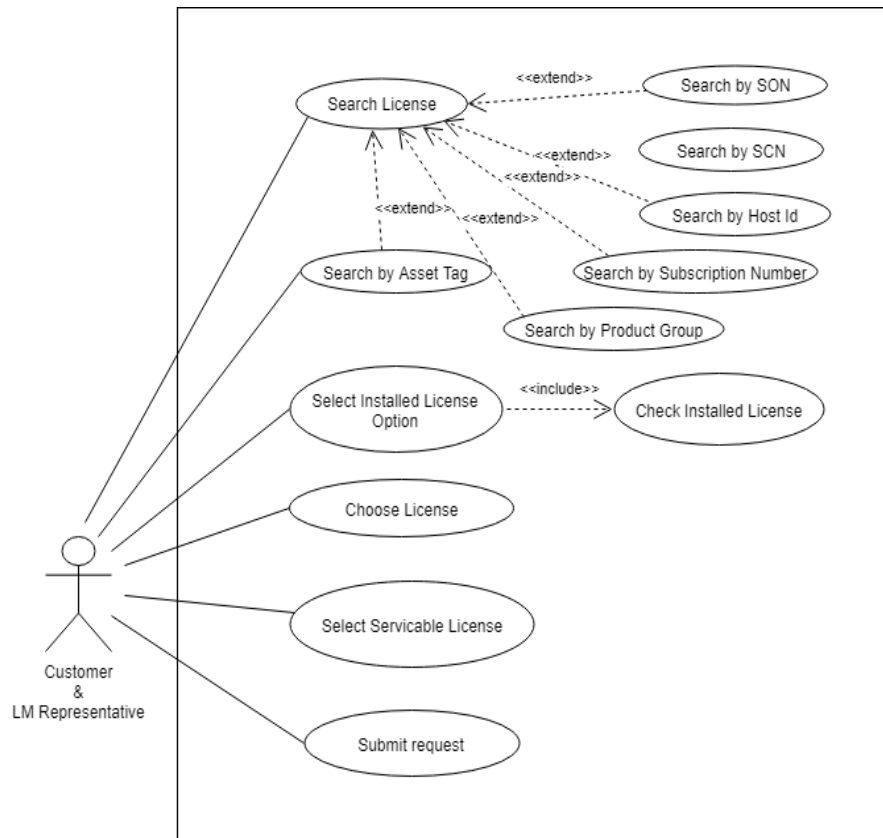
Move License



Deinstall License

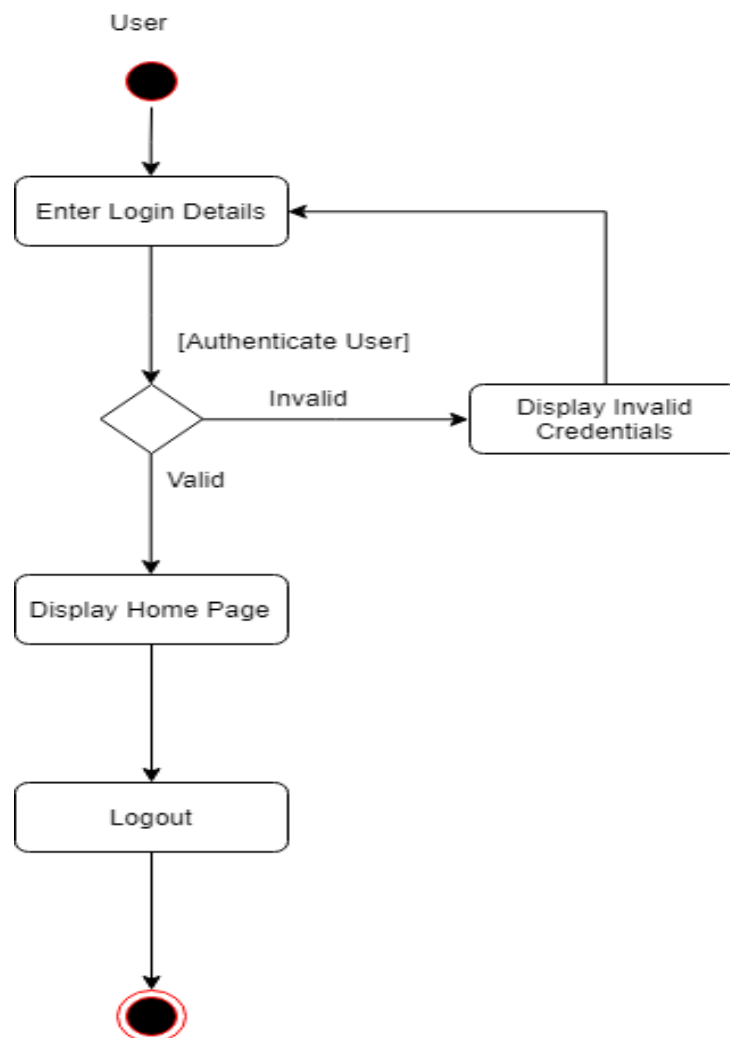


Manage Temporary Lock Licenses

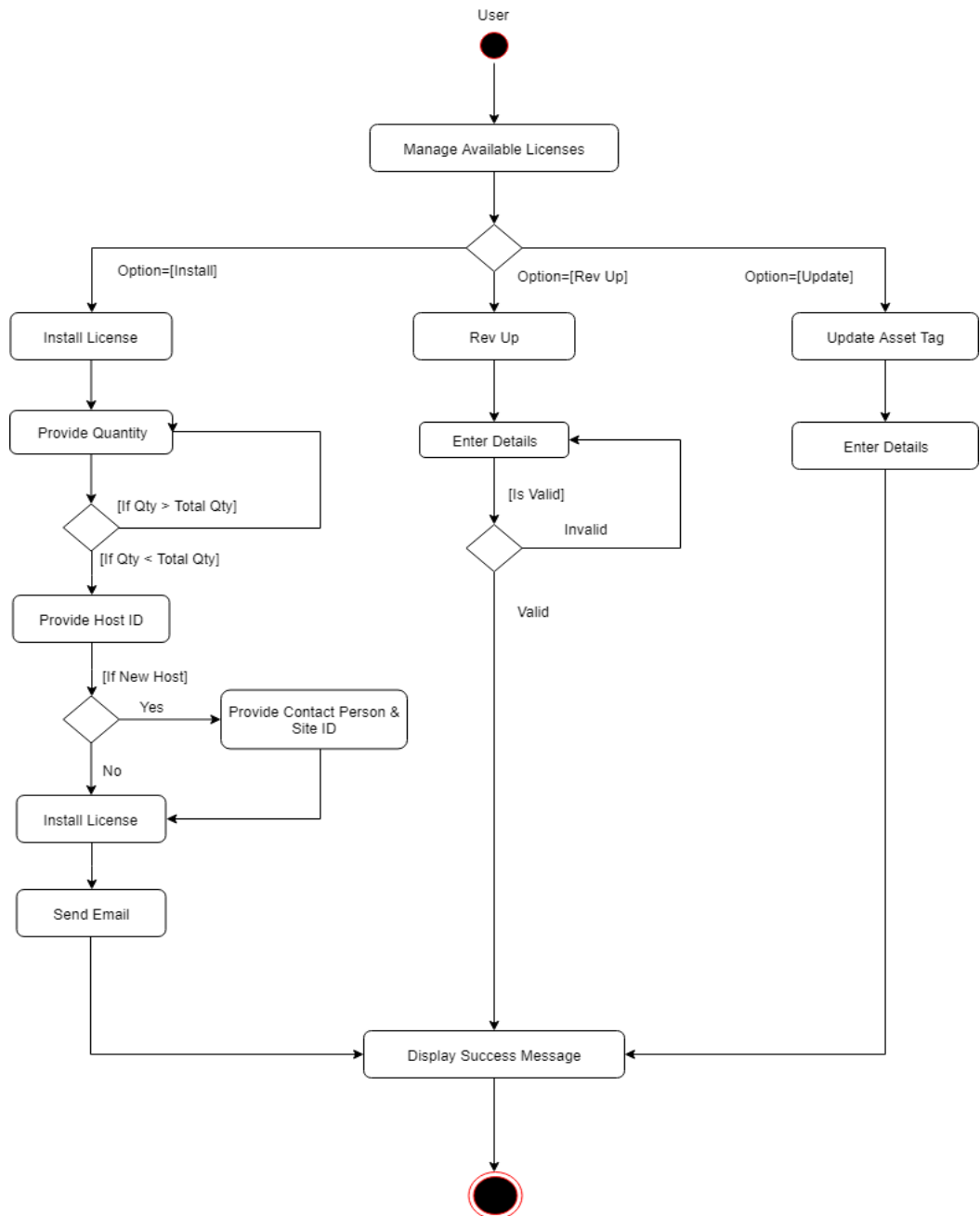


3.4 Activity Diagrams

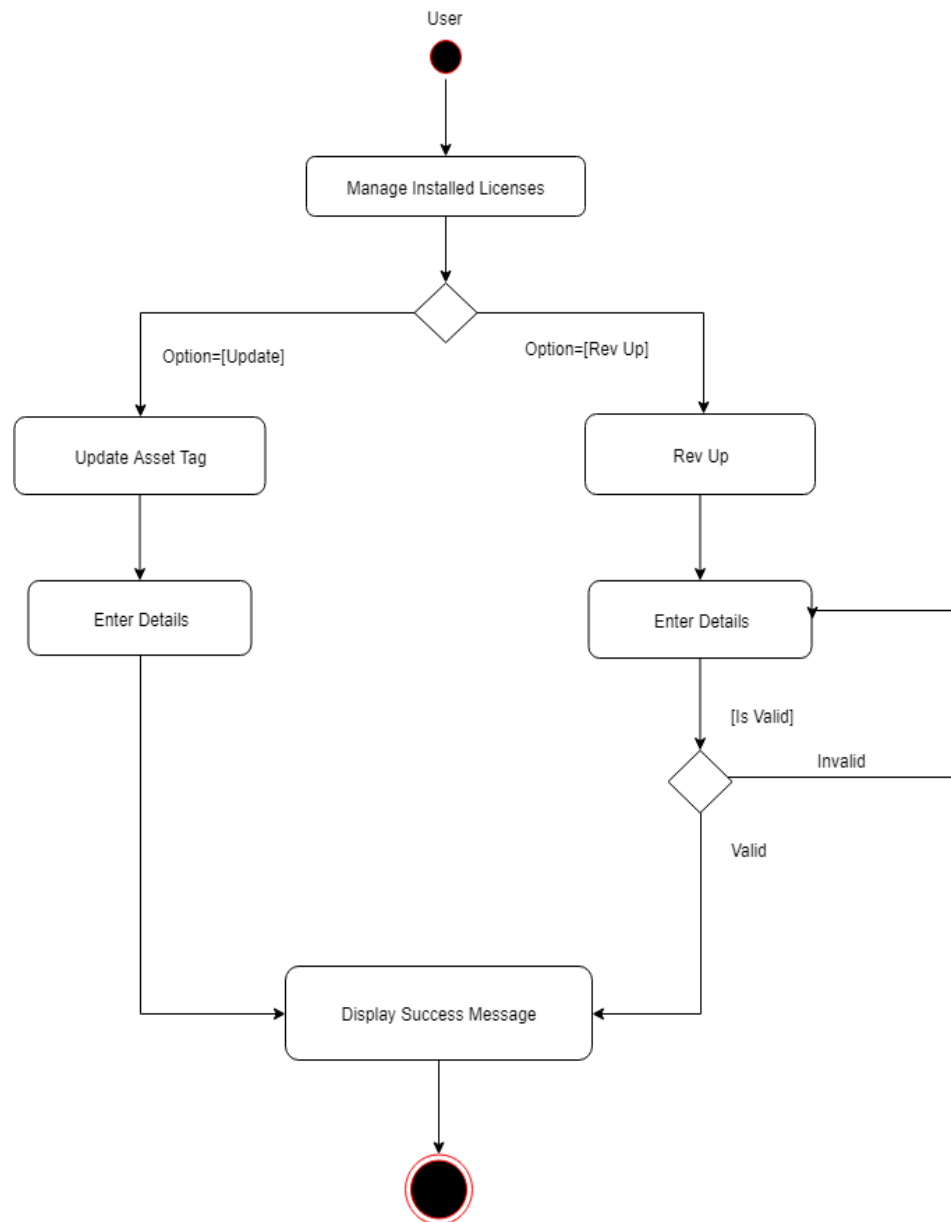
Login Activity



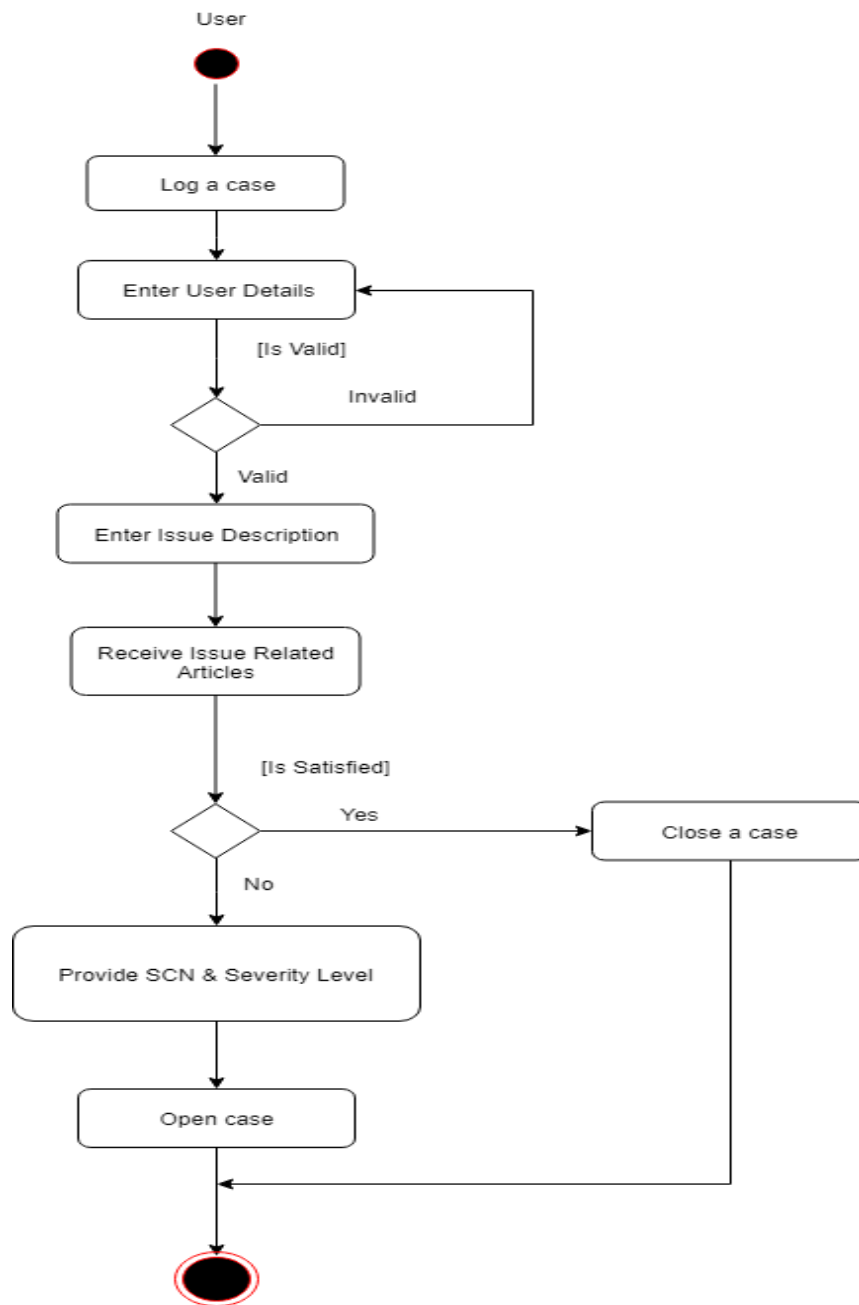
Available License Management Activity



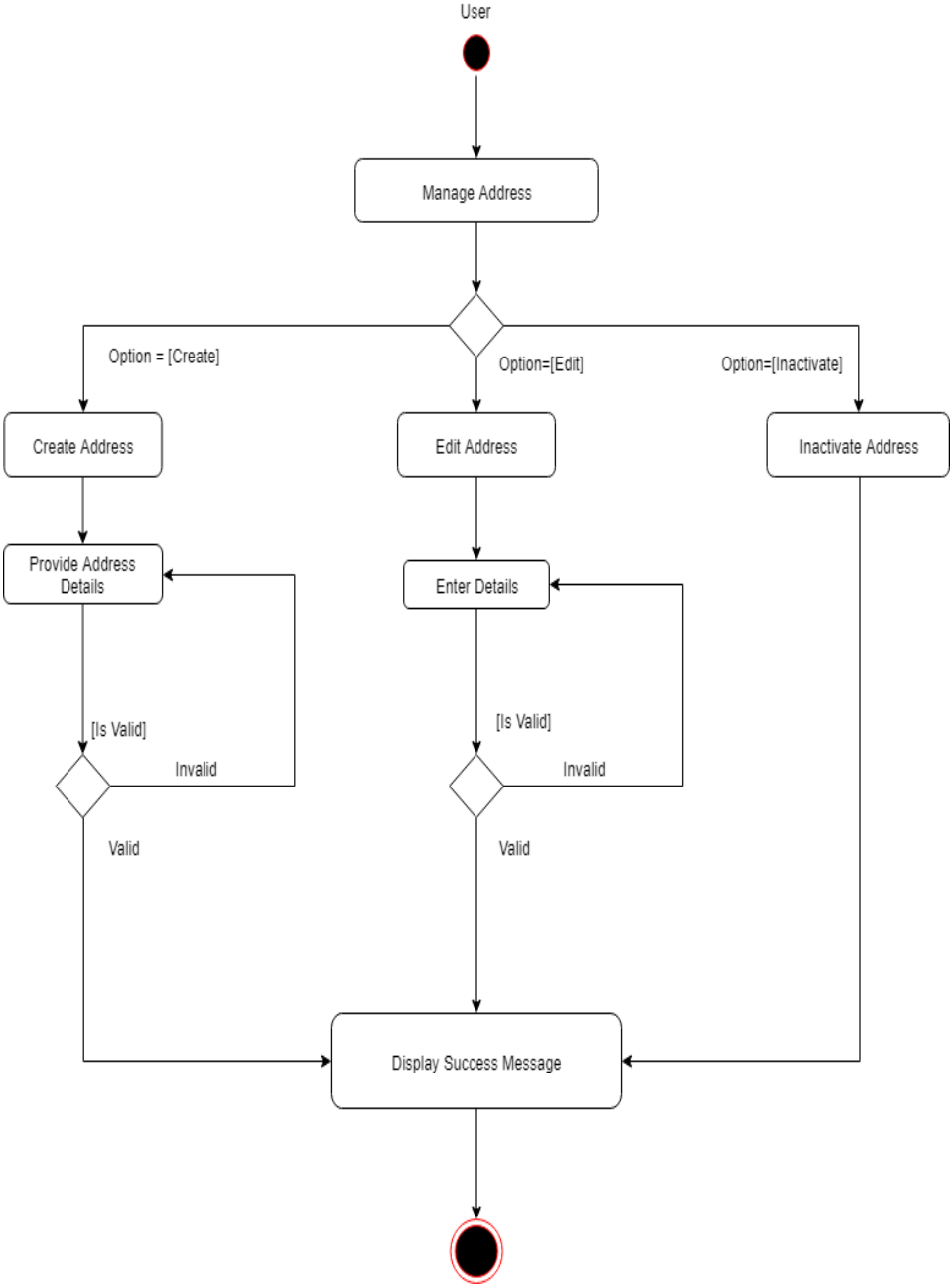
Installed License Management Activity



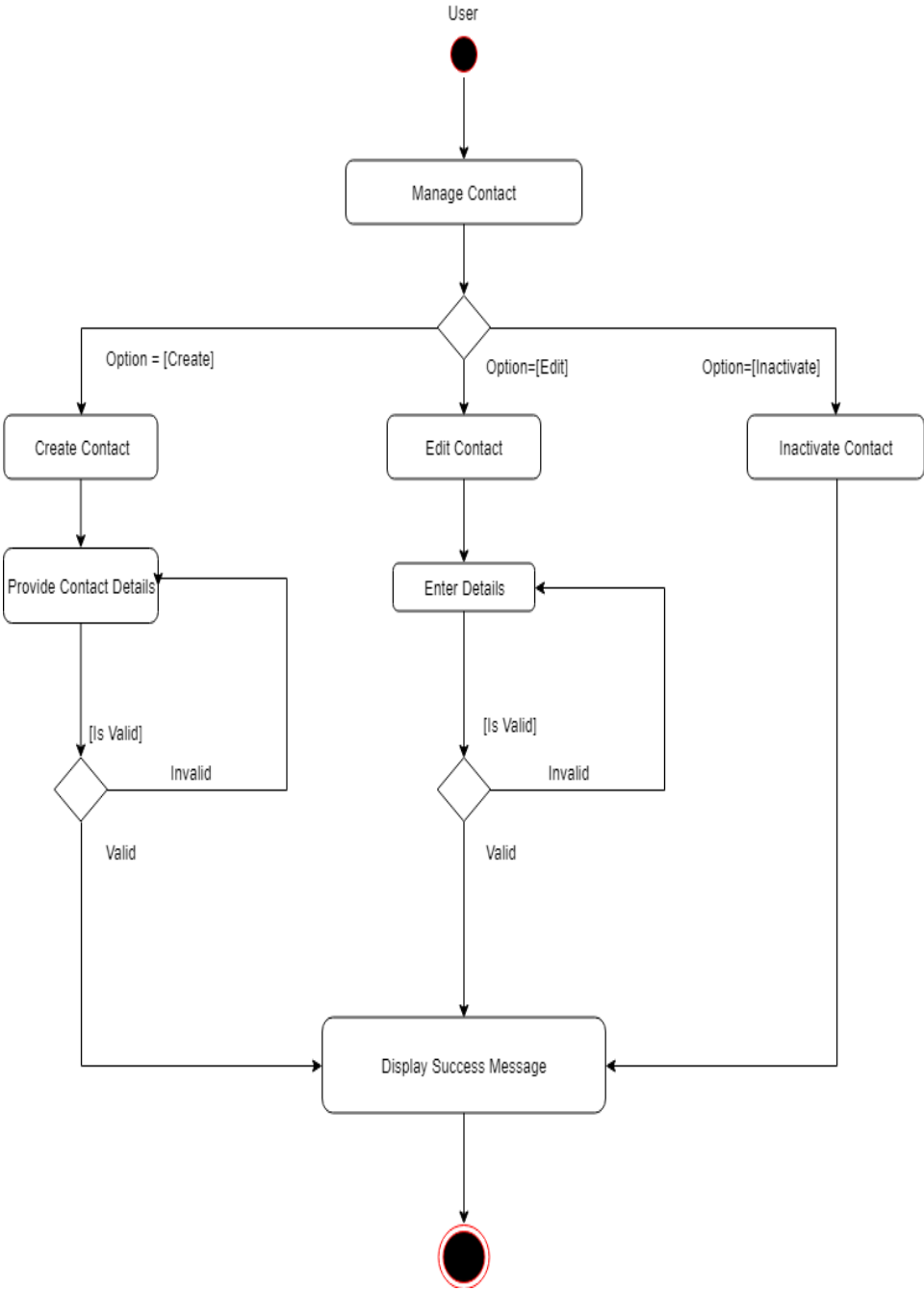
Case Logger Activity



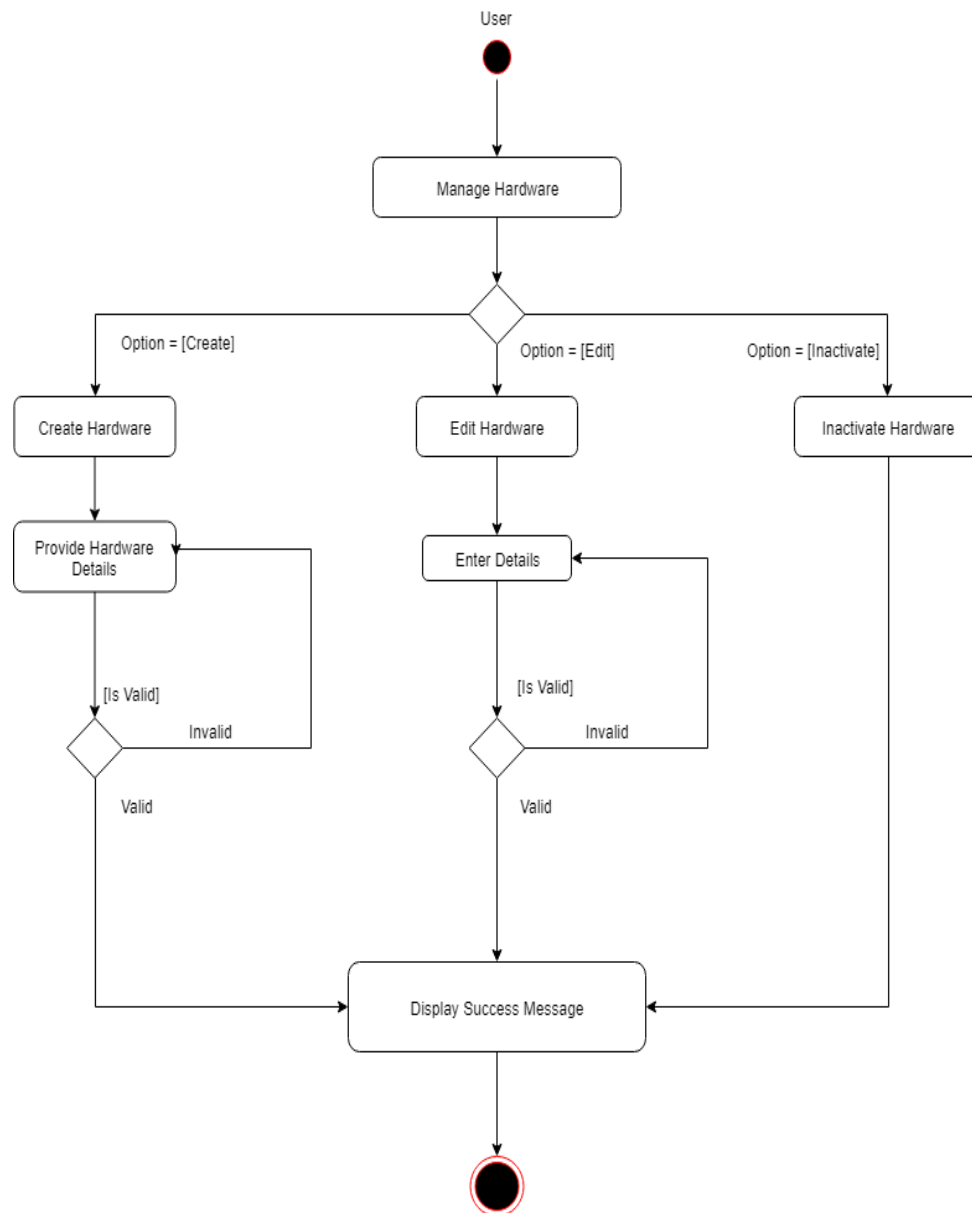
Address Management Activity



Contact Management Activity

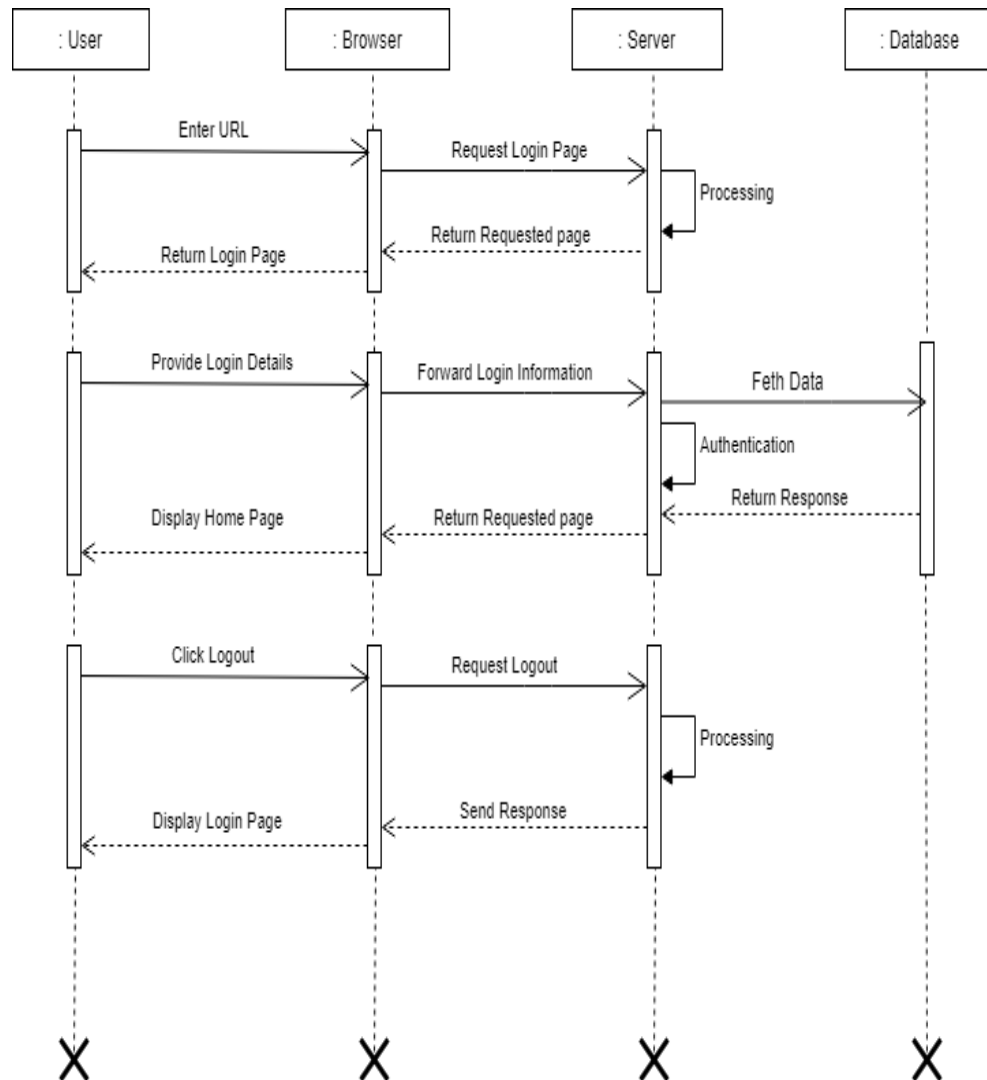


Hardware Management Activity

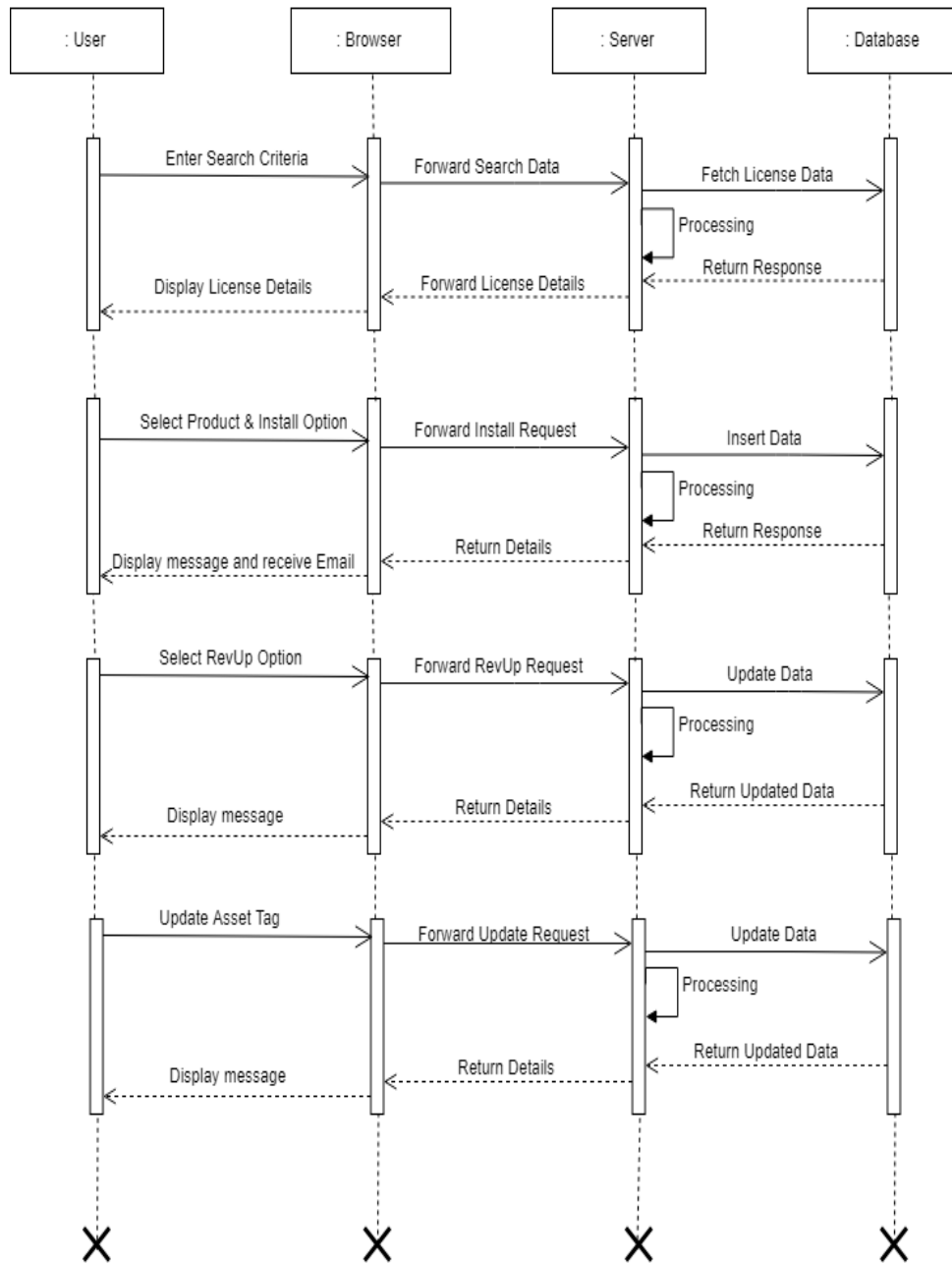


3.5 Sequence Diagram

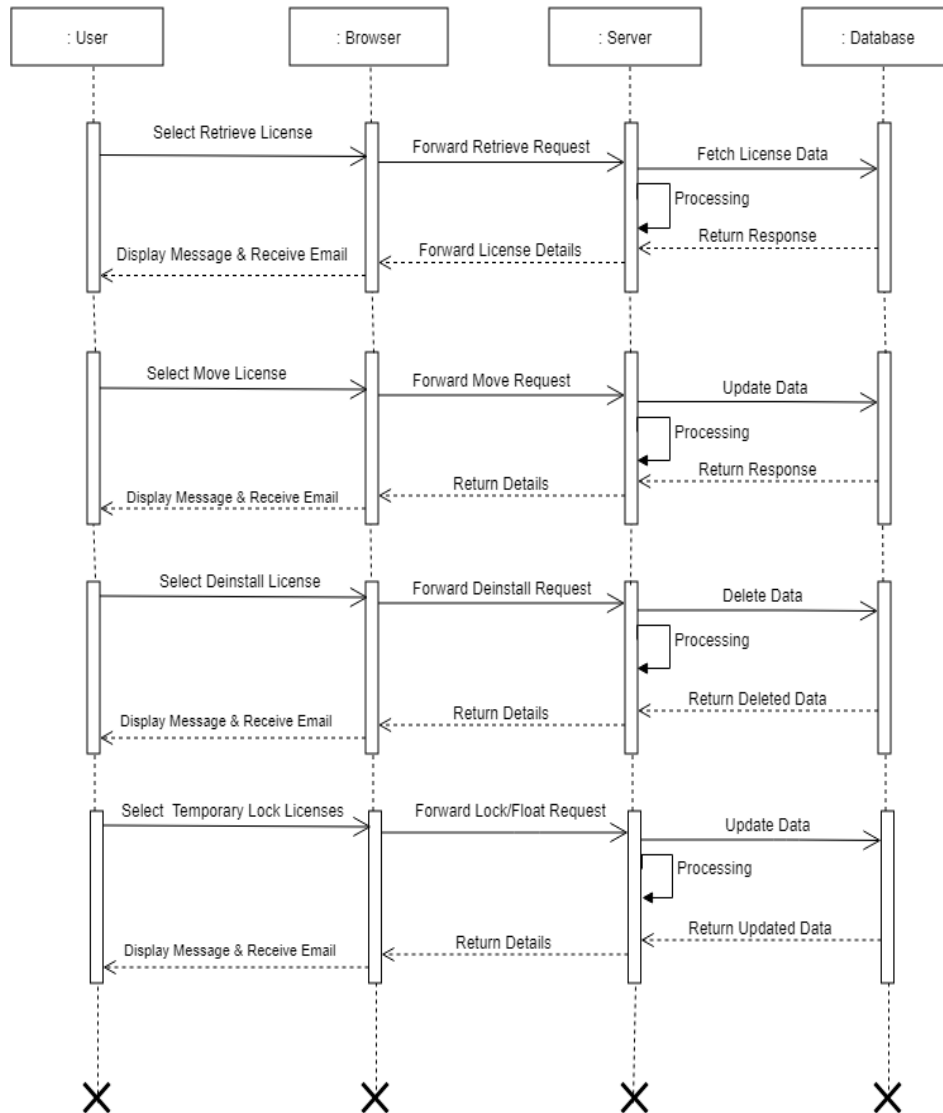
Login Sequence



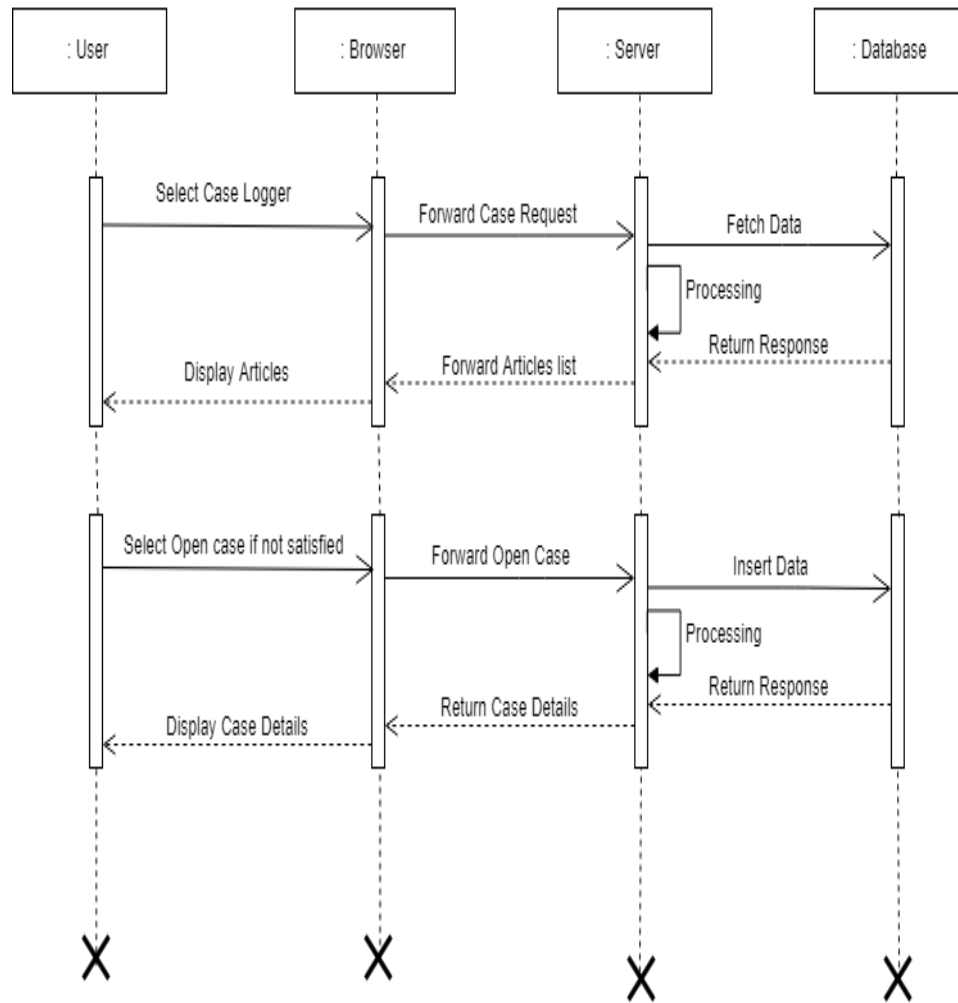
License Actions – Search, Install and RevUp



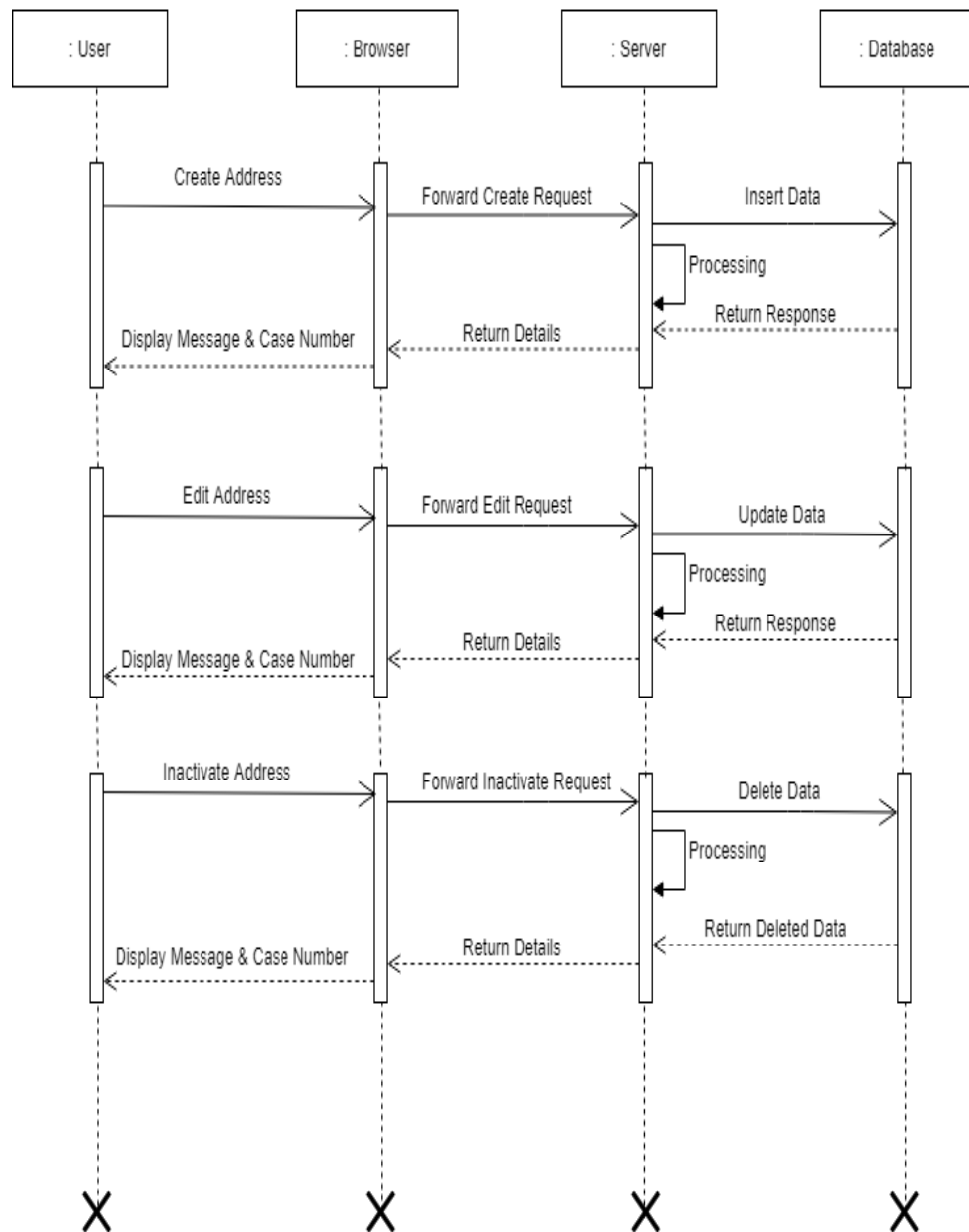
License Actions – Retrieve, Move, Deinstall, Temporary Lock Licenses



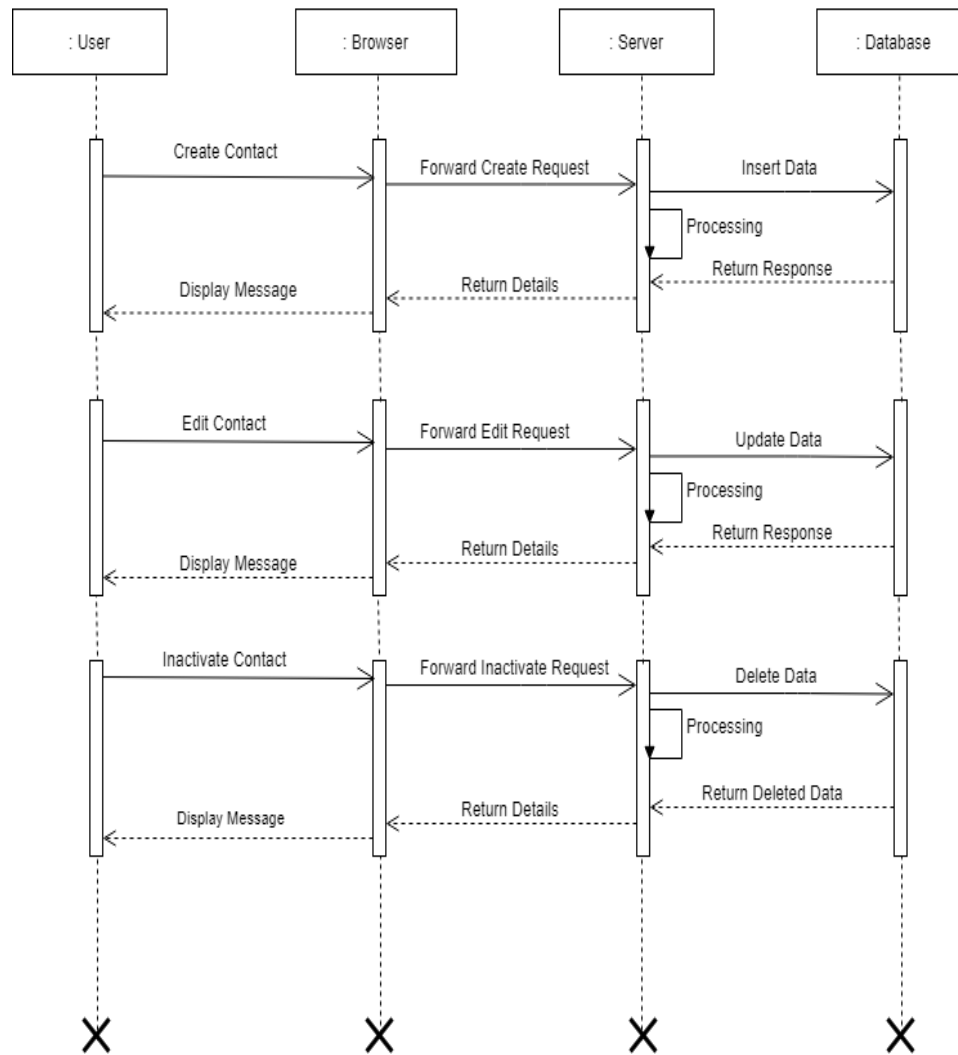
Case Logger



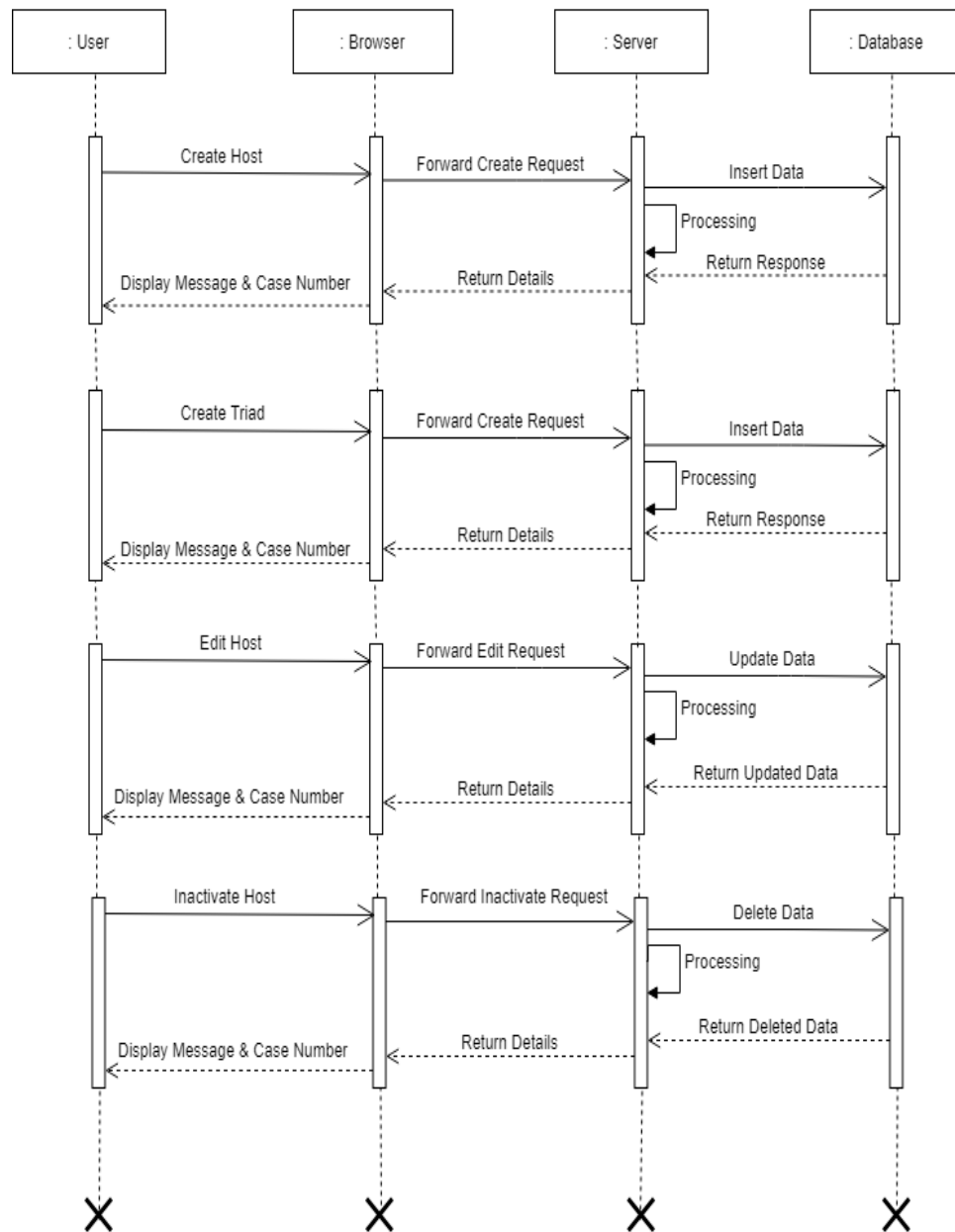
Address Management



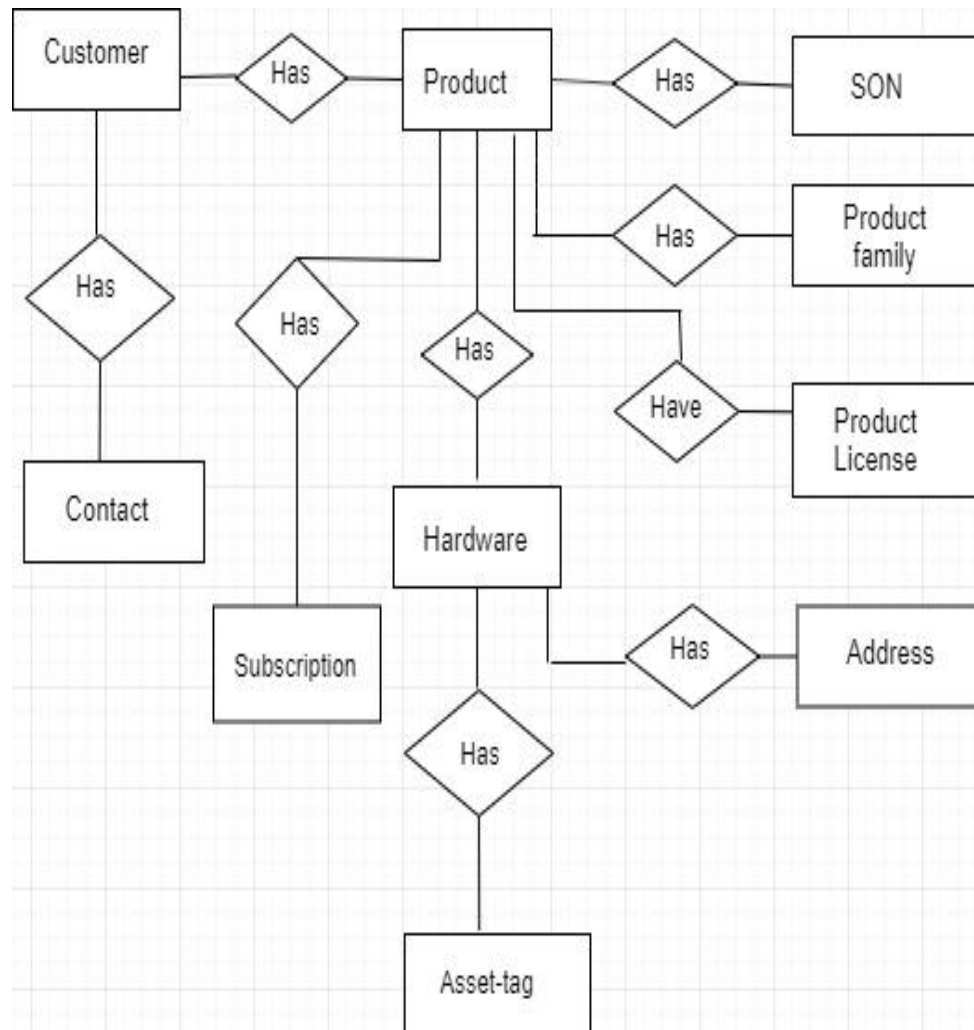
Contact Management



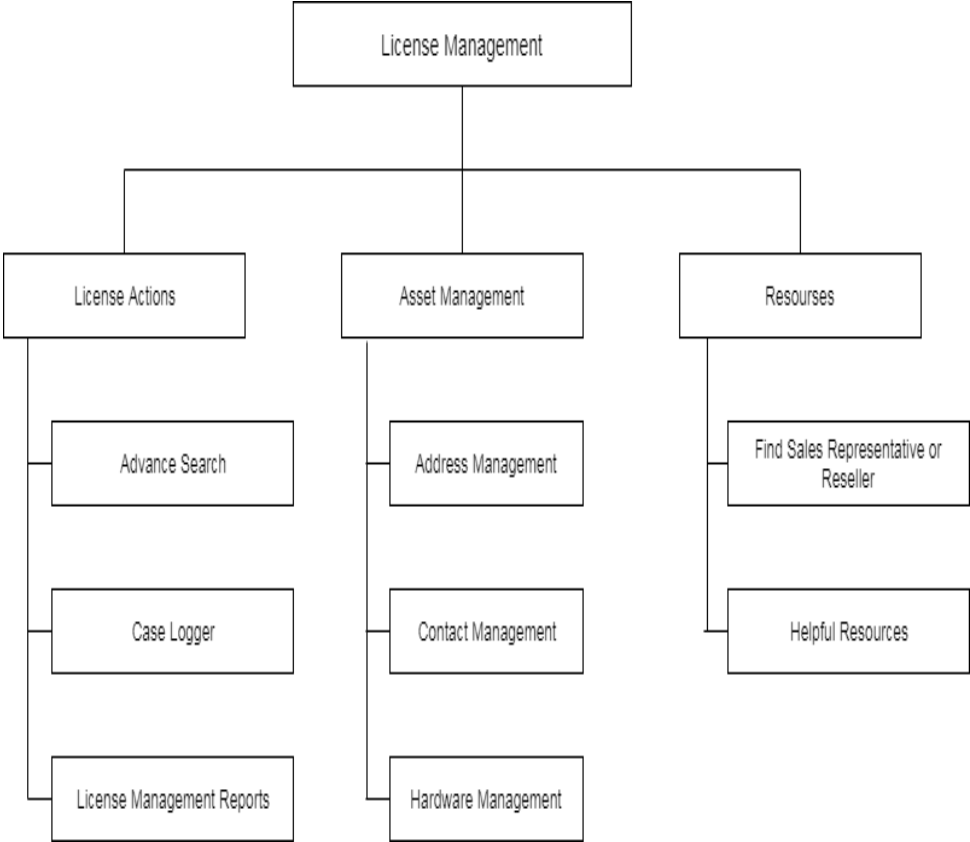
Hardware Management



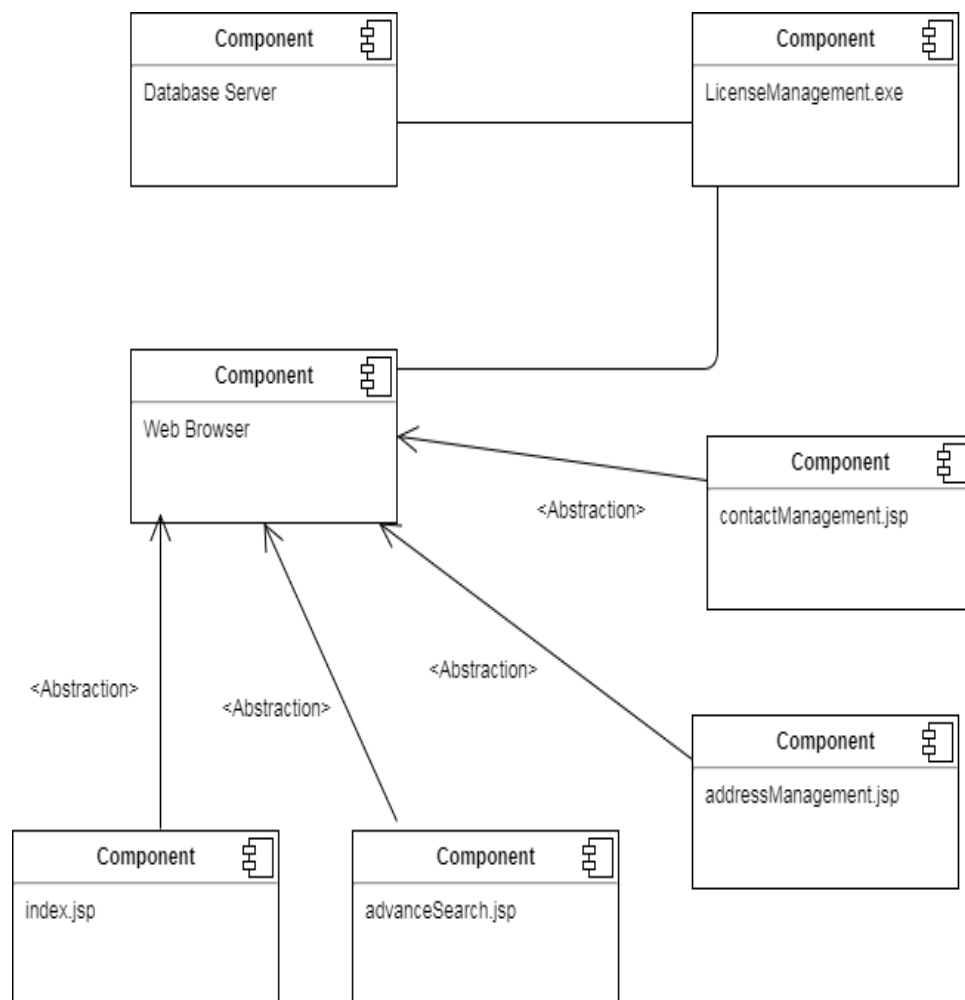
3.6 Entity Relationship Diagram



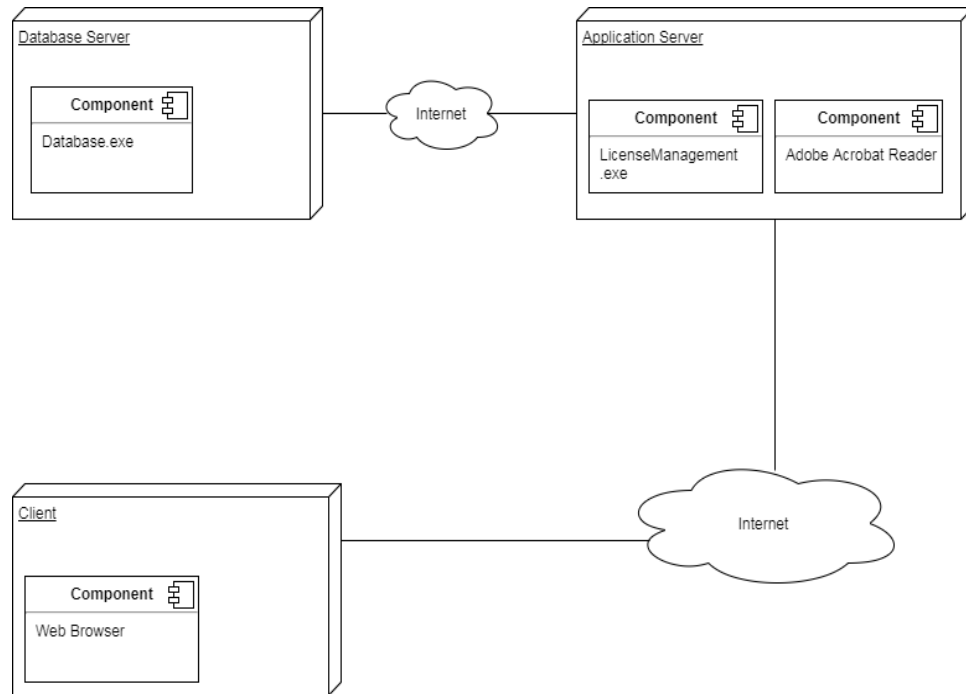
3.7 Module Hierarchy Diagram



3.8 Component Diagram



3.9 Deployment Diagram



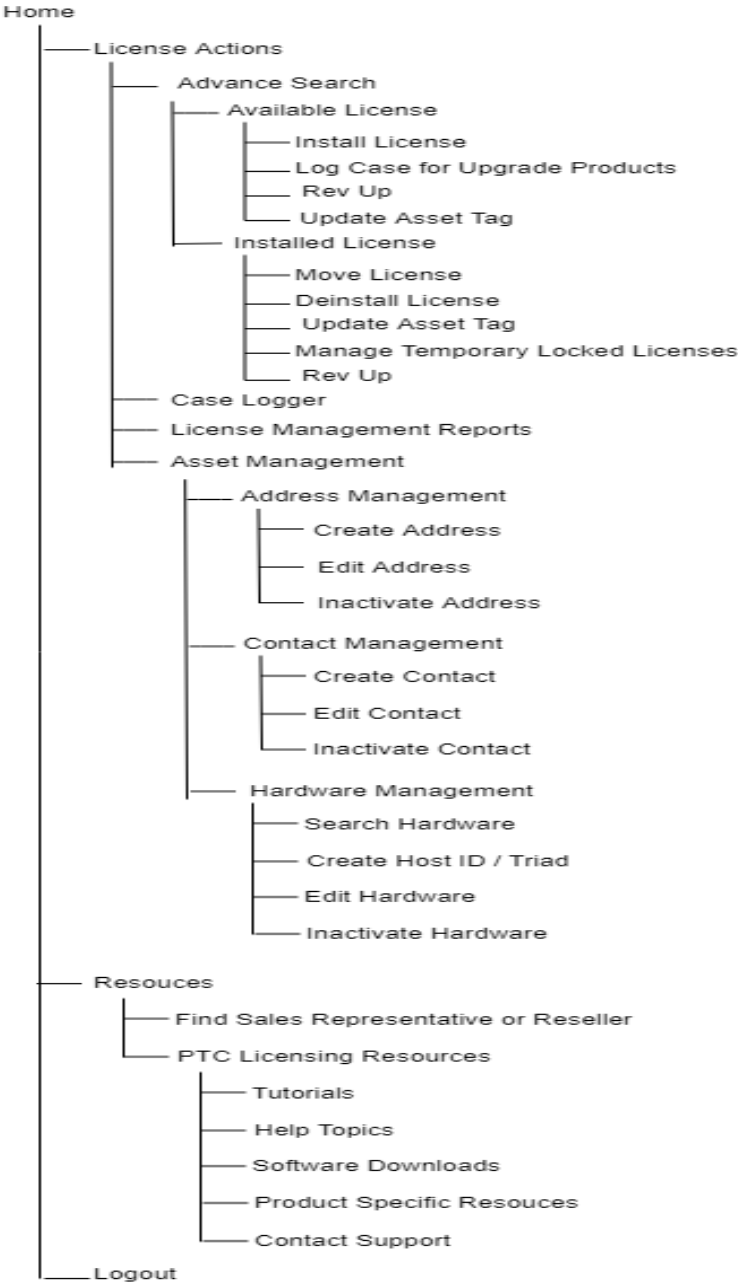
3.10 Module Specifications

User:

- Search License
- Install License
- Move License
- Retrieve License
- Log a case
- View Case History
- Deinstall License
- Create Address
- Update Address
- Inactivate Address
- Generate License Report
- Search Hardware
- Create Host / Triad
- Update Host
- Inactivate Host
- Create Contact

- Update Contact
- Inactivate contact
- Find Sales Representative
- Find tutorials, help topics and Product Specific Resources.

3.11 Web Site Map

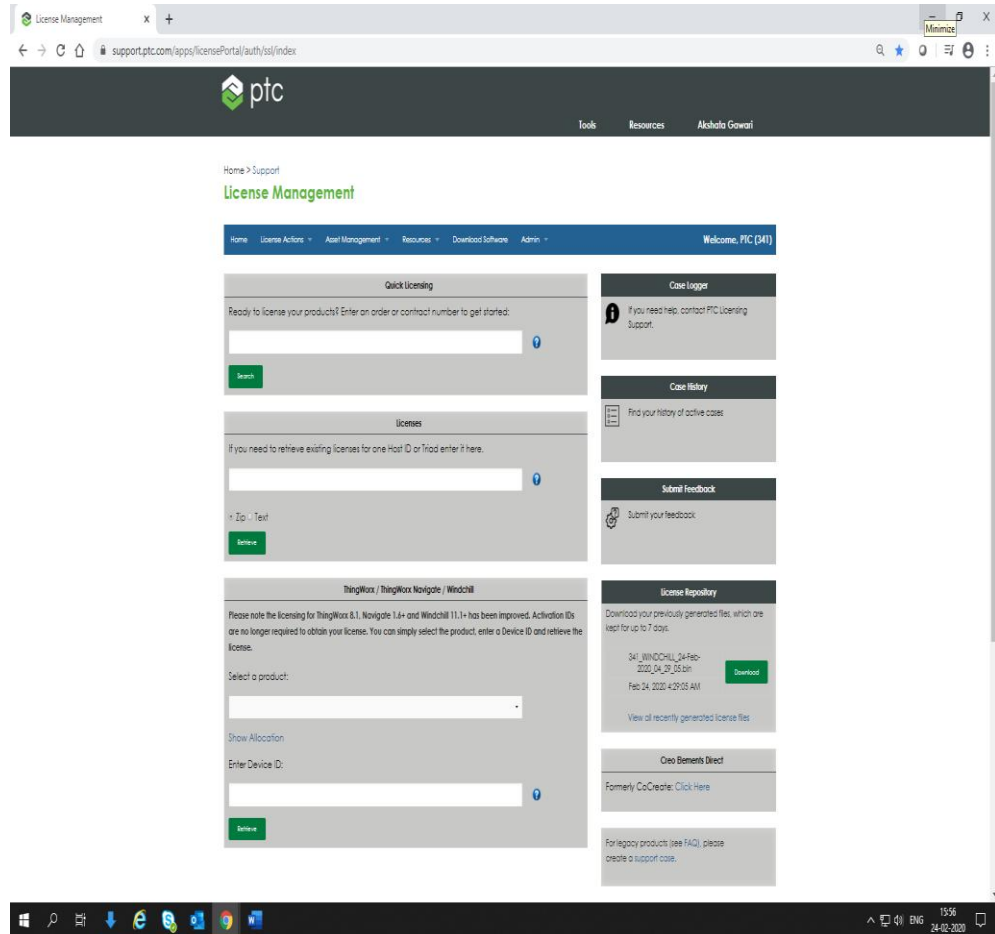


3.12 User Interface Design (Screens)

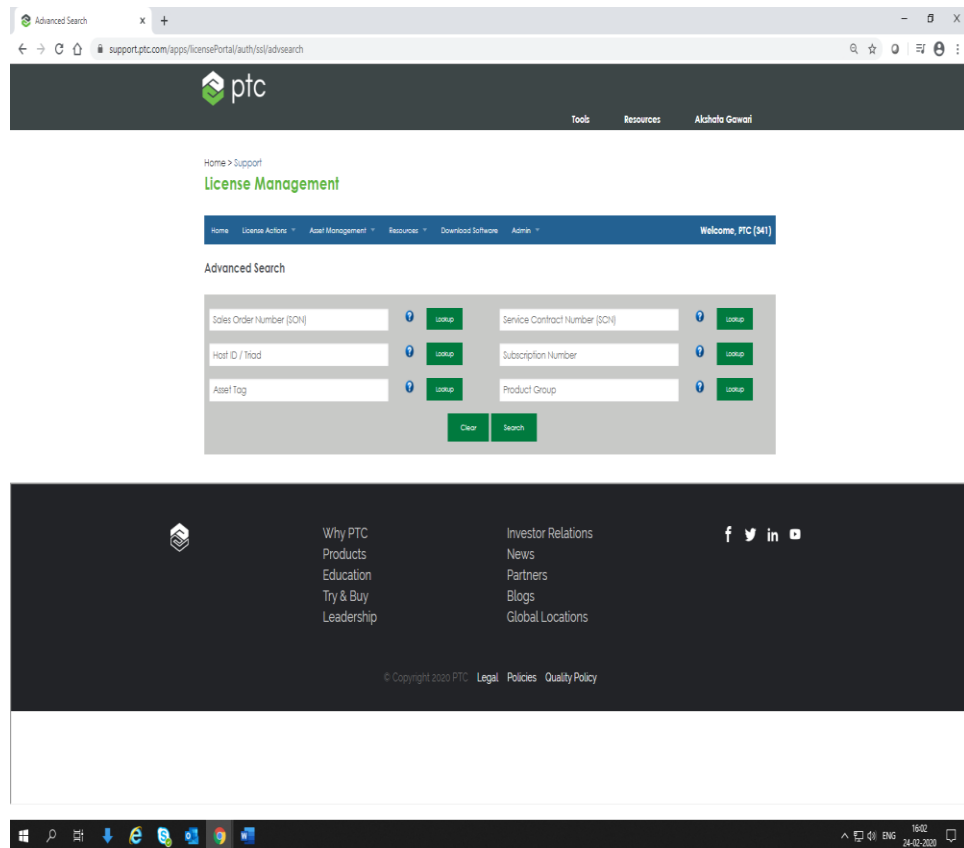
- **Create a new Customer Account.**

The screenshot shows a web browser window with the URL `support.ptc.com/appserver/common/account/createAccount.jsp`. The page title is "Create New PTC eSupport Account". The PTC logo is in the top left, and navigation links for "Tools", "Resources", and "Akshata Gowari" are in the top right. The page has a dark header bar with the PTC logo and navigation links. Below the header, the page title "Create New PTC eSupport Account" is displayed. There are four tabs: "New Customer" (selected), "Partner", "Basic", and "Academic". A note states "All fields marked with a * are required". The form includes fields for: First Name, Last Name, Title, E-mail (with a note "This will be your username"), Confirm E-mail, Telephone, Address, City, State/Province (dropdown), Zip/Postal Code, Country (dropdown, set to "India"), and Preferred Language (dropdown, set to "English"). There is a checkbox for "I would like to receive PTC product and services related e-mail." with "Yes" and "No" options. Below this are fields for Password and Confirm Password. A note states "You must complete this section to create a Customer Account to gain access to all Support entitled areas of PTC.com." This is followed by a "Customer Number" field and a section for verification information: "Please supply one of the following pieces of information for verification." with fields for "Service Contract Number (SCN)", "Sales Order Number (SON)", and "Site Number". A "PTC Security Challenge" section asks the user to enter the last five numbers of an order number, with the example "622095" shown. At the bottom, there are "Back" and "Create Account" buttons, and a note: "PTC collects, transfers and uses your data in accordance with PTC's Privacy Policy. By continuing you agree that you have read and agree with our Privacy Policy." The Windows taskbar is visible at the bottom of the browser window.

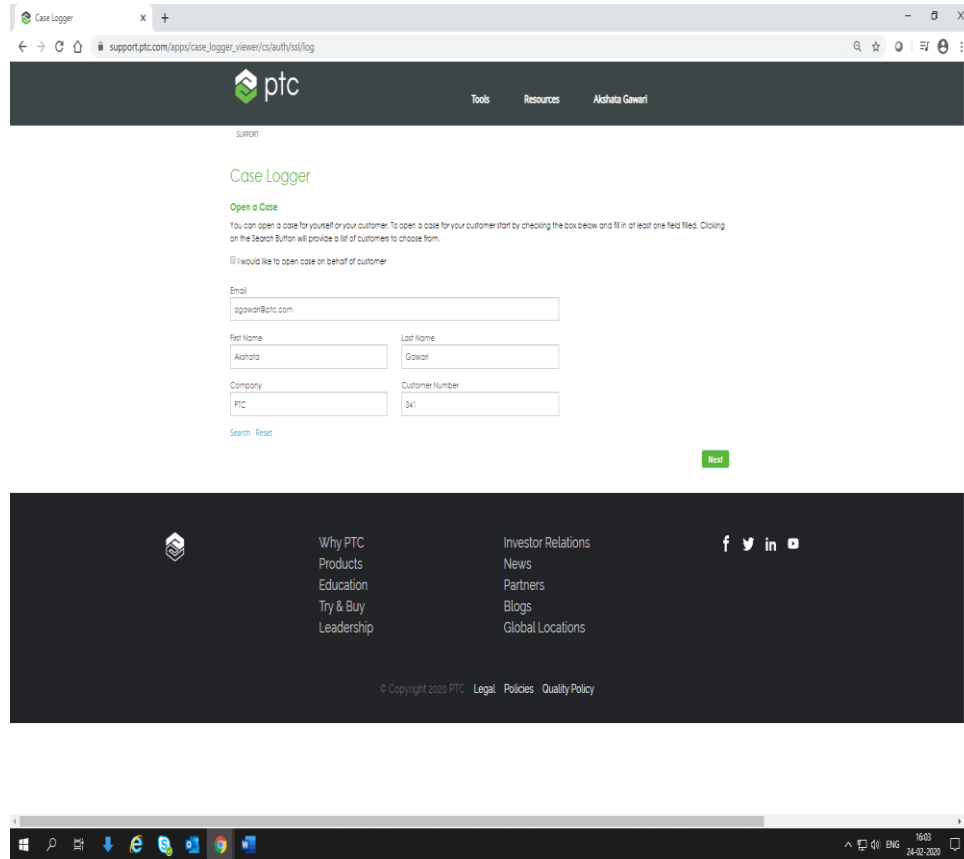
- **Home Page**



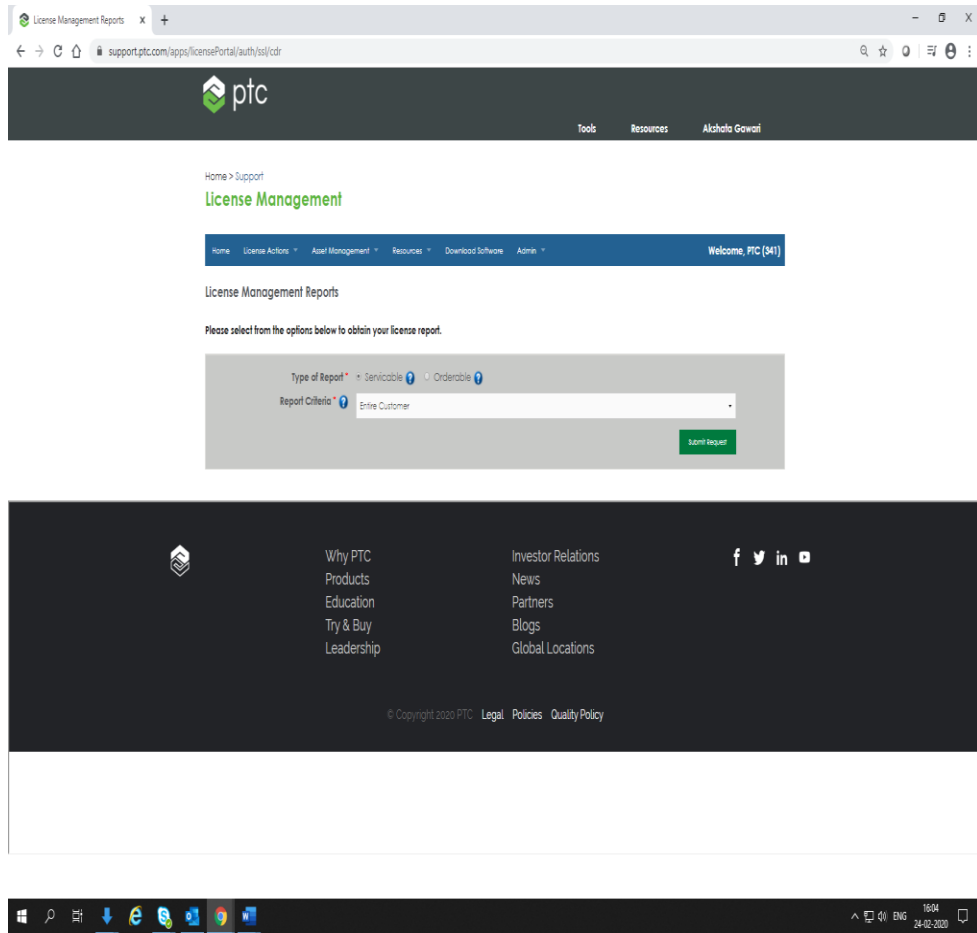
- **Advanced Search**



- **Case logger**



- **License Management Reports**



- **Address Management**

Home > Support
License Management

Home License Actions Asset Management Resources Download Software Admin Welcome, PTC [M1]

Address Management

Please select one of the options below to modify an address.

Create Address

Show 10 entries

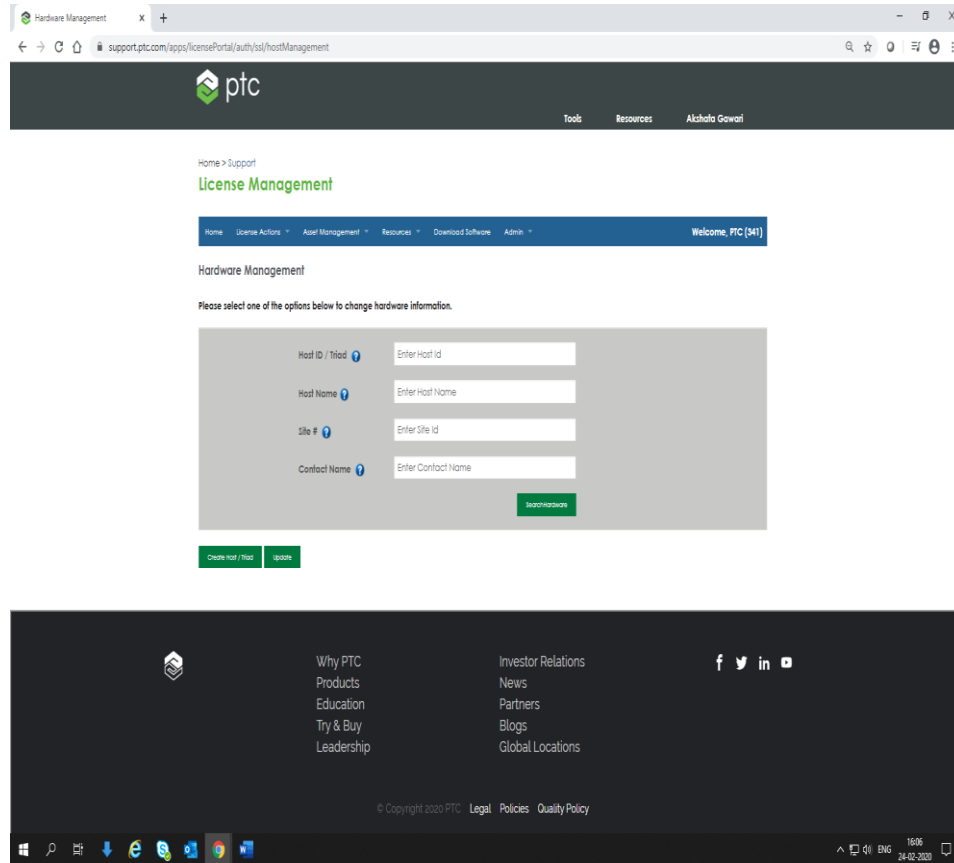
Site	Customer Name	Division	Address	City	State/Province	Postal Code	Country	Action
127524	PTC	AE	Room B1.11F No.6, Shihwe 3rd Rd	KACHUNG		80250	Taiwan	Edit deactivate
137204	PTC		125 WOLF ROAD	ALBANY	NY	12205	United States	Edit deactivate
137214	PTC	SS NO AMERICA DIVISON	40 UNION CHURCH ROAD	DILLSBURG	PA	17019	United States	Edit deactivate
137226	PTC		PASEO DE LA CASTELLANA, 141	MADRID		28046	Spain	Edit deactivate
138733	PTC		4917 ALBERMARLE ROAD	CHARLOTTE	NC	28205	United States	Edit deactivate
156609	PTC		302 NORTHWEST MIDDLE ROAD AT	BETTENDORF	IA	50722	United States	Edit deactivate
166386	PTC		9508 ORANGE STREET	ALTA LOMA	CA	91737	United States	Edit deactivate
177683	PTC		7 NORTH LAURENS STREET	GREENVILLE	SC	29601	United States	Edit deactivate

- **Contact Management**

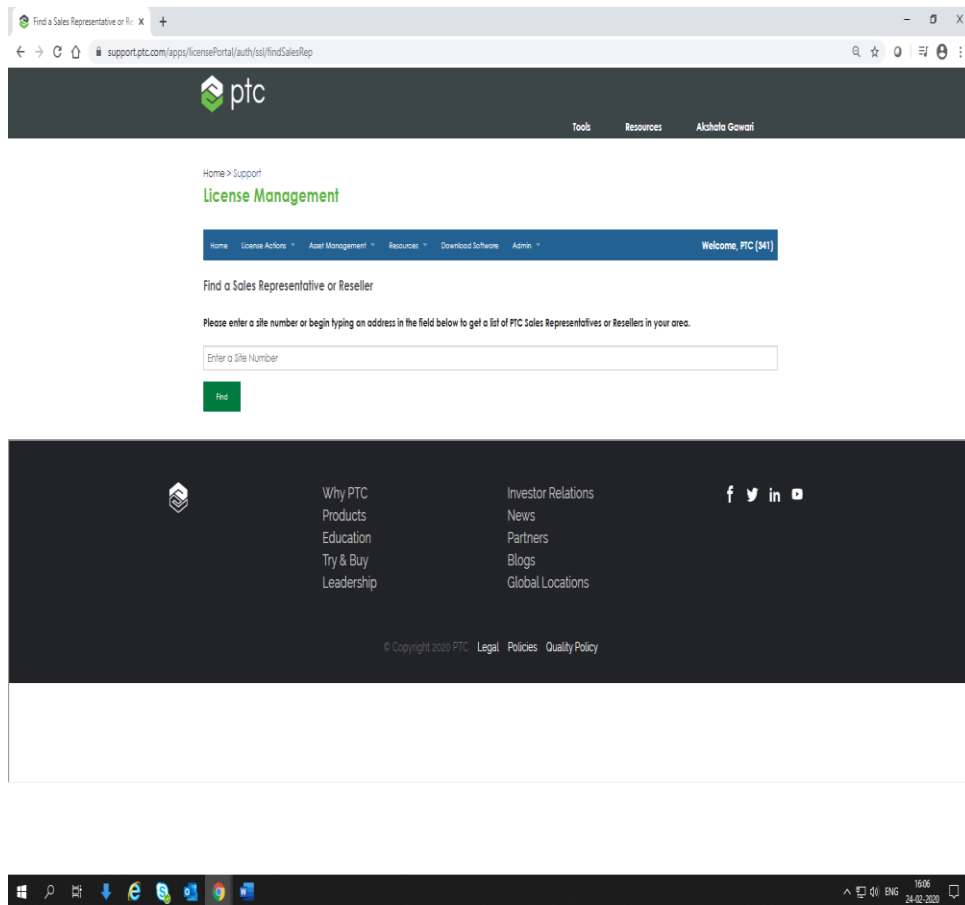
The screenshot shows a web browser window with the URL `support.ptc.com/apps/licensePortal/auth/ss/contactDetails`. The page header includes the PTC logo and navigation links for Tools, Resources, and Akshata Gawari. The main content area is titled "License Management" and includes a breadcrumb "Home > Support". A blue navigation bar contains links for Home, License Actions, Asset Management, Resources, Download Software, and Admin, along with a "Welcome, PTC (341)" message. Below this, the "Contact Management" section prompts the user to "Please select one of the options below to modify contact information." and features a "Create Contact" button. A table displays a list of contacts with columns for Last Name, First Name, Email, Phone, and Action. Each row includes an "Edit" button and a "Deactivate" link. The table data is as follows:

Last Name	First Name	Email	Phone	Action
LANDRETH	DAVID	dlandreth@ptc.com	956-1100	Edit Deactivate
SCHARRENBURG	DIRK	dscharrenberg@ptc.com	32104-564	Edit Deactivate
AGRAWAL	RAJIV	ragrawal@ptc.com	370-5279	Edit Deactivate
Stimmer	URS	ustimmer@ptc.com	02434638	Edit Deactivate
HANTEN	MIKE	mhanten@ptc.com		Edit Deactivate
HEPLER	BRENT	bhepler@ptc.com	800-0026	Edit Deactivate
MOTODA	YUTAKA	ymotoda@ptc.com	33044-8285	Edit Deactivate
FOUND	LYLE	lfound@ptc.com	765-3046	Edit Deactivate

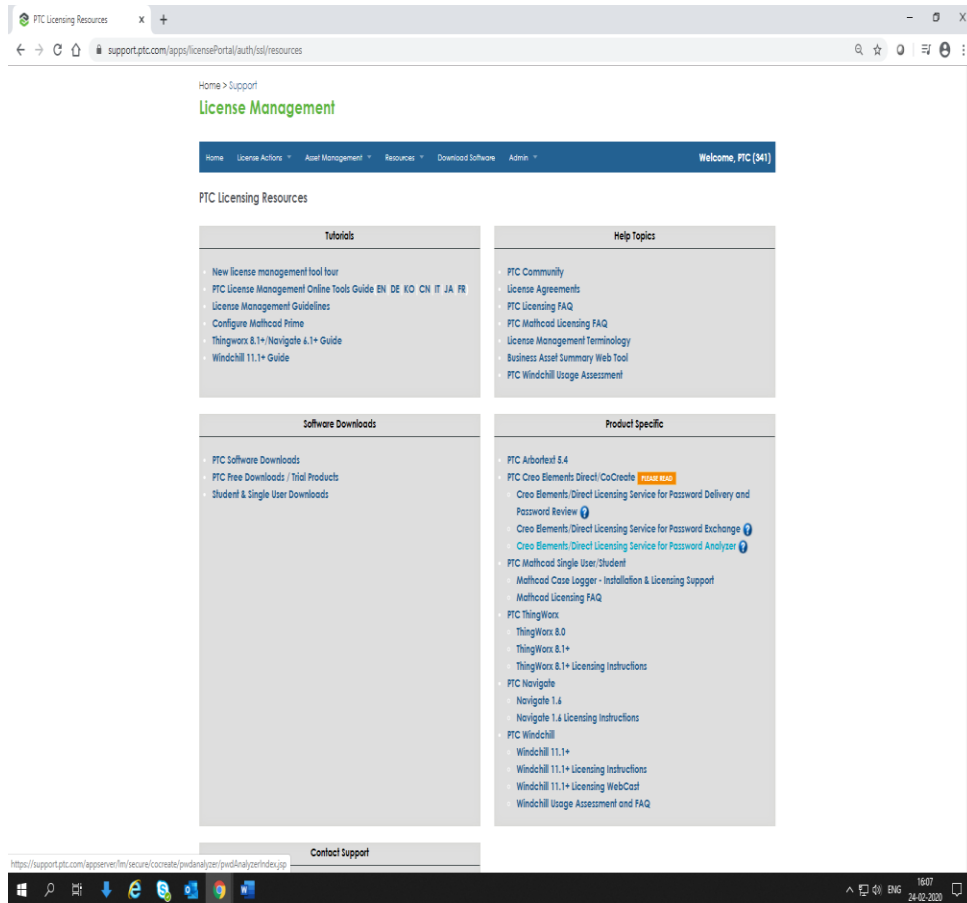
- **Hardware Management**



- **Find a Sales Representative or Reseller**



- **PTC Licensing Resources**



3.13 Data Dictionary

Sr. no	Field Name	Data Type	Description	Table Name
1.	Customer_number	Int(6)	Customer Numbet	Customer
2.	Customer_name	Varchar(10)	Customer Name	Customer
3.	Type	Varchar(10)	Type of Customer	Customer
4.	Sales_order_number	Int(6)	Sales order number	SON
5.	Customer_number	Varchar(10)	Customer Name	SON
6.	Subscription_number	Int(6)	Subscription number	Customer subscribtion
7.	Customer_number	Int(6)	Customer Name	Customer subscribtion
8.	Product_family_id	Int(6)	Product family id	Product family
9.	consumer_number	Int(33)	Consumer number	Product family
10	Product_family	Varchar(10)	Product family name	Product family
11	Product_family_description	Varchar(50)	Product family description	Product family
12	Product_id	Int (10)	Product id	Product
13	Product_code	Int (10)	Product	Product

			code	
14	Product_name	Varchar(10)	Product name	Product
15	Product_description	Varchar(50)	Product description	Product
16	Product_version	Varchar(6)	Product version	Product
17	Quantity	Int(6)	Quantity of product	Product
18	Product_family_id	Int(6)	Product family id	Product
19	Customer_number	Int(6)	Customer number	Product
20	Product_lic_type_id	Int(6)	License type id	PRODUCT_LIC_TYPE
21	Product_family	Varchar(10)	Product family	PRODUCT_LIC_TYPE
22	Product_description	Varchar(50)	Product description	PRODUCT_LIC_TYPE
23	Product_version	Int(6)	Version of product	PRODUCT_LIC_TYPE
24	Product_lic_type	Varchar(10)	Type of license	PRODUCT_LIC_TYPE
25	License_number	int (10)	License number	License Table
26	Support_End_Date	date	End date	License Table
27	Status	Varchar(10)	Status	License Table

28	Customer_number	Int(6)	Consumer Id	License Table
29	Product_id	int (6)	Product id	License Table
30	AssetTag	Varchar(10)	Asset tag	Asset Tag
31	Customer_number	int (6)	Customer number	Asset Tag
32	Address_id	id (6)	Address id	Asset Tag
33	City	vvarchar(10)	Name of city	Asset Tag
34	State_province	vvarchar (33)	State	Asset Tag
35	Country	vvarchar (33)	country	Asset Tag
36	Product_description	vvarchar(50)	Product description	Asset Tag
37	Version	int (6)	version	Asset Tag
38	Customer_number	Int(6)	customer number	Asset Tag
39	Contact_id	Int(6)	Contact id	Contacts
40	First_name	vvarchar (10)	First name	Contacts
41	Last_name	Vvarchar(10)	Last name	Contacts
42	Email	Vvarchar(10)	email	Contacts
43	Phone	Int (10)	phone	Contacts
44	Customer_number	Int (10)	Customer	Contacts

			number	
45	Host_id	Int(33)	Host id	Hardware
46	Host_name	Varchar(10)	Host name	Hardware
47	Installation_site	Varchar(10)	site	Hardware
48	Customer_number	int (6)	Customer name	Hardware
49	Contact_id	Int(6)	Contact id	Hardware

3.14 Table Specifications

Master Tables :

1) Customer Table

Field Name	Data Type	Size	Constraints	Description
Customer_number	Int	6	Primary Key	Identifies Customer uniquely
Customer_name	Varchar2	50	Not Null	Name of customer
Type	Varchar2	50	Not Null	Type of customer

2) SON Table

Field Name	Data Type	Size	Constraints	Description
Sales_order_number	Int	6	Primary Key	Number associated with each purchase order
Customer_number	Int	6	Foreign key	References from Customer table

3) Customer Subscription Table

Field Name	Data Type	Size	Constraints	Description
Subscription_number	Int	6	Primary Key	Identifies Subscription uniquely
Customer_number	Int	6	Foreign key	References from Customer table

4) ProductFamily Table

Field Name	Data Type	Size	Constraints	Description
Product_family_id	Int	4	Primary Key	Identifies Product family uniquely
Product_family	Varchar2	50	Not Null	Product family code
Product_family_description	Varchar2	100	Not Null	Product family description
Customer_number	Int	6	Foreign key	References from Customer table

5) Product Table

Field Name	Data Type	Size	Constraints	Description
Product_id	Int	4	Primary Key	Identifies Product uniquely
Product_code	Varchar2	20	Not Null	Code associated to the product
Product_name	Varchar2	30	Not Null	Product name
Product_description	Varchar2	50	Not Null	Product description
Product_version	Varchar2	10	Not Null	Version of product
Quantity	Int	4	Not Null	Quantity of product
Product_family_id	Int	4	Foreign Key	References from ProductFamily
Customer_number	Int	6	Foreign key	References from Customer table

6) PRODUCT_LIC_TYPE Table

Field Name	Data Type	Size	Constraints	Description
Product_lic_type_id	Int	4	Primary Key	Identifies Product license type
Product_family	Varchar2	30	Not Null	Product name
Product_description	Varchar2	50	Not Null	Product description
Product_version	Varchar2	10	Not Null	Version of product
Product_lic_type	Varchar2	20	Not Null	Quantity of product

Transaction Tables:

1) License Table:

Field Name	Data Type	Size	Constraints	Description
License_number	Varchar2	50	Primary Key	Identifies License number uniquely
Support_End_Date	Date		Not Null	License Validity date
Status	Varchar2	10	Not Null	Status of license
Customer_number	Int		Foreign key	References from Customer table
Product_id	Int		Foreign Key	References from Product table

2) Asset Tag Table:

Field Name	Data Type	Size	Constraints	Description
AssetTag	Varchar2	10	Primary Key	AssetTag number
Customer_number	Int	6	Foreign key	References from Customer table

3) Address Table:

Field Name	Data Type	Size	Constraints	Description
Address_id	Int	5	Primary Key	Identifies Address uniquely
City	Varchar2	50	Not Null	City name
State_province	Varchar2	20	Not Null	State name
Country	Varchar2	20	Not Null	Country name
Product_description	Varchar2	50	Not Null	Product description
Version	Varchar2	10	Not Null	Version number
Customer_number	Int	6	Foreign key	References from Customer table

4) Contacts Table:

Field Name	Data Type	Size	Constraints	Description
Contact_id	Int	5	Primary Key	Identifies Contact uniquely
First_name	Varchar2	20	Not Null	First name
Last_name	Varchar2	30	Not Null	Last name
Email	Varchar2	30	Not Null	Email address
Phone	Varchar2	20	Not Null	Phone number
Customer_number	Int		Foreign key	References from Customer table

5) Hardware Table:

Field Name	Data Type	Size	Constraints	Description
Host_id	Varchar2	20	Primary Key	Identifies Host uniquely
Host_name	Varchar2	20	Not Null	Host name
Installation_site	Varchar2	50	Not Null	Site of Installation
Customer_number	Int	6	Foreign key	References from Customer table
Contact_id	Int	5	Foreign key	References from Contact table

3.15 Test Procedures and Implementation

1. Unit Testing

Unit testing concentrates verification on the smallest element of the program – the module. Using the detailed design description important control paths are tested to establish errors within the bounds of the module.

In this system each sub module is tested individually as per the unit testing such as campaign, lead, contact etc are tested individually. Their input field validations are tested.

2. Integration testing

Once all the individual units have been tested there is a need to test how they were put together to ensure no data is lost across interface, one module does not have an adverse impact on another, and a function is not performed correctly.

After unit testing each and every sub module is tested with integrating each other.

System testing for the current system:

In this level of testing we are testing the system as a whole after integrating all the main modules of the project. We are testing whether system is giving correct output or not. All the modules were integrated and the flow of information among different modules was checked. It was also checked that whether the flow of data is as per the requirements or not. It was also checked that whether any particular module is non-functioning or not i.e. once the integration is over each and every module is functioning in its entirety or not.

In this level of testing we tested the following: -

- Whether all the forms are properly working or not.
- Whether all the forms are properly linked or not.
- Whether all the images are properly displayed or not.
- Whether data retrieval is proper or not.

Specific knowledge of the application's code/internal structure and programming knowledge in general is not

required. The tester is aware of *what* the software is supposed to do but is not aware of *how* it does it. For instance, the tester is aware that a particular input returns a certain, invariable output but is not aware of *how* the software produces the output in the first place.

Test Cases

Test cases are built around specifications and requirements, i.e., what the application is supposed to do. Test cases are generally derived from external descriptions of the software, including specifications, requirements and design parameters. Although the tests used are primarily *functional* in nature, *non-functional* tests may also be used. The test designer selects both valid and invalid inputs and determines the correct output without any knowledge of the test object's internal structure.

Test Design Techniques

Typical black-box test design techniques include:

- Decision table testing
- All-pairs testing
- State transition Analysis
- Equivalence partitioning
- Boundary value analysis
- Cause–effect graph
- Error guessing

Advantages

- Efficient when used on large systems.
- Since the tester and developer are independent of each other, testing is balanced and unprejudiced.
- Tester can be non-technical.
- There is no need for the tester to have detailed functional knowledge of system.

- Tests will be done from an end user's point of view, because the end user should accept the system. (This testing technique is sometimes also called Acceptance testing.)
- Testing helps to identify vagueness and contradictions in functional specifications.
- Test cases can be designed as soon as the functional specifications are complete.

Disadvantages

- Test cases are challenging to design without having clear functional specifications.
- It is difficult to identify tricky inputs if the test cases are not developed based on specifications.
- It is difficult to identify all possible inputs in limited testing time. As a result, writing test cases may be slow and difficult.
- There are chances of having unidentified paths during the testing process

Test Case:

1) User Login:

Test Case Id	Test Case Description	Input Steps	Expected Result	Test Case Status
TC 1	To check user enter a wrong username	Open login page enter login name.e.g. User Name=" " Password=" "	Proper message should be displayed as "Sorry, you did not provide a username and password. Please try again.".	Failed
TC 2	To check user enter a wrong username	Open login page enter login name.e.g. User	Proper message should be displayed as "Sorry, the account xyz does not exist in our records.".	Failed

		Name=xyz Password=xyz		
TC 3	To check user enter a wrong username	Open login page enter login name.e.g. User Name="raj" Password="12 3%Computer" .	Display message as "Login Successful".	Passed

2) Advanced Search:

Test Case Id	Test Case Description	Input Steps	Expected Result	Test Case Status
TC 1	To check user left SON, SCN, Host ID, Subscription Number, Asset Tag and Product Group field blank	If SON, SCN, Host ID, Subscription Number, Asset Tag and Product Group is left blank by user and clicks on Search	No records should be displayed.	Failed
TC 2	To check user enter any alphabet in SON field	If SON = '123abc' and click on Search	No records should be displayed.	Failed
TC 3	To check user	If SON =	Licenses should be	Passed

	enter a number in SON field	'1234567' and click on Search	displayed.	
TC 4	To check user enter any alphabet in SCN field	If SCN = '123abc' and click on Search	No records should be displayed.	Failed
TC 5	To check user enter a number in SCN field	If SCN = '1234567' and click on Search	Licenses should be displayed.	Passed
TC 6	To check user enter any alphabet in Host ID field	If Host ID = '123abc' and click on Search	No records should be displayed.	Failed
TC 7	To check user enter a series of 6 two-digit numbers in	If Host ID = '00-02-3F-6C-00-A2' and click on Search	Licenses should be displayed.	Passed

	Host ID field			
TC 8	To check user enter any alphabet in Subscription Number field	If Subscription Number = '123abc' and click on Search	No records should be displayed.	Failed
TC 9	To check user enter a number in Subscription Number field	If Subscription Number = '178F39DA-0D3C-41B7-8F22-2B1C2709C403 and click on Search	Licenses should be displayed.	Passed
TC 10	To check user enter any alphabet in	If Asset Tag = '123abc' and click on Search	No records should be displayed.	Failed

	Asset Tag field			
TC 11	To check user enter a number in Asset Tag field	If Asset Tag = '12345678' and click on Search	Licenses should be displayed.	Passed
TC 12	To check user enter any alphabet in Product Group field	If Product Group = '123abc' and click on Search	No records should be displayed.	Failed
TC 13	To check user enter a number in Product Group field	If Product Group = '1234567' and click on Search	Licenses should be displayed.	Passed

3) Address Management:

Test Case Id	Test Case Description	Input Steps	Expected Result	Test Case Status
TC 1	To check user left Address, City, State, Postal code, Country fields blank	If the user left Address, City, State, Postal code, Country fields blank and click on Create Address	Proper message should be for each field as “Field Name is mandatory”	Failed
TC 2	To check user enter a symbol in Address Field	If Address = “Weikfield@Vimangar 2” and click on Create/Update Address	Proper message should be for each field as “Only Alphanumeric characters are allowed”	Failed

TC 3	To check user enter alphanumeric characters in Address Field	If Address = "Weikfield Vimangar 2" and click on Create/Update Address	Proper message should be displayed "A case has been created to let you track status of your request. Your case number is: 12345678"	Passed
TC 4	To check user enter any digit or symbol in City Field	If City = "Pune@2" and click on Create/Update Address	Proper message should be for each field as "Only Letters are allowed"	Failed
TC 5	To check user enter only letters in City Field	If City = "Pune" and click on Create/Update Address	Proper message should be displayed "A case has been created to let you track status of your request. Your case number is: 12345678"	Passed

TC 6	To check user enter any digit or symbol in State/Province Field	If State/Province = "Maharashtra@2" and click on Create/Update Address	Proper message should be for each field as "Only Letters are allowed"	Failed
TC 7	To check user enter only letters in State/Province Field	If State/Province = "Maharashtra" and click on Create/Update Address	Proper message should be displayed "A case has been created to let you track status of your request. Your case number is: 12345678"	Passed
TC 8	To check user enter any digit or symbol in Country Field	If Country = "India@2" and click on Create/Update Address	Proper message should be for each field as "Only Letters are allowed"	Failed

TC 9	To check user enter only letters in Country Field	If Country = "Maharashtra" and click on Create/Update Address	Proper message should be displayed "A case has been created to let you track status of your request. Your case number is: 12345678"	Passed
------	---	---	---	--------

CHAPTER 4:
USER MANUAL

4.1 USER MANUAL

Getting Started

You will need access to the internet and a web browser like Chrome, Firefox, Internet Explorer 10+, Safari 5.1+, Opera.

User:

Open your web browser and type link provided to User i.e. support.ptc.com

Step 1:

You can register as a new customer.

Step 2:

You can ask for login. For login enter valid user name and password.

Step 3:

After login you can Click on Manage Licenses.

Step 4:

You can perform several License Actions.

Step 5:

You can search a license by various fields.

Step 6:

You can log a case if you are facing certain issue.

Step 7:

You can generate License Report.

Step 8:

You can perform Address Management.

Step 9:

You can perform Contact Management.

Step 10:

You can perform Hardware Management.

Step 11:

You can find a Sales Representative or Reseller.

Step 12:

You can use PTC Licensing Resources for Help.

Step 13:

You can also submit your feedback.

Step 14:

Log out successfully.

4.2 OPERATION MANUAL/MENU EXPLANATION

1) License Actions

a) Advanced Search

- User can search the available and installed license related to the product he purchased, by any one of the below fields:

- Sales Order Number (SON)

- Service Contract Number (SCN)

- Host ID/ Triad

- Subscription Number

- Asset Tag

- Production Group

b) Case Logger

- If the user is having any query related to license management he/she can open a case which will be handled by Business team.

c) License Management Report

- License Management report can be generated consisting all the details of base license and modules in it.

2) Asset Management

a) Address Management

- User can create a new address
- Update the existing address
- Deactivate the address if it no more exists

b) Contact Management

- User can create new contact
- Modify the existing contact
- Inactivate the contact if no more in use

c) Hardware Management

- User can create Host / Triad.
- Update the existing hardware.
- Inactivate the hardware.

3) Resources

a) Find a Sales Representative or Reseller

User can find the sales representative or reseller located near him/her, by providing Site number

b) PTC Licensing Resources

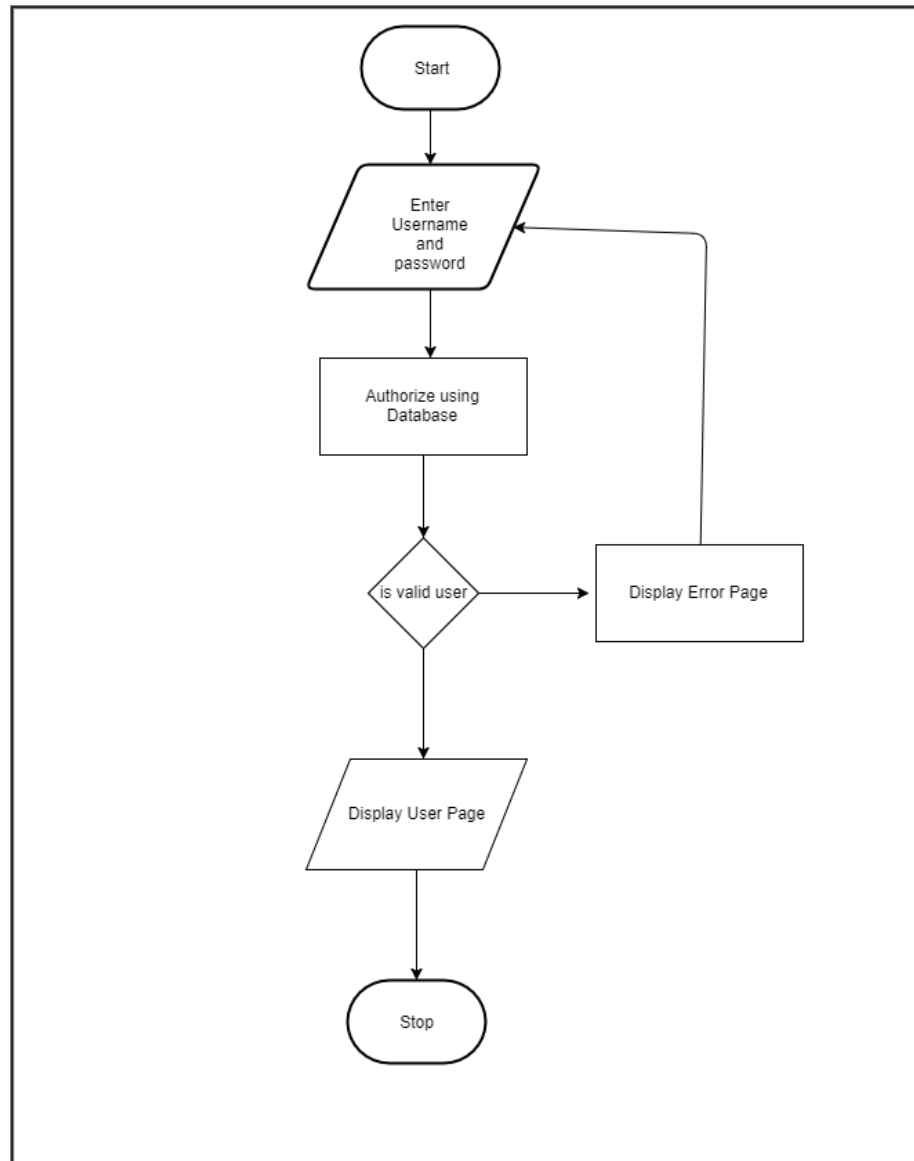
PTC licensing resources such as tutorials, help topics, software downloads, etc. is provided for user guidance and support.

4.3 Program Specifications / Flow Charts:

1. User Authentication (Login)

Module Name		Authentication and Authorization
Program Name		Login to the System
Purpose		Check Authentication for User
Event		Click on “Login” Button
Input	Constraint	Description
Login Details (Emails and password)	The Required field must not be null and input data should be valid.	Login details get checked against database.
Output	The Login details get checked against database to check the authentication of user and user gets notification message of successfully login.	

FLOW CHART



Drawbacks and Limitations

Drawbacks and Limitations

- Whenever a license file is generated the control is handover to JMS (Java Message Services),
so we cannot predict the execution of JMS as they are the asynchronous calls. Hence, we cannot determine the exact time to receive a license file.
It requires at max 10 minutes.
- License portal uses a lot of procedures and function calls to provide different functionality such as generating license reports, so the performance of the system is bit slow.
- Not all products are being licensed through portal, currently products belonging to the product family CoCreate, Flex, Integrity are licensed.

Proposed Enhancement

Proposed Enhancement

- In future we are planning to include other PTC products licensing through the portal.
- License portal also integrates with other services that helps in retrieving licenses of the third party products.
- We are planning to integrate such more services in the portal.

CONCLUSION

CONCLUSION

- This project proved good for me as it provided practical knowledge of not only Spring Framework, but also about all handling procedure related with “**License Management**”.
- It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future.
- The entire project has been developed and deployed as per the requirement stated by the PTC Business Team.
- This will provide better opportunities and guidance in future in developing projects independently.
- Our company is planning to integrate in future and do it as an enhancement.

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BIBLIOGRAPHY

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- Spring 4 for Developing Enterprise Applications

ANNEXURE 1: USER INTERFACE

SCREENS

- **Create a new Customer Account**

Home > PTC.com Accounts > Create New PTC eSupport Account

Create New PTC eSupport Account

New Customer Partner Basic Academic

All fields marked with a * are required.

* First Name:

* Last Name:

* Title:

* E-mail:

* Confirm E-mail:

* Telephone:

* Address:

* City:

State/Province:

Zip/Postal Code:

* Country:

* Preferred Language:

I would like to receive PTC product and services related e-mail: Yes No

* Password:

* Confirm Password:

You must complete this section to create a Customer Account to gain access to all Support entitled areas of PTC.com.

Customer Account: If you, or your company, have purchased a Global Support agreement with PTC, you are entitled to this account level.

Please refer to your PTC Software Order Fulfillment Letter for information necessary to setup your PTC.com customer account, such as your Service Contract Number (SCN).

Please click [here](#) if you need help with registration.

- Home page

The screenshot shows the PTC License Management web application interface. At the top, there is a navigation bar with the PTC logo and user information: "Tools Resources Akshata Gowal". Below this, a breadcrumb trail reads "Home > Support License Management". A secondary navigation bar contains links for "Home License Actions Asset Management Resources Download Software Admin" and a "Welcome, FIC (341)" message.

The main content area is divided into several sections:

- Quick Licensing:** A section titled "Ready to license your products? Enter an order or contract number to get started:" with a search input field and a "Search" button.
- Licenses:** A section titled "If you need to retrieve existing licenses for one Host ID or Trad enter it here:" with an input field and a "Retrieve" button.
- Thingnix / Thingnix Navigator / Windchill:** A section with a notice: "Please note the licensing for Thingnix 8.1, Navigator 1.4 and Windchill 11.1r has been improved. Activation IDs are no longer required to obtain your licenses. You can simply select the product, enter a Device ID and retrieve the license." It includes a "Select a product:" dropdown menu, a "Show Allocation" link, an "Enter Device ID:" input field, and a "Retrieve" button.
- Case Logger:** A section titled "If you need help, contact PTC Licensing Support." with a user icon.
- Case History:** A section titled "View your history of active cases." with a list icon.
- Submit Feedback:** A section titled "Submit your feedback." with a thumbs-up icon.
- License Repository:** A section titled "Download your previously generated files, which are expiring in 1 hour." It lists a file: "341_WINDCHILL_111r1p-2020_01_08_04.glt" with a "Download" button and a timestamp "Mar 31, 2020 1:58:56 AM". Below it is a link "View all recently generated license files".
- Creo Elements Direct:** A section titled "Formerly CoCreate: Click here".

The bottom of the screenshot shows a Windows taskbar with various application icons and a system tray displaying "ENG 3:10 PM 3/31/2020".

- Advance Search :

1) Install License

The screenshot shows a web browser window displaying the PTC License Management Advanced Search page. The browser's address bar shows the URL: support.ptc.com/apps/licensePortal/auth/ss/advsearch. The page features the PTC logo at the top left and navigation links for Tools, Resources, and Akshola Gawari at the top right. Below the logo, the breadcrumb path is Home > Support, followed by the main heading License Management. A secondary navigation bar includes Home, License Actions, Asset Management, Resources, Download Software, Admin, and a user greeting: Welcome, PTC (341). The main content area is titled Advanced Search and contains a search form with the following fields and lookup buttons:

Sales Order Number (SON)	Lookup	Service Contract Number (SCN)	Lookup
Host ID / Triad	Lookup	Subscription Number	Lookup
Asset Tag	Lookup	Product Group	Lookup

At the bottom of the search form are Clear and Search buttons. The footer of the page includes the PTC logo, a list of links (Why PTC, Products, Education, Try & Buy, Leadership, Investor Relations, News, Partners, Blogs, Global Locations), social media icons for Facebook, Twitter, LinkedIn, and YouTube, and a copyright notice: © copyright 2020 PTC. Legal, Policies, Quality Policy. The Windows taskbar at the bottom shows the time as 1:12 PM on 3/31/2020.

User can search by any of the field to get Available/Installed Licenses.

On clicking on Search, you will get the Available and Installed Licenses

List of Available licenses:

The screenshot displays the 'Advanced Search' interface for License Management. The search filters include:

- 3043317 (lookup)
- Host ID / Triad (lookup)
- Asset Tag (lookup)
- Service Contract Number (SCN) (lookup)
- Subscription Number (lookup)
- Product Group (lookup)

Buttons: Clear, Search

Available License

Show 10 entries

	Product	Product Description	Support End Date	SCN	SCN	Subscription Number	Asset Tag
+	PIG-REPWINCA-	Windchill Solutions Rep Package	Jan 22, 2021	3043317	2A134191		
-	SPN-CRES474-	Therigon Navigare Corneate ADU	Jan 22, 2021	3043317	SP220500		

Showing 1 to 2 of 2 entries

Buttons: Install License, Log Case for Upgrade Products, Rev Up, Update Asset Tag

Please note that a product package is considered one item, no matter the serviceable item's product status. Any licensing action will be performed at the product package level and will impact all serviceable items contained in the package.

Clicking on + in available license list you will get sub products.

The screenshot shows a web browser window with the URL `supporttest.ptc.com/apps/licensePortal/auth/ssl/advsearch`. The page is titled "Advanced Search" and contains several search filters:

- 3043317 (lookup)
- Host ID / Trad (lookup)
- Asset Tag (lookup)
- Service Contract Number (SCN) (lookup)
- Subscription Number (lookup)
- Product Group (lookup)

Buttons for "Clear" and "Search" are located below the filters.

Below the filters is the "Available License" section. It shows a search bar and a "Show 10 entries" dropdown. The main table lists licenses and their sub-products:

Product	Product Description	Support End Date	SCN	SCN	Subscription Number	Asset Tag
PG-REPWINCA	Winpath Solutions Rep Package	Jan 22, 2021	3043317	24134191		
SPWCPRE431A	ThingWorx Navigate Composite ADU	Jan 22, 2021	3043317	09220080		

The "Available License" section also includes a detailed table for the selected license (SPWCPRE431A):

Serviceable Item	Item Description	Product Status	Available / Ordered Quantity	Feature Name	Revision	Type	SCN
TWACPRE431A	ThingWorx Navigate Composite ADU	Not installed	100 / 100		APP6	FLOATING	09220080
WPCPRE431A	Winpath for ThingWorx Navigate Composite ADU	Not installed	100 / 100		11.1	FLOATING	09220080
TWFFPRE431A	ThingWorx Foundation Composite ADU	Not installed	100 / 100		8.5	FLOATING	09220080
TRP4724A	Customizable Integrity Monitoring Library	Not installed	1000 / 1000		000	FLOATING	09220080
TRP4475A	Standard Winpath Monitoring Library	Not installed	1000 / 1000		000	FLOATING	09220080
MG41200A	Integrity Lifecycle Manager Registered User	Not installed	100 / 100	MGSoundIntegritySecrMKBIntegrityManagerSecr	12.3	FLOATING	09220080

At the bottom of the license list, there are buttons for "Install License", "Log Code for Upgrade Products", "Rev Up", and "Update Asset Tag". The system tray at the bottom right shows the date and time: 2:28 PM 3/31/2020.

On selecting the product and clicking on install License button

The screenshot shows the PTC License Management web application. The browser address bar displays `supporttest.ptc.com/apps/licensePortal/auth/ss/advsearch`. The page header includes the PTC logo and navigation links for Tools, Resources, and Akshata Gowari. A breadcrumb trail shows `Home > Support`. The main heading is `License Management`. A secondary navigation bar contains `Home License Actions Asset Management Resources Download Software Admin` and a user greeting `Welcome, PTC (341)`.

The `Advanced Search` section features a form with the following fields and lookup buttons:

- 3043317 (lookup)
- Host ID / Triad (lookup)
- Asset Tag (lookup)
- Service Contract Number (SCN) (lookup)
- Subscription Number (lookup)
- Product Group (lookup)

Buttons for `Clear` and `Search` are located below the search fields.

The `Available License` section displays a table with the following data:

	Product	Product Description	Support End Date	SCN	SCN	Subscription Number	Asset Tag
<input type="checkbox"/>	PKG-PEPWINCA	Winsoft Solutions Rep Footage	Jan 22, 2021	3043317	24154191		
<input checked="" type="checkbox"/>	SPH-CPE5431A	ThingWorx Navigate Composite ADU	Jan 22, 2021	3043317	092281680		

Below the table, it indicates `Showing 1 to 2 of 2 entries` with `Previous` and `Next` navigation options. Action buttons include `Install License`, `Log Case for Upgrade Products`, `Rev Up`, and `Update Asset Tag`.

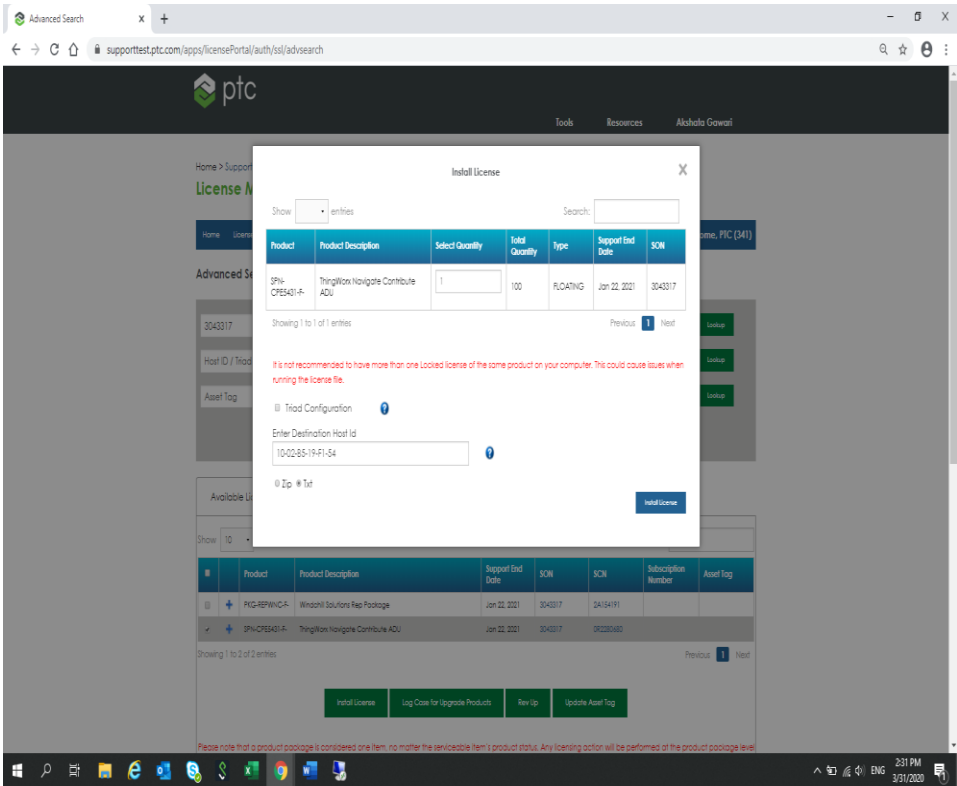
A red note at the bottom states: `Please note that a product package is considered one item, no matter the serviceable item's product status. Any licensing action will be performed at the product package level and will impact all serviceable items contained in the package.`

The Windows taskbar at the bottom shows the time as `2:28 PM` on `3/21/2020`.

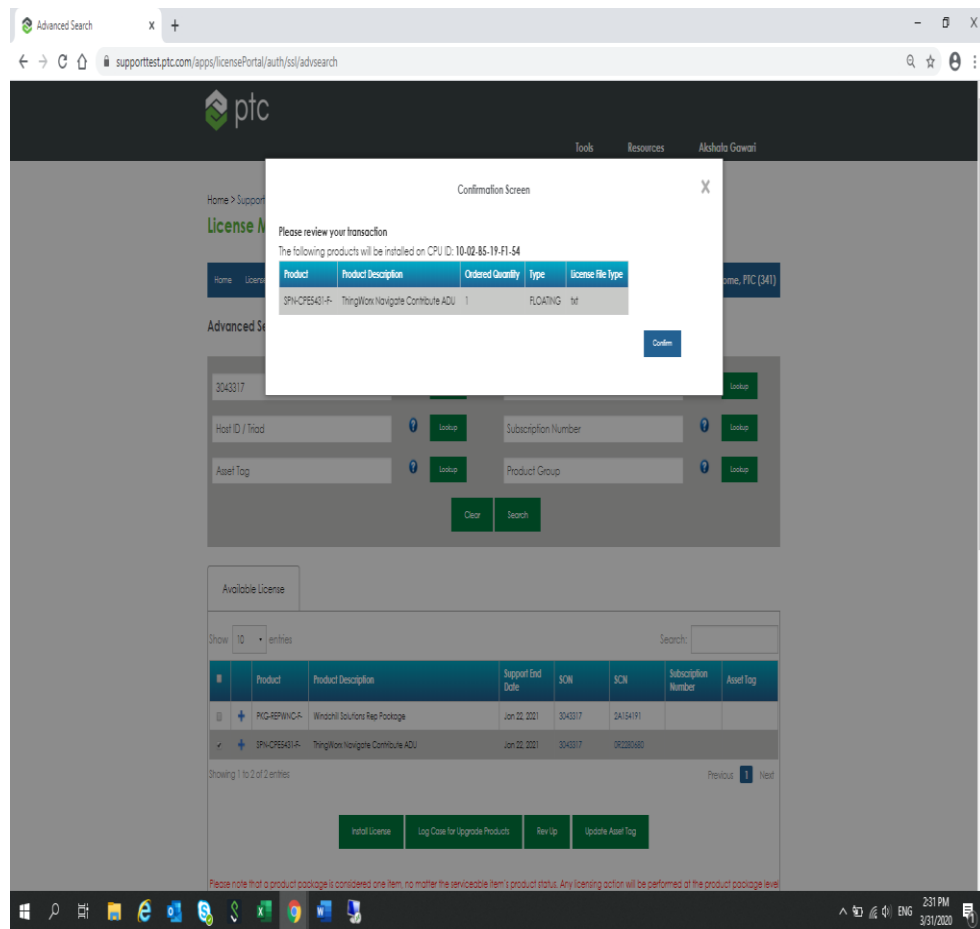
A popup occurs –

Enter quantity less than total quantity.

Provide Host Id to install license on and select Zip or text radio button (in which type you want license File).



After clicking on install License confirmation box appears.



We will get one message at the top of case creation of successful transaction with case number:

The screenshot shows the PTC License Management web application interface. At the top, there is a navigation bar with the PTC logo and user information: "Tools Resources Akshata Gowai". Below this, a breadcrumb trail reads "Home > Support License Management". A blue navigation bar contains "Home License Actions Asset Management Resources Download Software Admin" and a welcome message "Welcome, PTC [341]".

The main section is titled "Advanced Search" and features a green notification box: "A case has been created to let you track the status of your request. Your case number is 5326333". Below this is a search form with fields for "3043317", "Host ID / Triad", "Asset Tag", "Service Contract Number (SCN)", "Subscription Number", and "Product Group". Each field has a "Lookup" button. "Clear" and "Search" buttons are at the bottom of the form.

Below the search form are two tabs: "Available License" (selected) and "Installed License". The "Available License" tab shows a table with columns: Product, Product Description, Support End Date, SON, SON, Subscription Number, and Asset Tag. The table contains two entries:

Product	Product Description	Support End Date	SON	SON	Subscription Number	Asset Tag
PKG-REPWINCA	Windchill Solutions Rep Postage	Jan 02, 2021	3043317	DA184191		
SPH-CPE5431-R	Thingillon Navigare Corribus ADU	Jan 02, 2021	3043317	DR228360		

At the bottom of the table, it says "Showing 1 to 2 of 2 entries" and "Previous 1 Next". Below the table are buttons for "Install License", "Log Case for Upgrade Products", "Rev Up", and "Update Asset Tag". The Windows taskbar at the bottom shows the time as 2:31 PM on 3/31/2020.

You can verify the changes:

In Available License tab

The screenshot shows the PTC License Management web application. At the top, there is a navigation bar with the PTC logo and links for Tools, Resources, and Akshata Gowri. Below this, the page title is "License Management" and the user is logged in as "Welcome, PIC (341)".

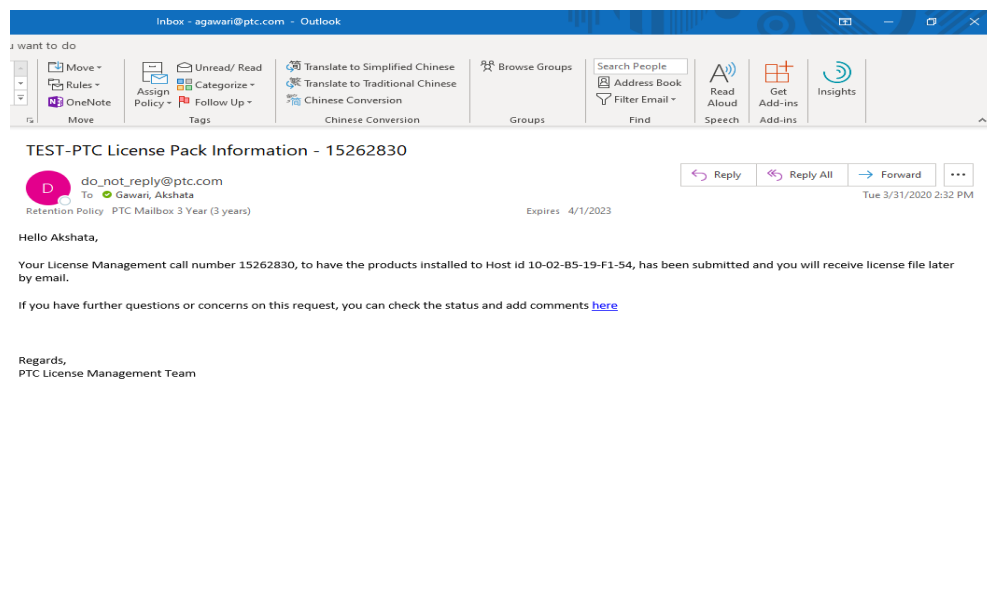
The "Advanced Search" section contains several input fields with "Lookup" buttons: 3043317, Host ID / Triad, Asset Tag, Service Contract Number (SCN), Subscription Number, and Product Group. There are "Clear" and "Search" buttons at the bottom of this section. A tooltip on the right states: "All subscription products in the Installed Base will now have a subscription number associated with them. Subscription product will begin getting assigned to new SCN number."

The "Available License" tab is active, showing a table with the following data:

#	Product	Product Description	Host ID / Triad	Support End Date	SCN	SCN	Subscription Number	Asset Tag	Retrieve License
1	3PWCPE8431-FZ	ThingWorx Navigate Composite ADU	1040286-18-F1-64	Jan 22, 2021	3043317	09228060			Retrieve License

Below the table, there are buttons for "Move License", "Deinstall Licenses", "Update Asset Tag", "Manage Temporary Locked Licenses", and "Rev Up". A note at the bottom states: "Please note that a product package is considered one item, no matter the serviceable item's product status. Any licensing action will be performed at the product package level and will impact all serviceable items contained in the package."

License mail:



The screenshot shows an Outlook window titled "Inbox - agawari@ptc.com - Outlook". The ribbon includes "Move", "Tags", "Chinese Conversion", "Groups", "Find", "Speech", and "Add-ins". The email content is as follows:

TEST-PTC License Pack Information - 15262830

do_not_reply@ptc.com
To: Gewari, Akshata
Retention Policy: PTC Mailbox 3 Year (3 years) Expires: 4/1/2023

Reply Reply All Forward

Tue 3/31/2020 3:32 PM

Hello Akshata,

Your License Management call number 15262830, to have the products installed to Host id 10-02-B5-19-F1-54, has been submitted and you will receive license file later by email.

If you have further questions or concerns on this request, you can check the status and add comments [here](#)

Regards,
PTC License Management Team

License File Contents:

```
#-----
#License Pack for Request ID 1726568      31-Mar-2020
#This License pack was requested by: PTC Host ID 10-02-B5-
19-F1-54
#-----
```

```
#          PTC License Pack
#          IMPORTANT SOFTWARE LICENSING INFORMATION
#          Retain this for your records.
```

```
#Customer      :PTC
#Site          :PTC
#              :
#              :140 KENDRICK STREET
#              :
#              :NEEDHAM, MA 02494
#              :US
#              :,
```

```
#Contact       :SANNY FANG
#Email         :SFANG@PTC.COM
```

```
#Customer Number :341
#Install Site No :234366
```

```
***** Summary Table
*****
#          PTC Host ID 10-02-B5-19-F1-54
#FeatureName      Qty      Product
Release Type      Expiration  Contract
*****
#259              1        Arbortext IsoDraw 3D
Extensions        7.3      Ext      16-oct-2021 2A154191
#260              1        Arbortext IsoCompose
7.3      Ext      16-oct-2021 2A154191
#0                1        NOTEBOOK
Creo 7.0 Ext      16-oct-2021 2A154191
#-----
```

```
#START: License File for HOST ID 10-02-B5-19-F1-54
#-----
```

```
SERVER __HOSTNAME__ PTC_HOSTID=10-02-B5-19-F1-54 7788
DAEMON ptc_d __PTCD_PATH__
##### Extension #####
# Serviceable = Arbortext IsoDraw Rep Options
# Feature Name = 259
# Feature Version = 7.3
```

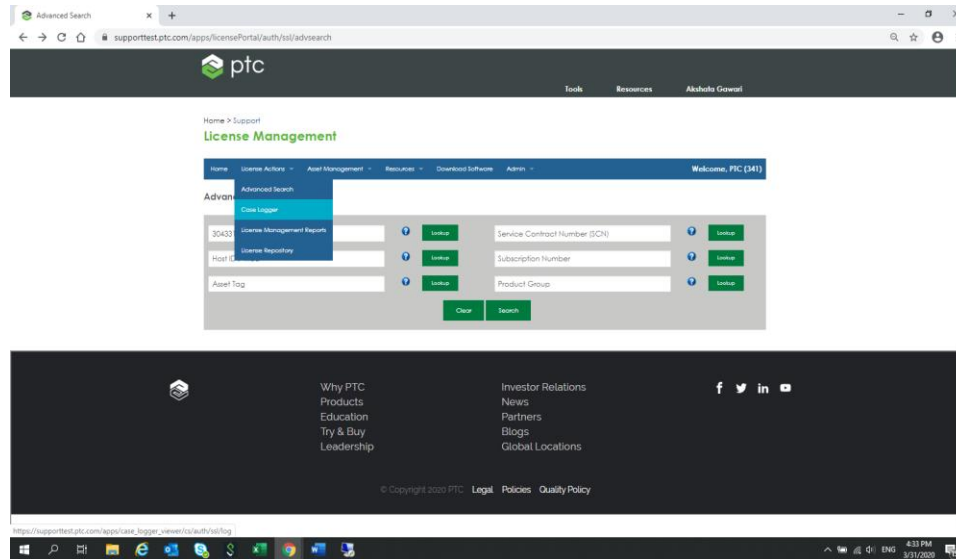
```
# Number of Copies = 1
# Expiration Date = 16-oct-2021
# Module = Arbortext IsoDraw 3D Extensions
INCREMENT 259 ptc_d 7.3 16-oct-2021 1 D030A040C6DB1C8C2AB0
\
  VENDOR_STRING="VSVER=2.0 STARTUP LO=( ) BORROW" \
  SUPERSEDE ISSUER=PTC ISSUED=31-mar-2020 BORROW=4320 \
  NOTICE="PTC, 234366" SIGN2="0498 CE53 54CD 995C C43B
\
  418E 4418 4946 ABBF B148 8DF7 8B46 DFC3 CEF5 709E \
  141A CE5C 28B9 38E1 390F 3031 64CE 4228 921A 9F6C \
  0877 6DB7 72E3 92A2 D6FE"
#END: License File for HOST ID 10-02-B5-19-F1-54

#-----
#-----

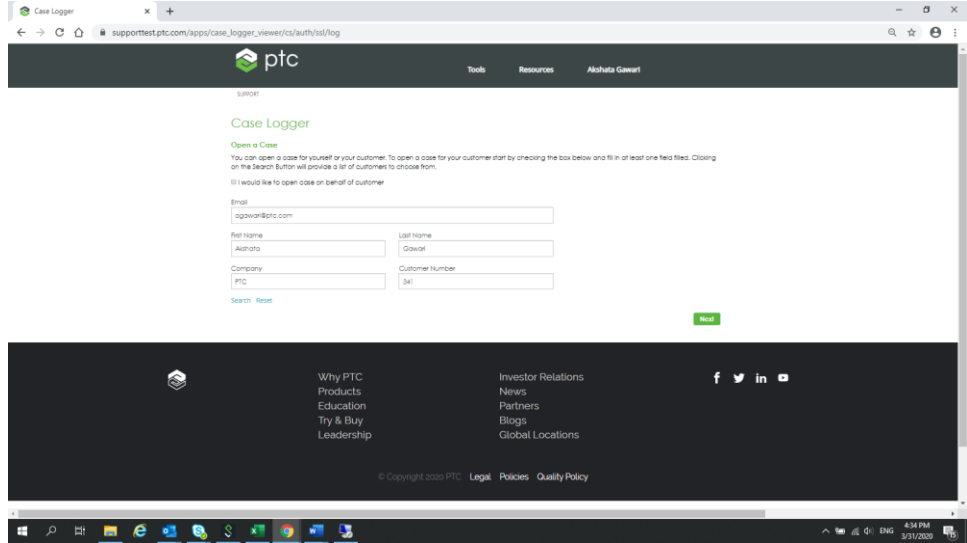
#-----
#-----
#END OF THE LICENSE PACK FOR REQUEST ID 1726568
#-----
#-----
```

2. Case logger

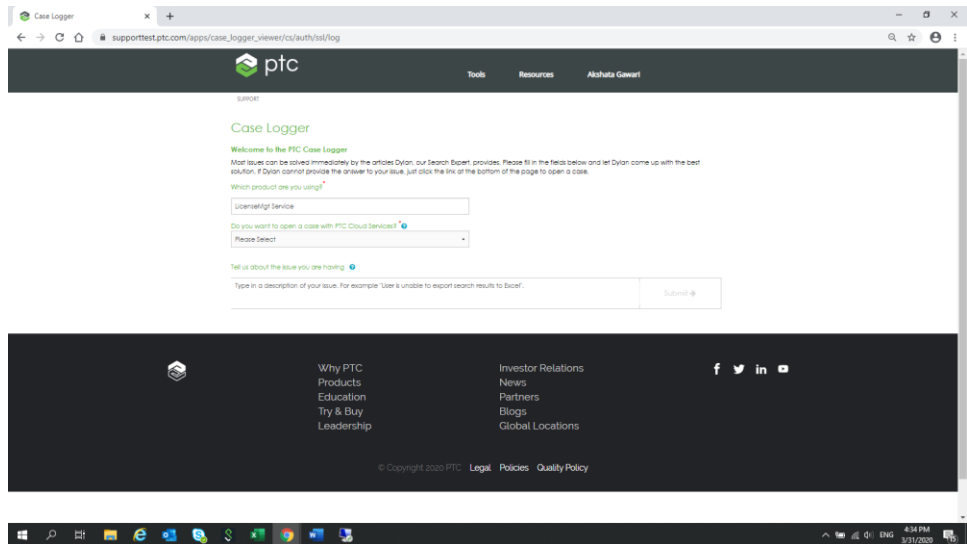
Click License Actions > Case Logger

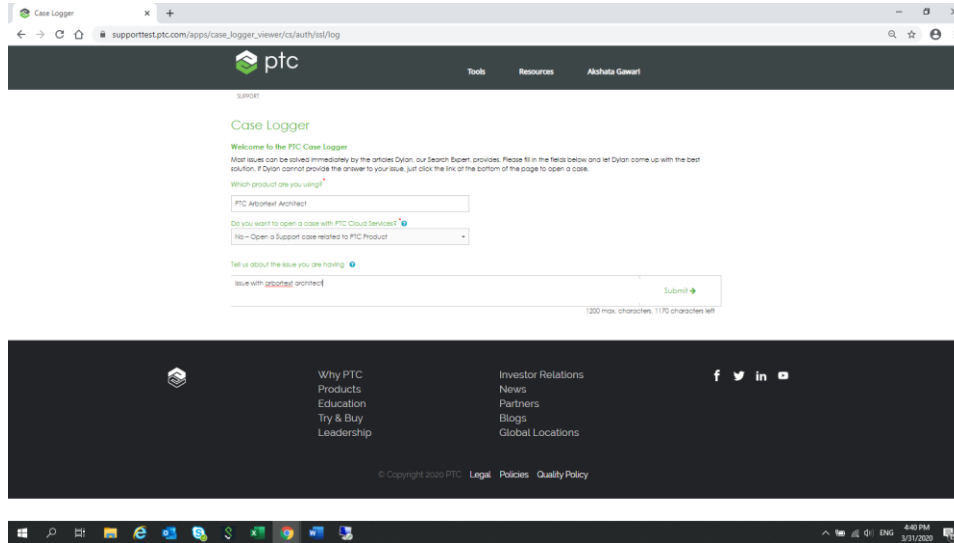


A form is displayed, fill user details.



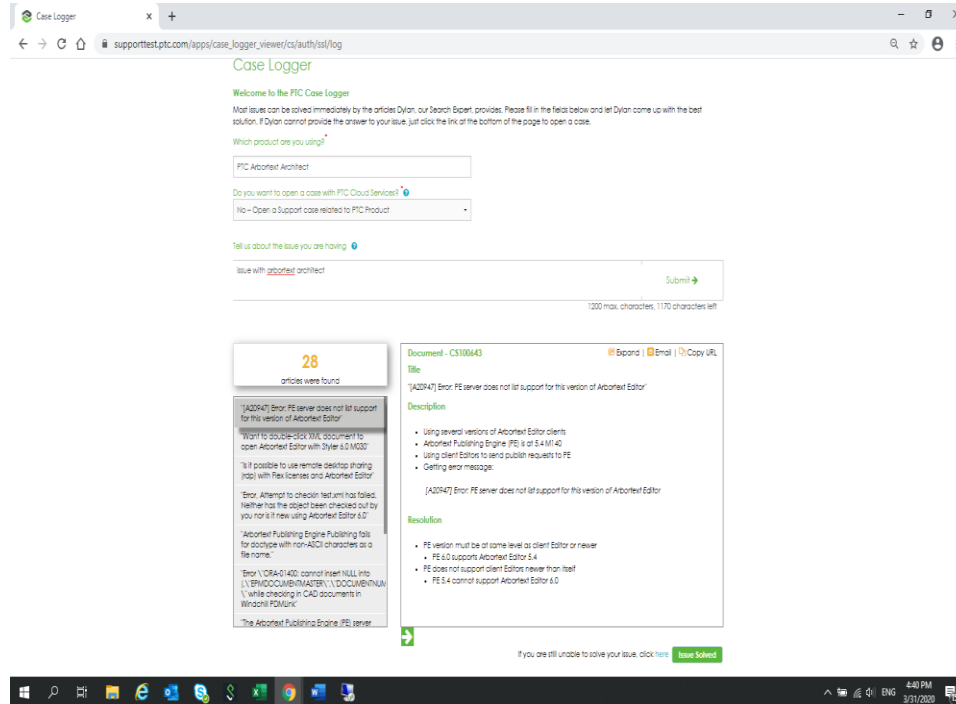
On clicking next.





Articles are displayed related to your issue.

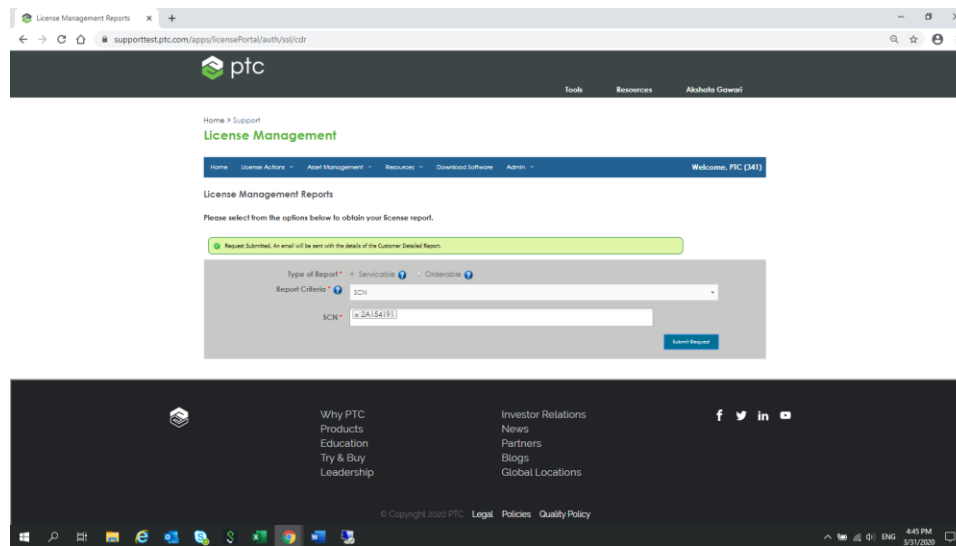
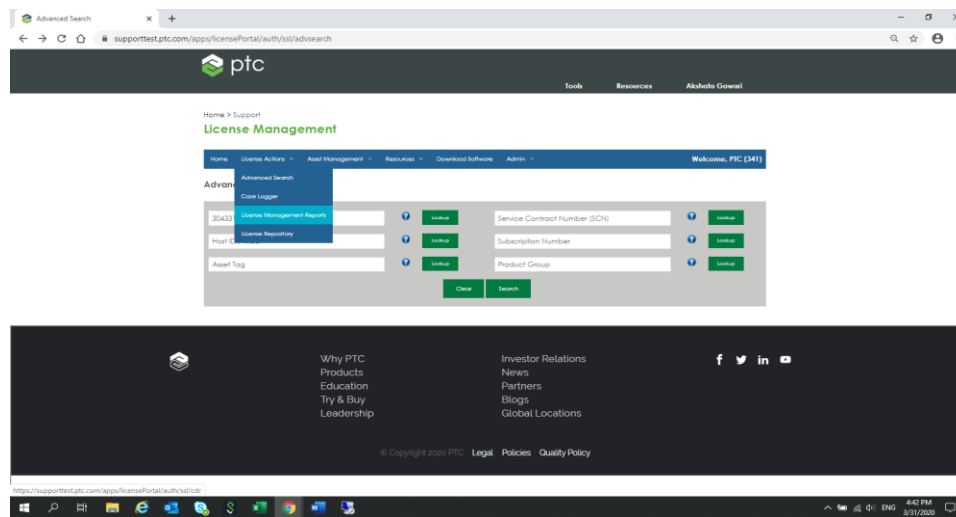
You can either click on Issue Solved or a link named ‘[here](#)’ if your issue is not solved.



3. License Management Reports

Click License Actions > License Management Reports

Select Type: Serviceable / Orderable and Criteria: Entire Customer / SCN > Click Submit



Will get mail which include following report:

AutoSave 341_158563545926 - Protected View - Excel Aishata Govari

File Home Insert Page Layout Formulas Data Review View Help Search Share Comments

PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View. Enable Editing

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1			Useful for new installation			Maintenance renewal useful information																Useful when updating addresses
2	CUSTOMER	CUSTOMER SALES ORDER #	HOST ID	HOST NAME	ORDERED	SVC ITEM	ITEM DESK	REV	QTY	REFERENCE U/F	STATUS	PRODUCT	SERVICE C	CONTRACT	CONTRACT SITE	ADDR1	ADDR2	ADDR3	ADDR4			
3	341	PTC 901038			PKG-4002-F	Education ENG-4002	Education 440		1	1106681	F	Not Instal	Time-Rest 2A1S4191	ACTIVE	31-Dec-20							
4	341	PTC 901038	00-10-83-00-10-83-C	PKG-4004-F	Education ENG-4004	Education 440		1	1106701	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	2355066	PTC			144D WEST CO			
5	341	PTC 1128248			CCS-CV900-F	CADDS 5 L CCS-CV99	CADDS UN 160		1	1512316	F	Expired	ULF / Com 2A1S4191	EXPIRED	31-Dec-2010							
6	341	PTC 11318635			PKG-3186-FX	I-DEAS to ENG-3187	Creo Four 440		1	1729774	F	Not Instal	Time-Rest 2A1S4191	ACTIVE	02-Jan-2050							
7	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2127-F	Windchill WNC-2127	Windchill 112		1	2527484	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
8	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2150-F	Windchill WNC-2150	Windchill 112		1	2527485	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
9	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2128-F	Windchill WNE-2128	Workgrou 112		1	2527486	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
10	341	PTC 2006247	B8-CA-3A	B8-CA-3A	WNC-2132-F	Windchill WNE-2132	Workgrou 112		1	2527487	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	2355066	PTC			144D WEST CO		
11	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2133-F	Windchill WNE-2133	Workgrou 112		1	2527488	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
12	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2140-F	Windchill WNC-2140	Workgrou 112		1	2527489	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
13	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2131-F	Windchill WNC-2131	Windchill 112		1	2527490	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
14	341	PTC 2006247	MNTREL-2	MNTREL-2	WDP-CP55013-F	Windchill WNA-2111	Windchill 112		1	2527493	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
15	341	PTC 2006247	MNTREL-2	MNTREL-2	WEC-CP001-F	Windchill WEC-CP00	Windchill 112		1	2527494	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
16	341	PTC 2006247	MNTREL-2	MNTREL-2	WEC-CP009-F	PartsLink WEC-CP00	PTC Parts 112		1	2527495	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
17	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2340-F	Windchill WNA-2340	Windchill 112		1	2527496	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
18	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2348-F	Windchill WNA-2348	Windchill 112		1	2527497	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
19	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2341-F	Windchill WNA-2341	Windchill 112		1	2527498	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
20	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2346-F	Windchill WNA-2346	Windchill 112		1	2527499	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
21	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2342-F	Windchill WNA-2342	Windchill 112		1	2527500	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
22	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2352-F	Windchill WNA-2352	Windchill 112		1	2527501	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
23	341	PTC 2006247	MNTREL-2	MNTREL-2	WNA-2376-F	Windchill WNA-2376	BaanERP 112		1	2527502	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
24	341	PTC 2006247	MNTREL-2	MNTREL-2	WNC-2142-F	Windchill WNE-2142	Windchill 112		1	2527504	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366	PTC			140 KENDRICH		
25	341	PTC 1282275	00-02-3F	400-02-3F	PKG-3963-F	Creo e[EN ENG-3963	e[ENGINE 440		1	2846740	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	3540461	PTC			ACADEMIC TEA 121 SEAPORT		
26	341	PTC 1282275	00-04-76	1MWENDLPTN-3144-F	Creo Mod ENG-3144	ModelCH 440		1	2846747	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	121648	PTC			2930 EAST SU			
27	341	PTC 1294504	00-1C-23	100-1C-23	DVP-2392-F	DIVISION DVP-2392	DIVISION 360		1	2897650	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	2355066	PTC			144D WEST CO		
28	341	PTC 1294504	4C-00-10	14C-00-10	DVP-2361-F	DIVISION DVP-2361	Mentor G 360		1	2898231	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	2140093	PARAMET (INDIA)			PIEMBASSY VIT		
29	341	PTC 1294504	00-1C-23	100-1C-23	DVP-2383-F	DIVISION DVP-2383	DIVISION 360		1	2920335	F	Installed	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	2355066	PTC			144D WEST CO		
30	341	PTC 1294504			DVP-2387-F	Productiv DVP-2387	DIVISION 360		53	2920336	F	Not Instal	Time-Rest 2A1S4191	ACTIVE	31-Dec-20	234366						
31	341	PTC 2189373	00-A0-C9	00-A0-C9	PKG-8101-F	Services V SWB-8100	Services V020		1	2960998	F	Installed	Perpetual 2A1S4191	EXPIRED	08-Apr-20	234366	PTC			140 KENDRICH		
32	341	PTC 2189373	00-A0-C9	00-A0-C9	PKG-8101-F	Services V SWB-8101	Services V020		1	2961003	F	Installed	Perpetual 2A1S4191	EXPIRED	08-Apr-20	234366	PTC			140 KENDRICH		

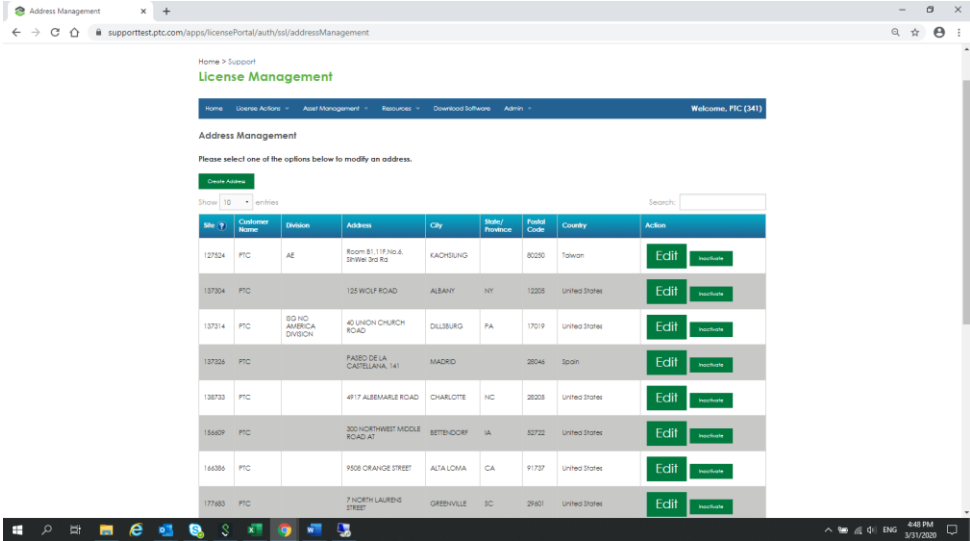
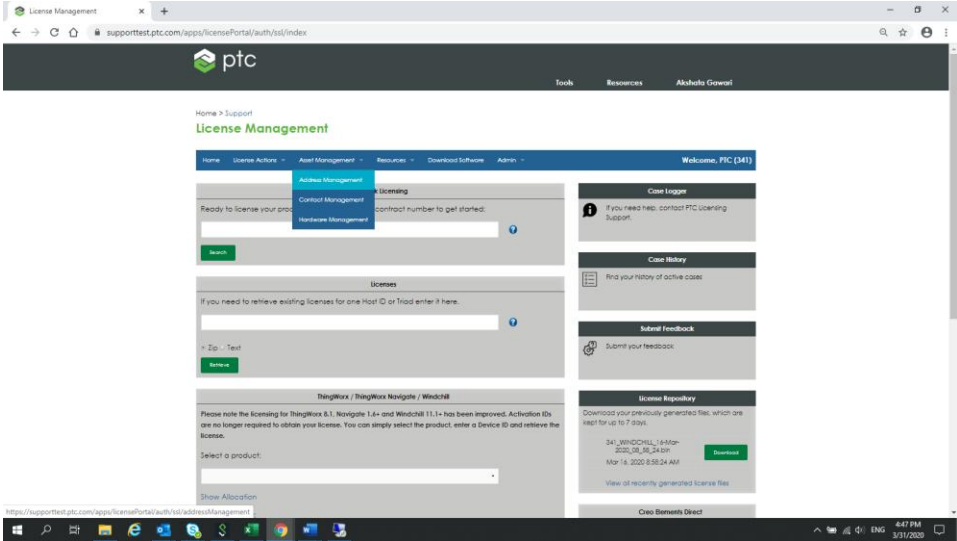
contract_number

Ready

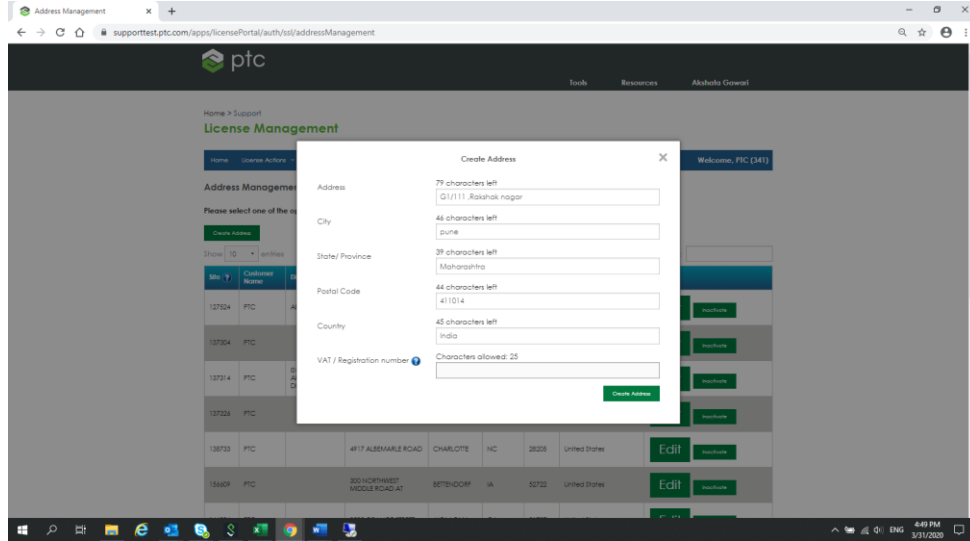
4:54 PM 3/31/2020

4. Address Management

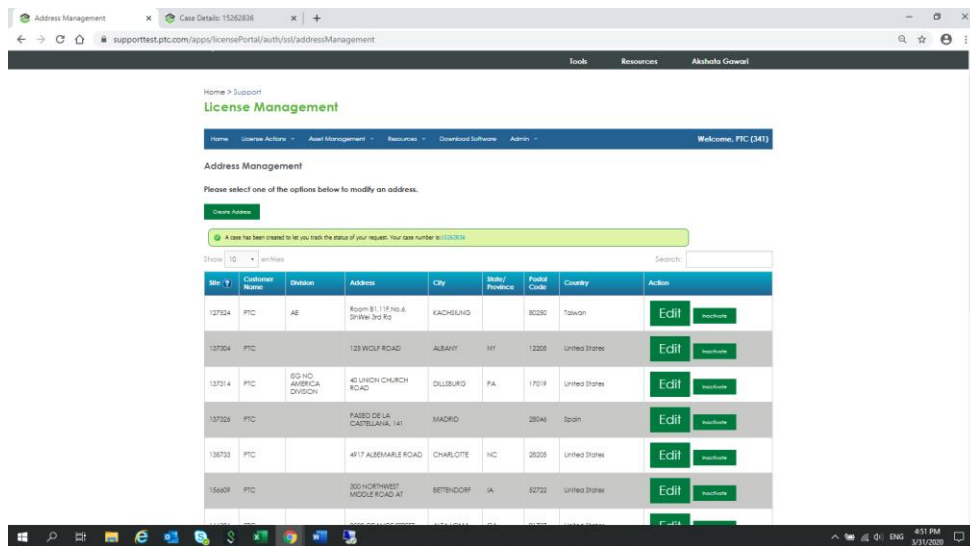
Select Asset Management > Address Management



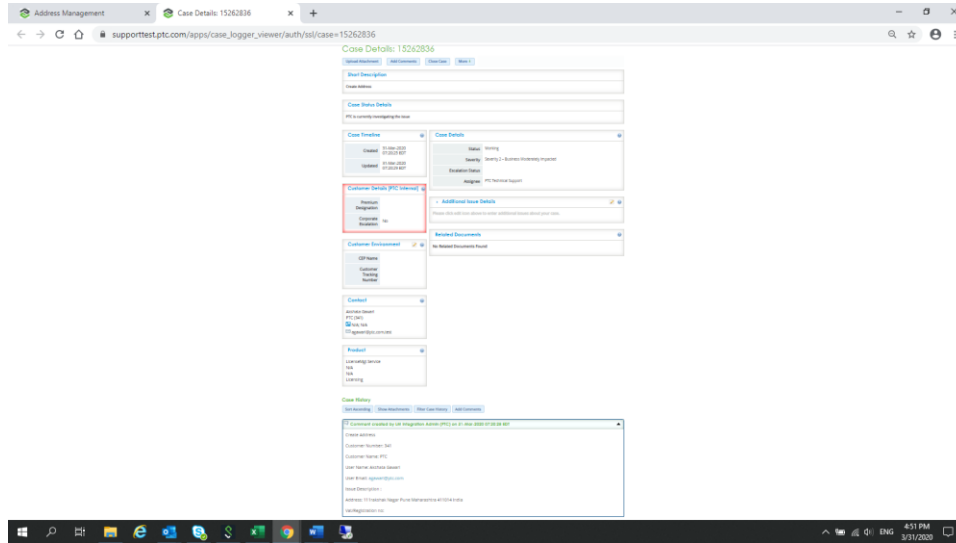
Create new Address:



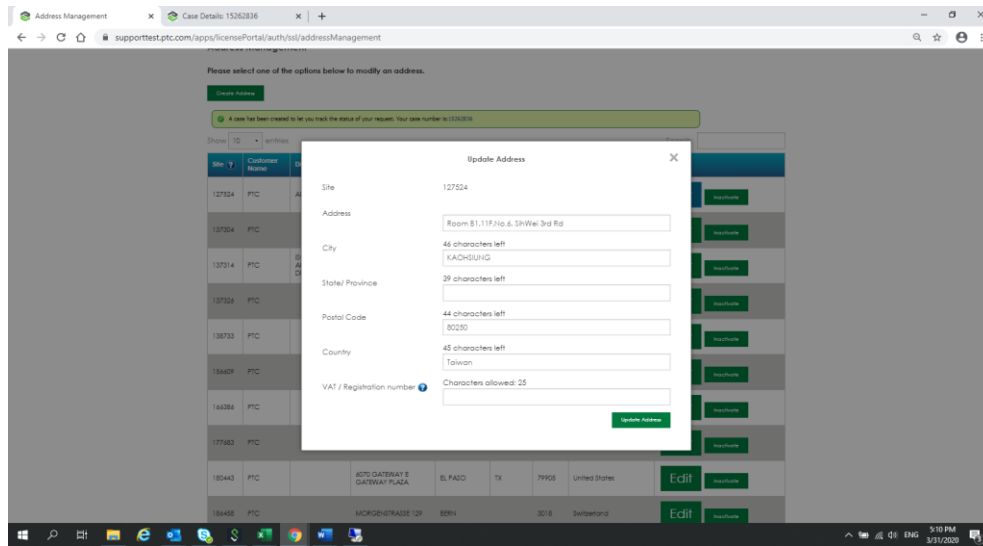
Successfully created address:



Successful case includes updated data as follows:



We can edit Address using EDIT button:



After editing address click on “update address” button to update it and then again it will create success case with some case number.

Inactivate Address

Address Management

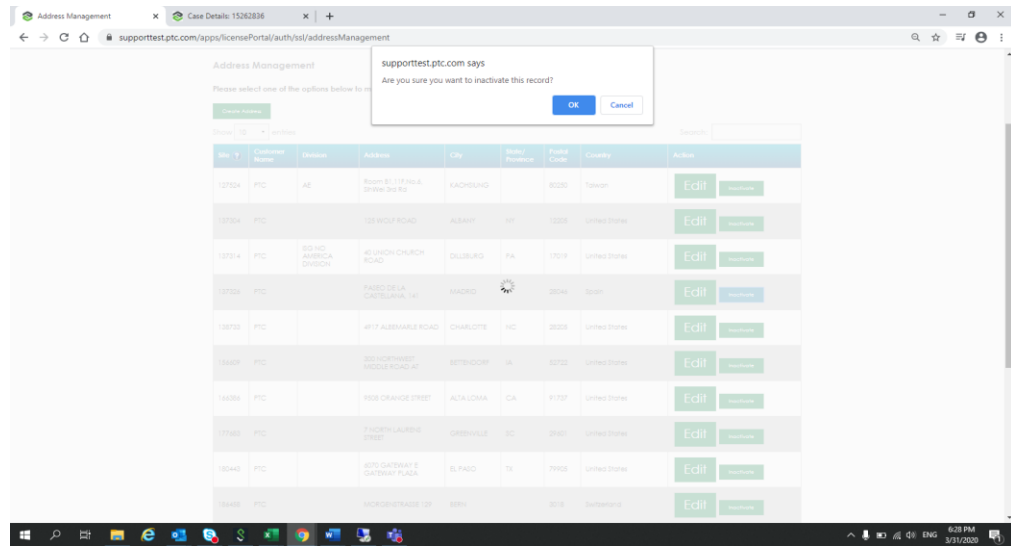
Please select one of the options below to modify an address.

Create Address

Show 10 entries

Site ID	Customer Name	Division	Address	City	State/Province	Postal Code	Country	Action
127524	PTC	AE	Room B1.11F No.6, ShiWei 3rd Rd	KACHUNG		80250	Taiwan	Edit Inactivate
137304	PTC		125 WOLF ROAD	ALBANY	NY	12205	United States	Edit Inactivate
137314	PTC	SG NO AMERICA DIVISION	40 UNION CHURCH ROAD	DILLSBURG	PA	17019	United States	Edit Inactivate
137326	PTC		FASEO DE LA CASTELLANA, 141	MADRID		28046	Spain	Edit Inactivate
138733	PTC		4917 ALBERMARLE ROAD	CHARLOTTE	NC	28225	United States	Edit Inactivate
156609	PTC		321 NORTHWEST MIDDLE ROAD AT	BETHESDORF	IA	52722	United States	Edit Inactivate
166386	PTC		9508 ORANGE STREET	ALTA LOMA	CA	91737	United States	Edit Inactivate
177683	PTC		7 NORTH LAURING STREET	GREENVILLE	SC	29601	United States	Edit Inactivate
180443	PTC		4070 GATEWAY E GATEWAY PLAZA	EL PASO	TX	79905	United States	Edit Inactivate
186468	PTC		MICROB-UTRASZE 129	BERN		3018	Switzerland	Edit Inactivate

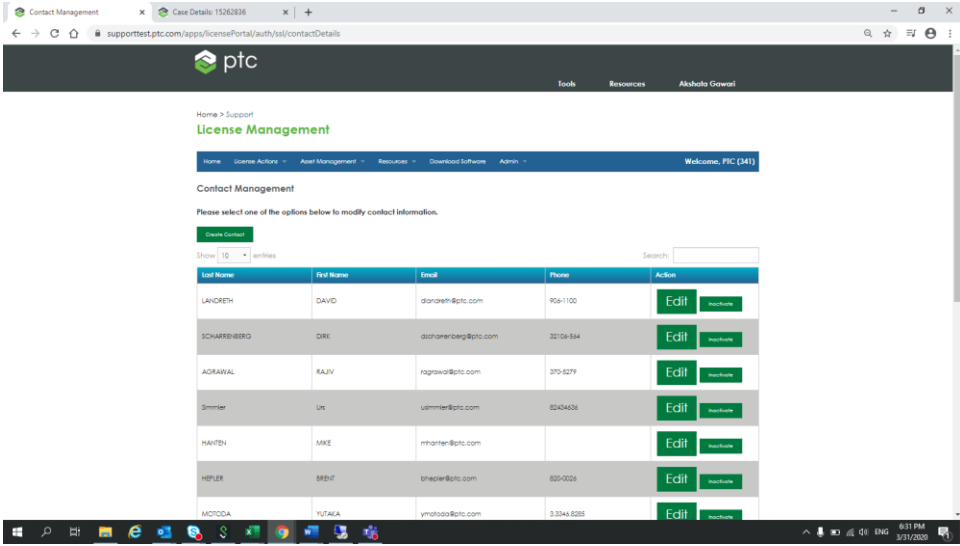
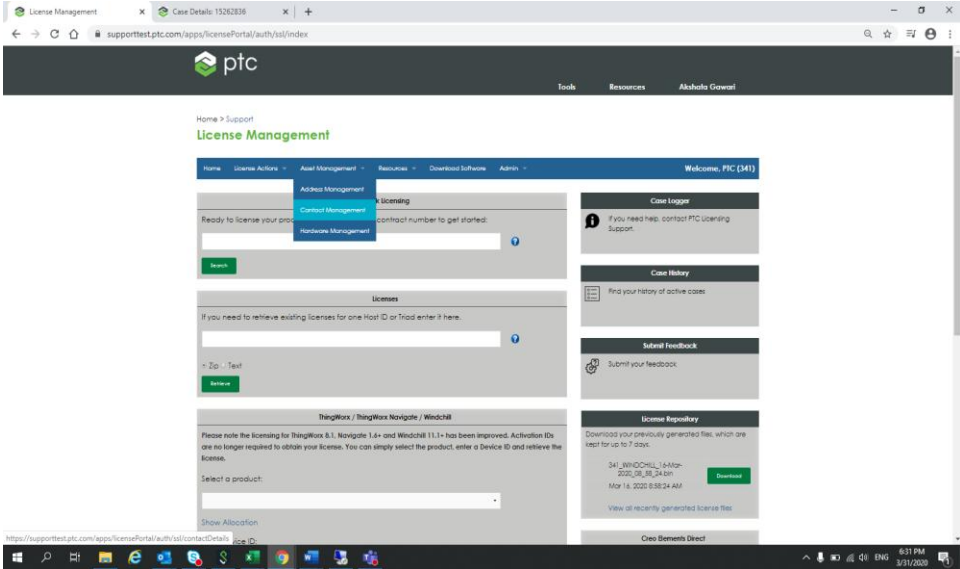
Click on Inactivate, a confirmation box appears.



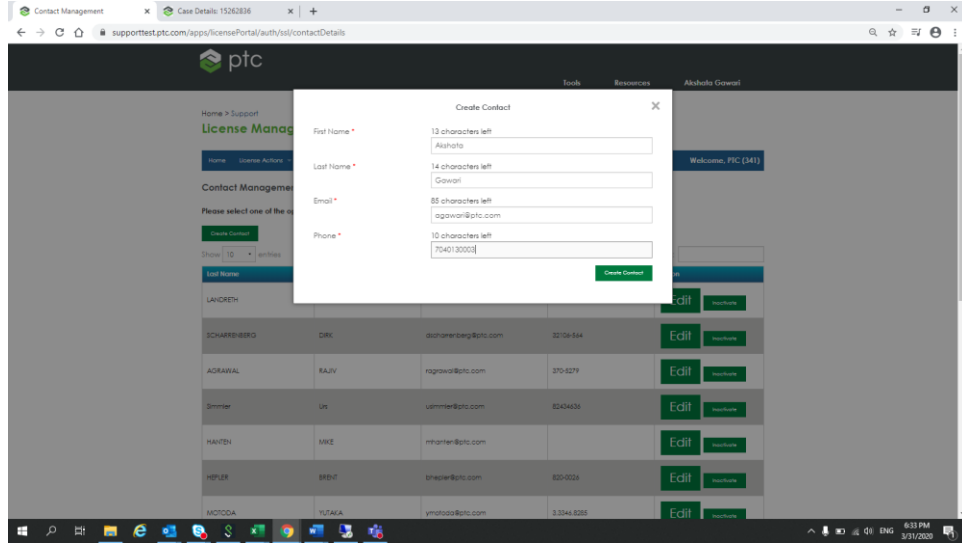
On clicking ok it will again create case and address will get inactivated.

5. Contact Management

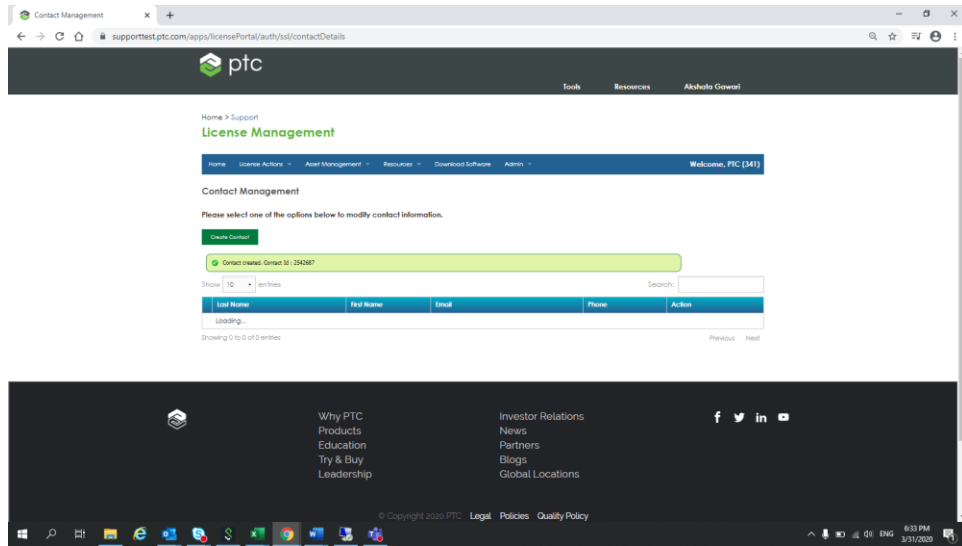
Select Asset Management > Contact Management



Create new contact:



This shows message that contact is created.



Update/Edit contact:

Contact Management x +

supporttest.ptc.com/apps/licenseportal/auth/ssl/contactDetails

Home License Admin Asset Management Resources Download Software Admin Welcome, PTC [M1]

Contact Management

Please select one of the options

Create Contact

Contact created. Contact ID: [ID]

Show 10 entries

Last Name	First Name	Email	Phone	Actions
LAGHMIKAR/HA				Edit Inactivate
WAK/STEN				Edit Inactivate
LAGHMIKAR/AYAN				Edit Inactivate
Gowari	Alphata	agowari@ptc.com	7040130003	Edit Inactivate

Showing 1 to 4 of 4 entries (Filtered from 2,522 total entries) Previous 1 Next

Update Contact

First Name * Alphata

Last Name * Gowari

Email * agowari@ptc.com

Phone * 7040130003

Update Contact

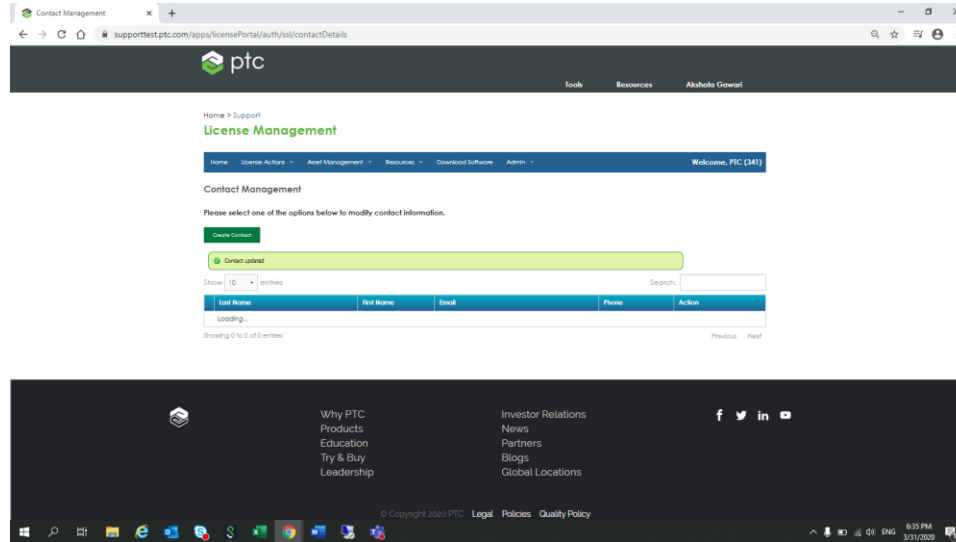
Why PTC
Products
Education
Try & Buy
Leadership

Investor Relations
News
Partners
Blogs
Global Locations

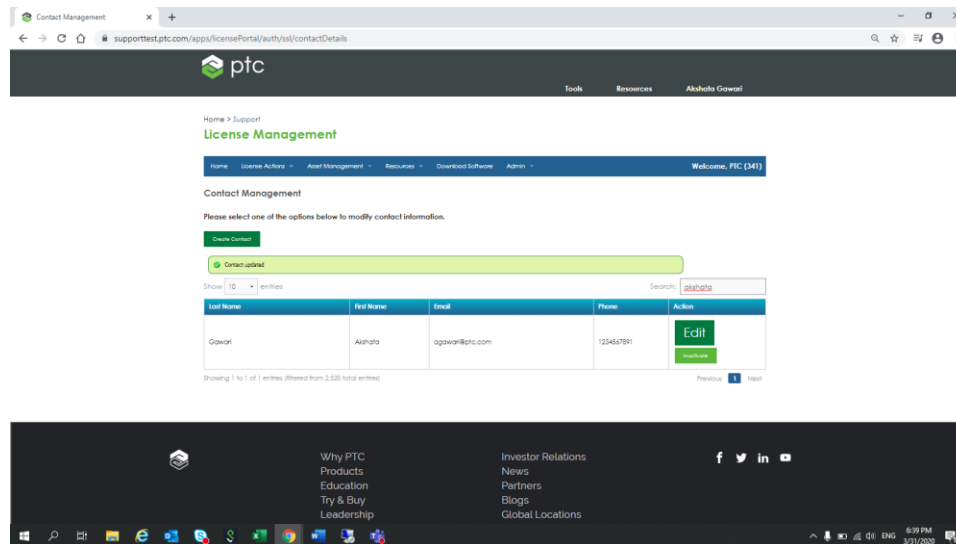
f t in v

6:34 PM
3/31/2020

This screen shows that contact is updated with successful message.



Inactivate Contact:



supporttest.ptc.com/apps/licensePortal/auth/ssl/contactDetails

ptc

supporttest.ptc.com says
Are you sure you want to inactivate this record?

OK Cancel

Home > Support
License Management

Home License Activity Asset Management Resources Download Software Admin Welcome, PTC (M1)

Contact Management

Please select one of the options below to modify contact information.

Close Contact

Green carded

Show 10 entries Search:

Last Name	First Name	Email	Phone	Action
Green	carded	agpaw@ptc.com	123456789	Edit

Showing 1 of 1 entries (Sorted from 2020-03-03 entries)

Previous Next

Why PTC
Products
Education
Try & Buy
Leadership

Investor Relations
News
Partners
Blogs
Global Locations

f t in

6:39 PM 3/31/2020

supporttest.ptc.com/apps/licensePortal/auth/ssl/contactDetails

ptc

Tools Resources Akshita Goyal

Home > Support
License Management

Home License Activity Asset Management Resources Download Software Admin Welcome, PTC (M1)

Contact Management

Please select one of the options below to modify contact information.

Close Contact

Contract carded

Show 10 entries Search:

Last Name	First Name	Email	Phone	Action
Loading...				

Showing 0 to 0 of 0 entries

Previous Next

Why PTC
Products
Education
Try & Buy
Leadership

Investor Relations
News
Partners
Blogs
Global Locations

f t in

© Copyright 2020 PTC. Legal Policies Quality Policy

6:39 PM 3/31/2020

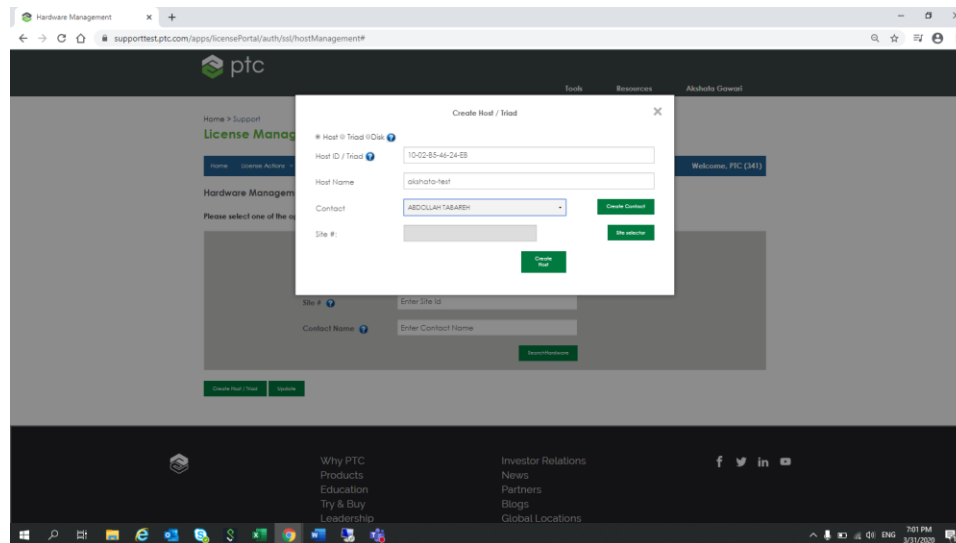
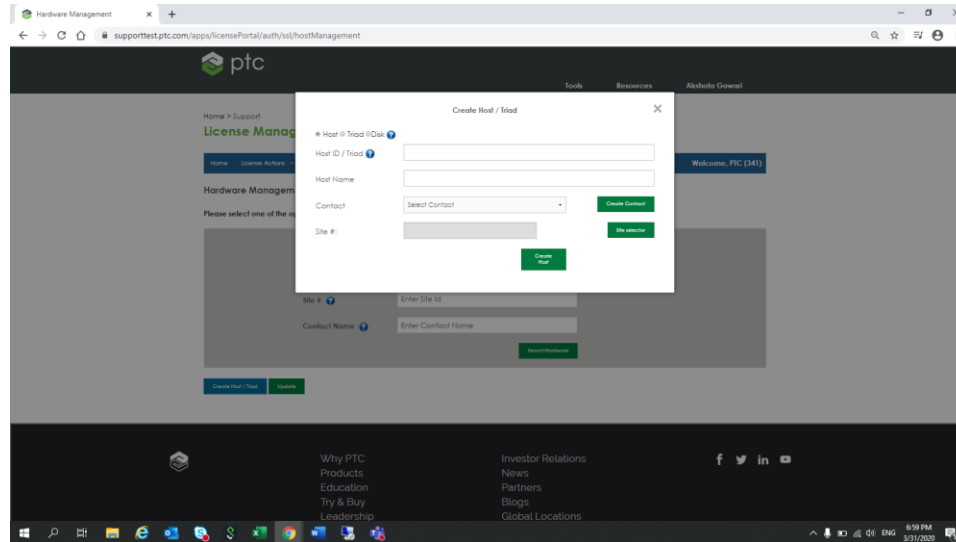
6. Hardware Management

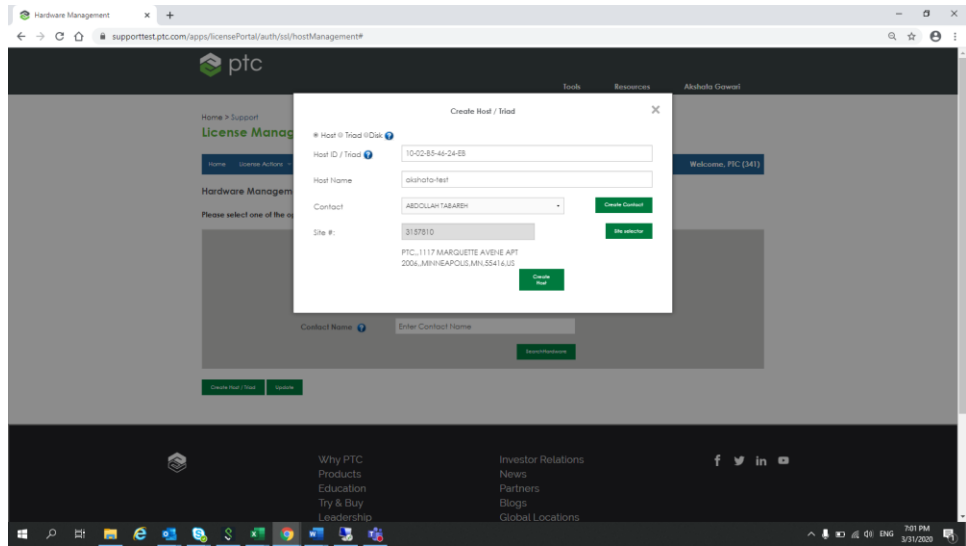
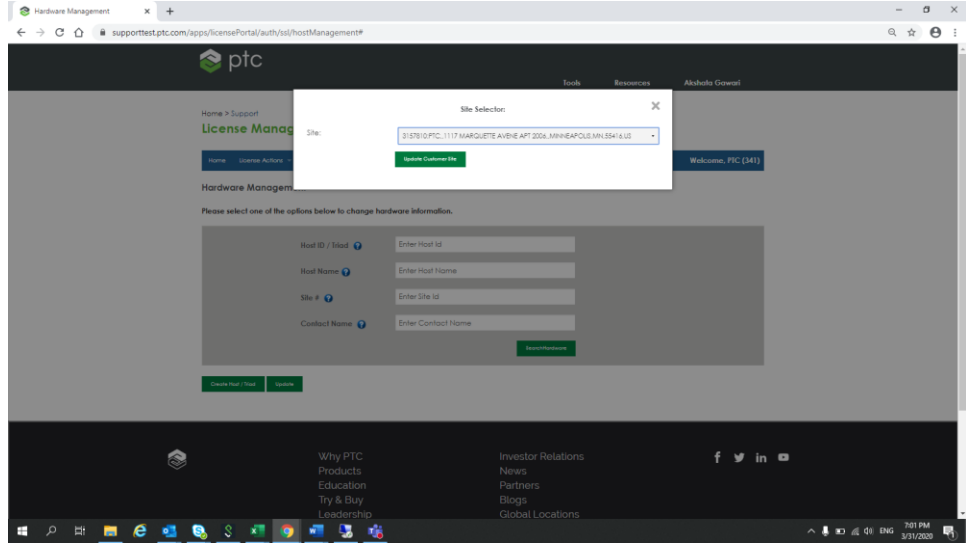
The screenshot shows the PTC License Management portal. The main navigation bar includes 'Home', 'License Activation', 'Asset Management', 'Resources', 'Download Software', and 'Admin'. A dropdown menu is open under 'Asset Management', showing 'License Management' as the selected option. The main content area is titled 'License Management' and contains several sections: 'Ready to license your product?' with a search bar, 'Licenses' with a form to retrieve licenses, and 'ThingWorx / ThingWorx Navigate / Windchill' with a product selection dropdown. On the right, there are side panels for 'Case Logger', 'Case History', 'Submit Feedback', and 'License Repository'. The user is logged in as 'Welcome, PTC (41)'.

The screenshot shows the PTC Hardware Management portal. The main navigation bar is the same as the previous page. The main content area is titled 'Hardware Management' and contains a form to update hardware information. The form has the following fields: 'Host ID / Host' (text input), 'Host Name' (text input), 'Site #' (text input), and 'Contact Name' (text input). Below the form are buttons for 'Cancel Host / Host' and 'Update'. The footer of the page includes a navigation menu with 'Why PTC', 'Products', 'Education', 'Try & Buy', and 'Leadership', as well as 'Investor Relations', 'News', 'Partners', 'Blogs', and 'Global Locations'. The user is logged in as 'Welcome, PTC (41)'.

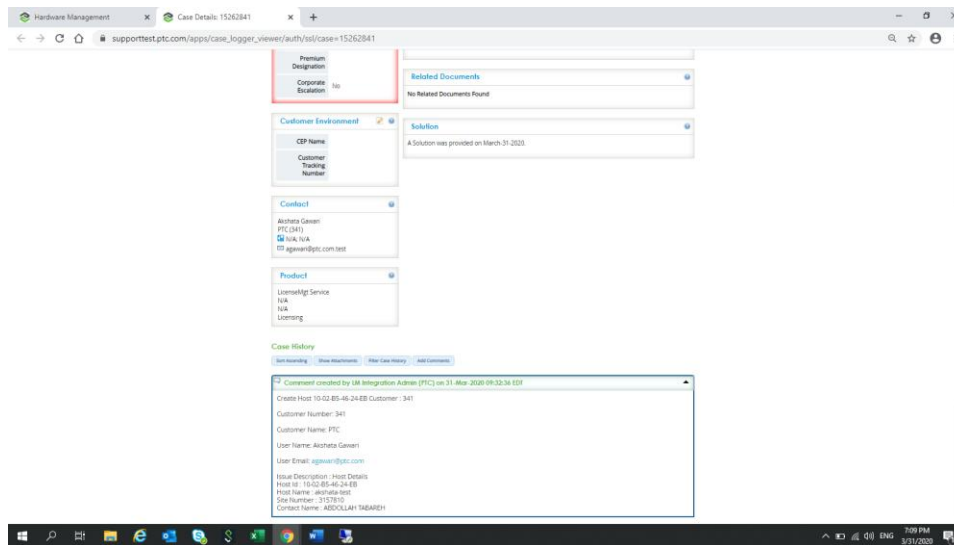
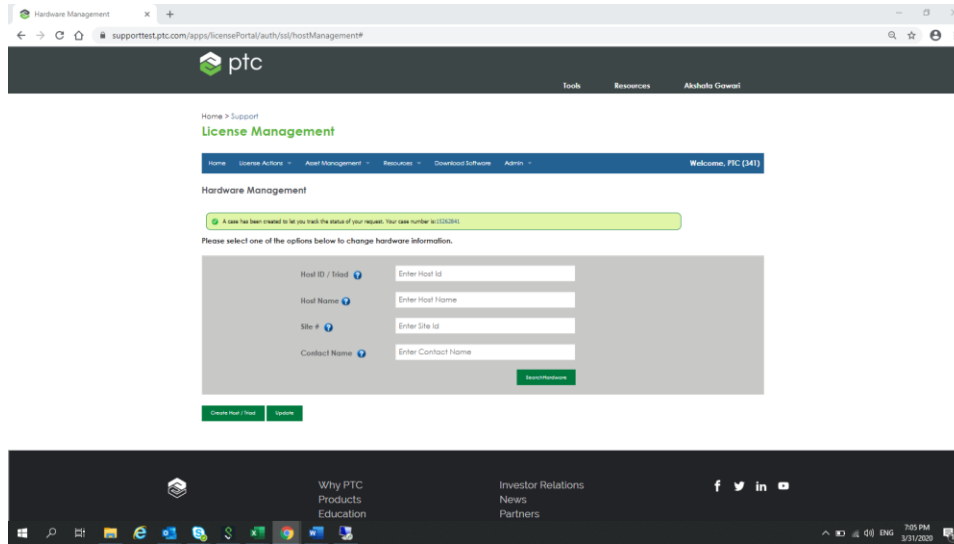
a) Create Host

Click Create Host Id / Triad > A dialog box appears





A case has been created to let you track the status of your request



b) Edit Hardware

Search Hardware by any of the field > Click Edit

The screenshot shows the 'Hardware Management' page in the PTC License Management application. The page has a dark header with the PTC logo and navigation links for 'Tools', 'Resources', and 'Akshata Gowal'. Below the header, there's a breadcrumb 'Home > Support' and a 'License Management' section with a navigation bar containing 'Home', 'License Actions', 'Asset Management', 'Resources', 'Download Software', and 'Admin'. A 'Welcome, PTC (341)' message is visible in the top right.

The main content area is titled 'Hardware Management' and contains the instruction: 'Please select one of the options below to change hardware information.' Below this is a search form with four input fields: 'Host ID / Host' (containing '10-02-85-46-24-EA'), 'Host Name' (placeholder 'Enter Host Name'), 'Site #' (placeholder 'Enter Site Id'), and 'Contact Name' (placeholder 'Enter Contact Name'). A 'Search Hardware' button is at the bottom right of the form.

Below the search form are two buttons: 'Create Host / Host' and 'Update'. Underneath is a table with columns: 'Host ID / Host', 'Host Name', 'Site', 'Contact Name', and 'Action'. The table contains one entry with the following data:

Host ID / Host	Host Name	Site	Contact Name	Action
10-02-85-46-24-EA	10-02-85-46-24-EA	3181265 PTC RDH HENPEL COVE BOULEVARD WINDERMERE, FL34786 US	JASON QUARBERG	Edit Hardware

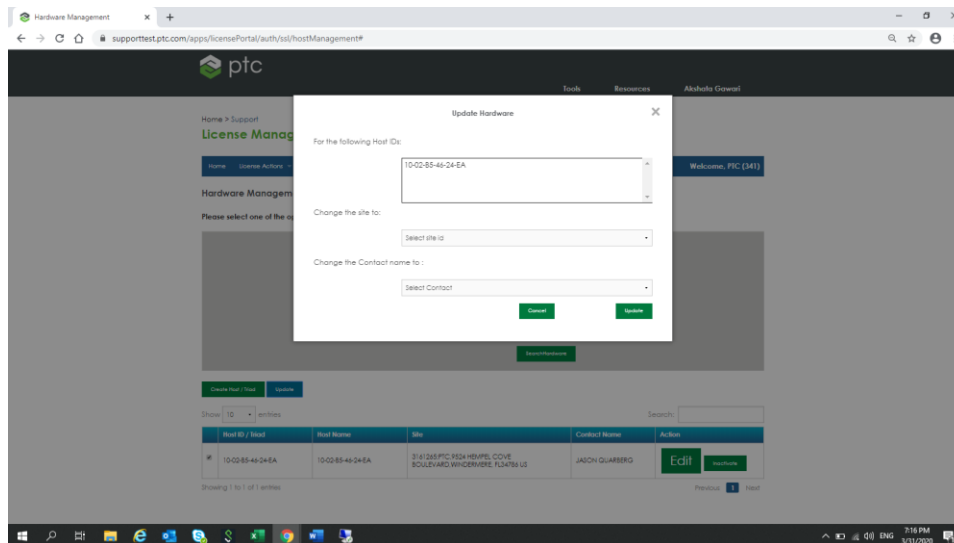
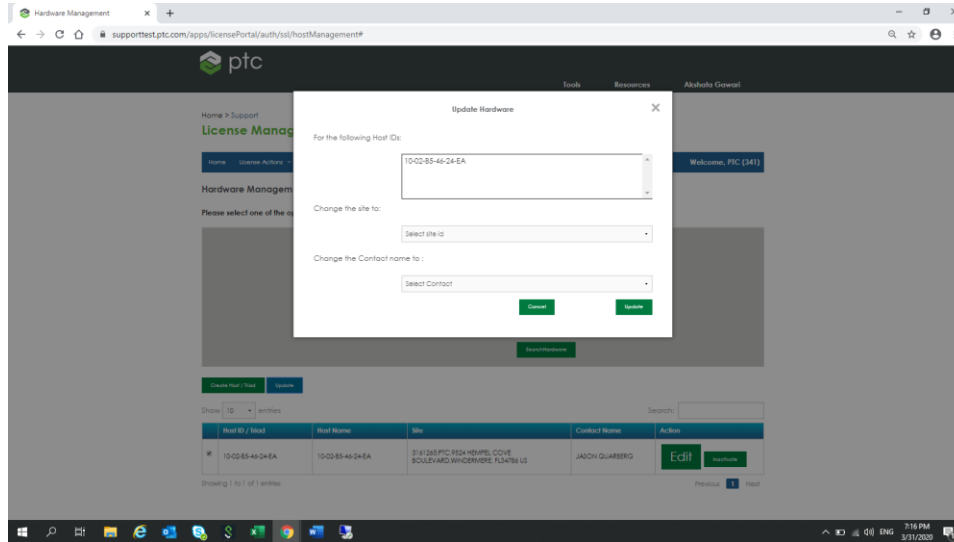
At the bottom of the table, it says 'Showing 1 to 1 of 1 entries'. There is also a 'Previous' link and a 'Host' label.

This screenshot shows the same 'Hardware Management' page as above, but with an 'Update Hardware' modal dialog box open in the center. The dialog has a close button (X) in the top right corner and contains the following fields:

- 'Host ID / Host': 10-02-85-46-24-EA
- 'Host Name': 10-02-85-46-24-EA
- 'Contact': A dropdown menu showing 'JASON QUARBERG' with a 'New' button to its right.
- 'Site #': 3181265
- 'Site': PTC 3524 HENPEL COVE BOULEVARD WINDERMERE, FL34786 US

At the bottom of the dialog are two buttons: 'Update' and 'Cancel'. The background page is dimmed, showing the search form and the table from the previous screenshot.

c) Update hardware:



Hardware Management Case Details: 15262842

supporttest.ptc.com/hpps/case_logger_viewer/auth/jsl/case=15262842

Premium
Designation: Corporate
Education: No

Customer Environment
CEP Name:
Customer Tracking Number:

Contact
Alokata Ganes
PTC (341)
N/A N/A
ajganes@ptc.com.test

Product
LicenseMgt Service
N/A
N/A
LicenseMgt

Additional Issue Details
Please click edit icon above to enter additional issues about your case.

Related Documents
No Related Documents Found

Case History
Set Alerting Show Notifications View Case History Add Comments

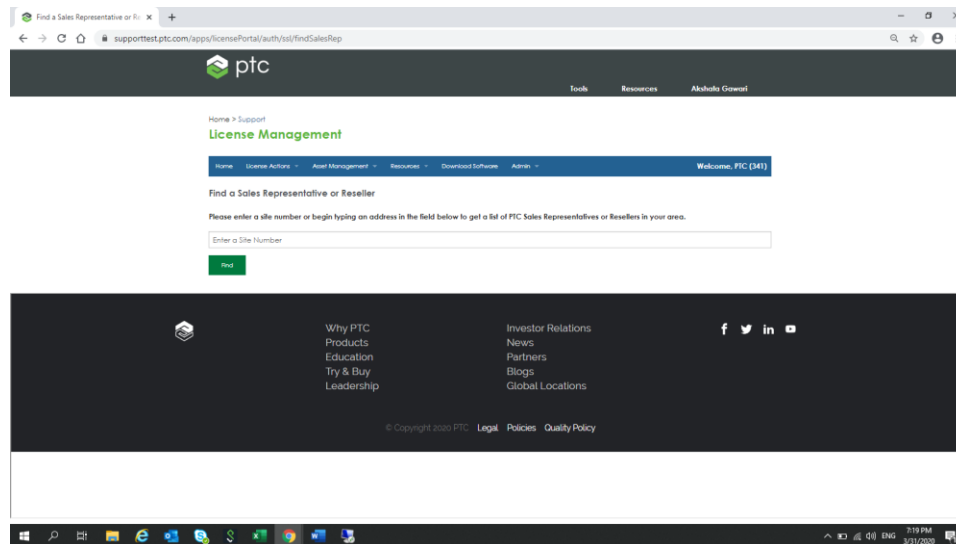
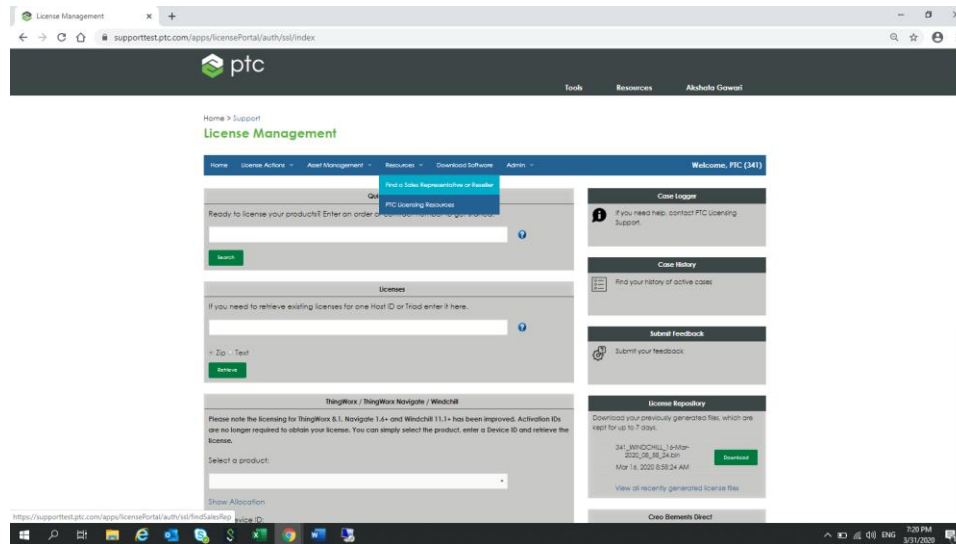
Comment created by UM Integration Admin (PTC) on 31-Mar-2020 09:48:00 EDT
Update Host for Customer : 341
Customer Number: 341
Customer Name: PTC
User Name: Alokata Ganes
User Email: ajganes@ptc.com
Issue Description - Host Details
Host ID : 10.02.85.46.24 EA Host Name : 10.02.85.46.24 EA Site : 2355982 PTC INDA SOFTWARE PVT LTD SURVEY 15 INARISGFT
23RDGACHOPKERS PALMVAI NAGAR PUNE.MH.MHARASHTRA.411011 Contact Name : JACOV QUARBERG

javascript:alert(1)

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7. Find a Sales Representative or Reseller

Click Resources > Find a Sales Representative or Reseller



Find a Sales Representative or Reseller

supporttest.ptc.com/apps/licensePortal/auth/jsd/findSalesRep

ptc

Tools Resources Account Center

Home > Support

License Management

Home License Actions Asset Management Resources Download Software Admin Welcome, PTC (341)

Find a Sales Representative or Reseller

Please enter a site number or begin typing an address in the field below to get a list of PTC Sales Representatives or Resellers in your area.

Go

Sales Representatives

Product	Name	Email
Primary Sales Rep	Michael Meschian	mmeschian@ptc.com
CAD Sales Rep	Michael Meschian	mmeschian@ptc.com
Mach-CAD Sales Rep	Michael Meschian	mmeschian@ptc.com
PLM Sales Rep	Michael Meschian	mmeschian@ptc.com
SCM Sales Rep	Michael Meschian	mmeschian@ptc.com

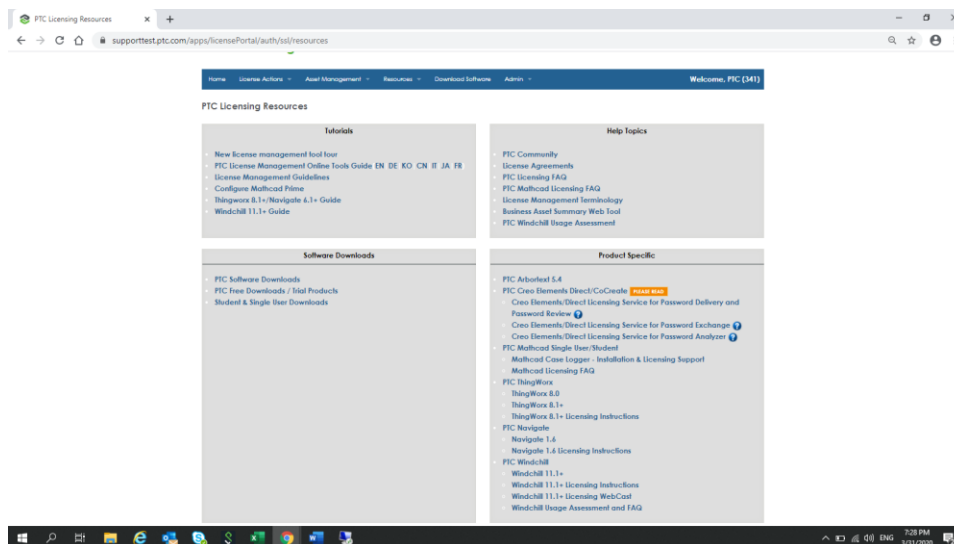
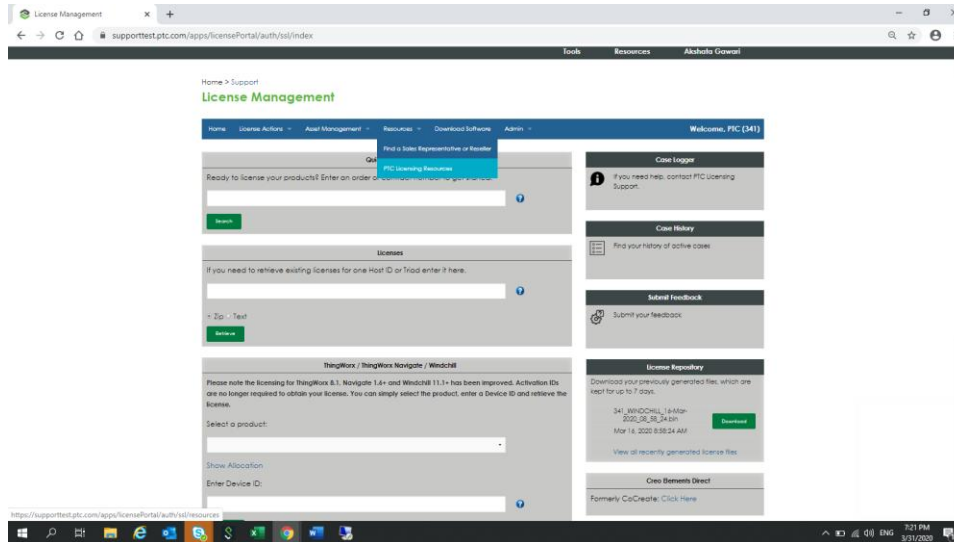
Why PTC
Products
Education
Try & Buy
Leadership

Investor Relations
News
Partners
Blogs
Global Locations

f t in v

7:20 PM 3/31/2018

8. PTC Licensing Resources:



ANNEXURE 2 : OUTPUT REPORTS

WITH DATA

3. Licenses having status – Not Install

The screenshot shows an Excel spreadsheet with columns for CUSTO1, CUSTO2, SALES ORDER #, HOST ID, HOST N, ORDERED ITEM, ORDER #, SVC ITE, ITEM D, REV, QTY, REFERE, L/F, STATUS, PRODU, SERVIC, CONTR, CONTR, SITE, ADDR1, ADDR2, ADDR3, and ADDR4. The data includes various software licenses such as Education ENG-4002, Productivity DVP-2187, and Creo View WED-2830. The status for all listed licenses is 'Not Install'.

4. Licenses having status – Expired

The screenshot shows an Excel spreadsheet with columns for CUSTO1, CUSTO2, SALES ORDER #, HOST ID, HOST N, ORDERED ITEM, ORDER #, SVC ITE, ITEM D, REV, QTY, REFERE, L/F, STATUS, PRODU, SERVIC, CONTR, CONTR, SITE, ADDR1, ADDR2, ADDR3, and ADDR4. The data includes licenses such as CADDS 5 V CCS-C53R, Mathcad F MCD-7501, and GPOST for CCS-CV65. The status for all listed licenses is 'Expired'.

5. Licenses report on Host ID : 00-03-FF-1C-A3-2A

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
2	CUSTO1	CUSTO2	SALES ORDER #	HOST #	ORDERED ITEM	ORDER #	SVC ITE #	ITEM D #	REV #	QTY	REFERE	L/F	STATUS	PRODU #	SERVIC #	CONTR #	CONTR #	SITE #	ADDR1 #	ADDR2 #	ADDR3 #	
5377	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/LST-REP-P-Creo Base	640				1	681225	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
5380	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/ENG-REPI-Creo Base	640				1	681224	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
540	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/PCO-7000 Pro/CON	640				1	681224	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
640	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	Arbortext ATD-REPA/Arbortext	673				1	685924	L	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
6050	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/ENG-REPI-Creo Base	640				1	629883	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
6050	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/LST-REP-P-Creo Base	640				1	629886	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
6050	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/DVV-REP-P-Creo View	640				1	629880	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		
6050	541	PTC	2840377	00-03-FF-INEPO_VM PKG-REPPPL-F	FPL REP P/PCO-7000 Pro/CON	640				1	629883	F	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20	203474	PTC	RUA SAMUI		

6. Licenses for particular ordered item code: DVP-2387-F-

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
2	CUSTO1	CUSTO2	SALES ORDER #	HOST #	ORDERED ITEM	ORDER #	SVC ITE #	ITEM D #	REV #	QTY	REFERE	L/F	STATUS	PRODU #	SERVIC #	CONTR #	CONTR #	SITE #	ADDR1 #	ADDR2 #	ADDR3 #		
36	341	PTC	1294504		DVP-2387-F-					33	290396	F	Not Instal	Time-Rest	2A154191	ACTIVE							
43	341	PTC	1294504		DVP-2387-F-					1	318952	F	Not Instal	Time-Rest	2A154191	ACTIVE							

7. Licenses for particular ordered item description - Arbortext IsoDraw Rep Package - Floating

CUSTO1	CUSTO2	SALES ORDER #	HOST E	HOST N	ORDERED ITEM	ORDER #	SVC ITE	ITEM D	REV	QTY	REFERE	L/F	STATUS	PRODU	SERVIC	CONTR	CONTR	SITE	ADDR1	ADDR2	ADDR3	ADDR4	
629	541	PTC	2837072	EC-F4-BB-OFRANCH	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6094061	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20100492	PTC			EUROPARIS	
630	541	PTC	2837072	EC-F4-BB-OFRANCH	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6094062	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20100492	PTC			EUROPARIS	
763	541	PTC	2837112		PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				559	6094383	F	Not Inst	Time-Res	2A154191	ACTIVE	16-Aug-2021						
764	541	PTC	2837112		PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				581	6094384	F	Not Inst	Time-Res	2A154191	ACTIVE	16-Aug-2021						
861	541	PTC	2837080	3C-A9-F4-3C-A9-F4-8	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6094519	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012648	PTC			2930 EAST ST	
862	541	PTC	2837080	3C-A9-F4-3C-A9-F4-8	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6094520	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012648	PTC			2930 EAST ST	
965	541	PTC	2837080	AC-FD-FC-AC-FD-CE	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6096602	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2014353	PTC			201 CONTI SL	
974	541	PTC	2837112	3C-A9-F4-3C-A9-F4-4	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6097278	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20125233	PARAMETRIC TECH			IMMUEBU 11	
975	541	PTC	2837080	3C-A9-F4-3C-A9-F4-4	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6097279	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20125233	PARAMETRIC TECH			IMMUEBU 11	
105	541	PTC	2837080	00-50-56-fhq-1pgrdja	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072059	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20131293	PTC			2 WEST MA ST	
108	541	PTC	2837112	84-7B-EB-TMCGINN	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072397	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2014366	PTC			140 KENDRICK	
108	541	PTC	2837112	84-7B-EB-TMCGINN	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072401	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2014366	PTC			140 KENDRICK	
109	541	PTC	2837072	04-81-D7-04-81-D7	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072797	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012913	PTC			1571, NO. 46	
109	541	PTC	2837072	04-81-D7-04-81-D7	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072803	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012913	PTC			1571, NO. 46	
112	541	PTC	2837072	88-AC-6F-lbretz1d	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072838	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2014369	PTC			EDMONSTRA	
114	541	PTC	2837072	88-AC-6F-lbretz1d	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6072865	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2014369	PTC			EDMONSTRA	
124	541	PTC	2838284	00-50-56-fhq-1pgrdja	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				2000	6073645	F	Installed	Time-Res	2A154191	ACTIVE	29-Aug-20	2018324	PTC			140 KENDRICK	
124	541	PTC	2838284	00-50-56-fhq-1pgrdja	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				2000	6073646	L	Installed	Time-Res	2A154191	ACTIVE	29-Aug-20	2018324	PTC			140 KENDRICK	
130	541	PTC	2837112	EC-F4-BB-FEDASLV	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6075026	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20130474	PTC			RIA SAMUEI	
131	541	PTC	2837112	EC-F4-BB-FEDASLV	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6075044	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20130474	PTC			RIA SAMUEI	
142	541	PTC	2837072	DC-53-6D-TOKI2L	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6070148	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20130265	PTC			PTC JAPAI 1-13-11 KCF PL	
144	541	PTC	2837072	DC-53-6D-TOKI2L	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6070174	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20130265	PTC			PTC JAPAI 1-13-11 KCF PL	
151	541	PTC	2837072	34-E6-D7-BVEASEYO	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6071281	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20129294	PTC/USER, INC			5247 WILS SL	
153	541	PTC	2837072	34-E6-D7-BVEASEYO	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6071307	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	20129294	PTC/USER, INC			5247 WILS SL	
157	541	PTC	2837080	00-F9-9D-BOBUSEK	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6071397	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012942	PTC			700 EAST WY	
168	541	PTC	2837080	EC-F4-BB-ROBUSEK	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6071404	F	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012942	PTC			3701 LEGA BL	
168	541	PTC	2837080	EC-F4-BB-ROBUSEK	PKG-REPSO-F	Arbortext ATD-REPA-Arbortext 073				1	6071405	L	Installed	Time-Res	2A154191	ACTIVE	16-Aug-20	2012942	PTC			3701 LEGA BL	

8. Licenses for particular license type – L (Lock)

CUSTO1	CUSTO2	SALES ORDER #	HOST E	HOST N	ORDERED ITEM	ORDER #	SVC ITE	ITEM D	REV	QTY	REFERE	L/F	STATUS	PRODU	SERVIC	CONTR	CONTR	SITE	ADDR1	ADDR2	ADDR3	ADDR4
66	541	PTC	2328287	00-24-09-18xengmt	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6202151	L	Installed	Perpetual	2A154191	EXPIRED	09-Jan-20	2013042	PTC			1725 WINDSL
74	541	PTC	2384677	3C-A9-F4-FROUCHEI	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6034662	L	Installed	Perpetual	2A154191	EXPIRED	31-Jul-20	20101983	PARAMETRIC TECH			1 RUE DU PRC
78	541	PTC	2384677	34-E6-D7-SFREDERI	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6035342	L	Installed	Perpetual	2A154191	EXPIRED	31-Jul-20	20124914	PTC DENMARK			LYNGBYVEJ 14
80	541	PTC	2384677	3C-A9-F4-Khalgrim	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6035552	L	Installed	Perpetual	2A154191	EXPIRED	31-Jul-20	20124914	PTC DENMARK			LYNGBYVEJ 14
82	541	PTC	2384677	34-E6-D7-SFREDERI	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6035660	L	Installed	Perpetual	2A154191	EXPIRED	31-Jul-20	20124914	PTC DENMARK			LYNGBYVEJ 14
89	541	PTC	2384622	00-24-D7-WIN-WIN	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				5	6039333	L	Installed	Perpetual	2A154191	EXPIRED	01-Aug-20	20135782	PTC			#206, Kyju 7-4
110	541	PTC	2426990		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6799626	L	Expired	ULF / Com	2A154191	EXPIRED	13-Apr-2007					
111	541	PTC	2426990		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6799627	L	Expired	ULF / Com	2A154191	EXPIRED	13-Apr-2007					
112	541	PTC	2426990		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6799628	L	Expired	ULF / Com	2A154191	EXPIRED	13-Apr-2007					
113	541	PTC	2426990		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6799629	L	Expired	ULF / Com	2A154191	EXPIRED	13-Apr-2007					
116	541	PTC	2459809		CPT-3235-L	Special TA.ENG-3235 Special TA.140				100	6893465	L	Not Inst	Perpetual	2A154191	EXPIRED	28-Nov-2009					
118	541	PTC	2459809	00-13-72-00-13-72	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				10	6893467	L	Installed	Perpetual	2A154191	EXPIRED	28-Nov-20	2013496	PTC			140 KENDRICK
138	541	PTC	2440008	00-24-D7-WIN-WIN	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				10	6899382	L	Installed	Perpetual	2A154191	EXPIRED	01-Aug-20	20135782	PTC			#206, Kyju 7-4
139	541	PTC	2440008		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6899555	L	Expired	ULF / Com	2A154191	EXPIRED	02-Jul-2007					
140	541	PTC	2440008		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6899556	L	Expired	ULF / Com	2A154191	EXPIRED	02-Jul-2007					
141	541	PTC	2440008		PKG-MLS101-F	Mathcad F1MCD-7503 Mathcad 140				5	6899558	L	Expired	ULF / Com	2A154191	EXPIRED	02-Jul-2007					
144	541	PTC	2440008	00-24-D7-WIN-WIN	PKG-REPL-F	FPL REP PL.ENG-REPP Creo FPL F410				10	6902786	L	Installed	Perpetual	2A154191	EXPIRED	01-Aug-20	20135782	PTC			#206, Kyju 7-4
145	541	PTC	2426990	00-15-58-00-15-58	PKG-MLS103-L	Perpetual MCD-ML6 Perpetual 140				5	6966344	L	Installed	Perpetual	2A154191	EXPIRED	31-Dec-19	2014366	PTC			140 KENDRICK
150	541	PTC	2426990	00-15-58-00-15-58	PKG-MLS103-L	Perpetual MCD-7501 Mathcad 140				5	6966345	L	Installed	Perpetual	2A154191	EXPIRED	31-Dec-19	2014366	PTC			140 KENDRICK
153	541	PTC	2482322		PKG-7502-L	Mathcad F1MCD-7502 Mathcad 140				1	6973110	L	Not Inst	Perpetual	2A154191	EXPIRED	19-Mar-2008					
154	541	PTC	2482322		PKG-7502-L	Mathcad F1MCD-7502 Mathcad 140				1	6973111	L	Not Inst	Perpetual	2A154191	EXPIRED	19-Mar-2008					
155	541	PTC	2482322		PKG-7502-L	Mathcad F1MCD-7503 Mathcad 140				1	6973112	L	Expired	ULF / Com	2A154191	EXPIRED	19-Mar-2008					
156	541	PTC	2482322		PKG-7502-L	Mathcad F1MCD-7503 Mathcad 140				1	6973113	L	Expired	ULF / Com	2A154191	EXPIRED	19-Mar-2008					
159	541	PTC	2426990	00-1A-73-00-1A-73	PKG-MLS103-L	Mathcad F1MCD-ML6 Mathcad 140				1	6998620	L										

9. Licenses for particular license type – F (Floating)

CUSTNO	CUSTO	SALES ORDER #	HOST #	ORDERED ITEM	ORDER #	SVC TPE	ITEM D	REV	QTY	REFERENCE	L/F	STATUS	PRODU	SERVIC	CONTR	CONTR	SITE	ADDR1	ADDR2	ADDR3	AD
3	541	PTC	501058	PKG-4002-F	Education ENG-4002	Education	4002	Education	540	5	110681	F	Not Instal	Time-Rest	2A154191	ACTIVE	31-Dec-2049				
4	541	PTC	501058	00-10-83-(00-10-83-CPKG-4004-F	Education ENG-4004	Education	4004	Education	540	5	1106701	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20255066	PTC			1440 WEST CE
5	541	PTC	5128248	CCS-CV900-F	CADDS 5	CCS-CV900	CADDS UN	180	5	512116	F	Expired	ULF / Com	2A154191	EXPIRED	31-Dec-2010					
6	541	PTC	5138335	PKG-3186-F	1-DEAS to ENG-3187	Creo Four	540	5	529774	F	529774	F	Not Instal	Time-Rest	2A154191	ACTIVE	02-Jan-2050				
7	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2127-F	Windchill WNC-2127	Windchill	112	5	527484	F	527484	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
8	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2150-F	Windchill WNC-2150	Windchill	112	5	527485	F	527485	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
9	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2126-F	Windchill WNE-2126	Workgroup	112	5	527486	F	527486	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
10	541	PTC	2006247	BB-CA-8A-BB-CA-8A-WNC-2133-F	Windchill WNE-2132	Workgroup	112	5	527487	F	527487	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-202355066	PTC			140 KENDORCI
11	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2133-F	Windchill WNE-2131	Workgroup	112	5	527488	F	527488	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
12	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2140-F	Windchill WNE-2140	Workgroup	112	5	527489	F	527489	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
13	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2311-F	Windchill WNA-2311	Windchill	112	5	527490	F	527490	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
14	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-CP5033-F	Windchill WNA-2353	Windchill	112	5	527491	F	527491	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
15	541	PTC	2006247	MNTREL-2MNTREL-2 WEC-C9009-F	Windchill WEC-C900	Windchill	112	5	527494	F	527494	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
16	541	PTC	2006247	MNTREL-2MNTREL-2 WEC-C9009-F	Partslink WEC-C900	PTC Parts	112	5	527495	F	527495	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
17	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2340-F	Windchill WNA-2340	Windchill	112	5	527496	F	527496	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
18	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2344-F	Windchill WNA-2344	Windchill	112	5	527497	F	527497	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
19	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2341-F	Windchill WNA-2341	Windchill	112	5	527498	F	527498	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
20	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2346-F	Windchill WNA-2344	Windchill	112	5	527499	F	527499	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
21	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2342-F	Windchill WNA-2344	Windchill	112	5	527500	F	527500	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
22	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2353-F	Windchill WNA-2353	Windchill	112	5	527501	F	527501	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
23	541	PTC	2006247	MNTREL-2MNTREL-2 WNA-2376-F	Windchill WNA-2378	BaanERP	112	5	527502	F	527502	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
24	541	PTC	2006247	MNTREL-2MNTREL-2 WNC-2142-F	Windchill WNE-2142	Windchill	112	5	527504	F	527504	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234366	PTC			140 KENDORCI
25	541	PTC	5282275	00-02-3F-(00-02-3F-CPKG-3963-F	Creo e/EN-ENG-3963	e/ENGINE	540	5	528470	F	528470	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20234061	PTC	ACADEMIC TEA	L21 SEAFORT	
26	541	PTC	5282275	00-00-76-(00-00-76-MNEXDLPTRN-3184-F	Creo Mod-ENG-3184	ModelChk	540	5	528471	F	528471	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20232168	PTC			2390 SAIT SU
27	541	PTC	5294504	00-1C-23-(00-1C-23-DVP-2392-F	Division DVP-2392	DIVISION	560	5	528750	F	528750	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-202355066	PTC			1440 WEST CE
28	541	PTC	5294504	4C-00-1D-(4C-00-1D-DVP-2361-F	Division DVP-2361	Mentor G&S	560	5	528823	F	528823	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-202140093	PARAMET (INDIA)	P148BASSY V11		1440 WEST CE
29	541	PTC	5294504	06-1C-33-(06-1C-33-DVP-2383-F	Division DVP-3383	DIVISION	560	5	529015	F	529015	F	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-202355066	PTC			1440 WEST CE

10. Licenses for particular license type – T (Temporary Floating)

11.

CUSTNO	CUSTO	SALES ORDER #	HOST #	ORDERED ITEM	ORDER #	SVC TPE	ITEM D	REV	QTY	REFERENCE	L/F	STATUS	PRODU	SERVIC	CONTR	CONTR	SITE	ADDR1	ADDR2	ADDR3	AD
33	541	PTC	2014412	78-24-FA-(78-24-FA-CPKG-3968-F	Creo Flexi-ENG-3968	Flexible E	540	5	507842	T	507842	T	Installed	Time-Rest	2A154191	ACTIVE	31-Dec-20117856	PARAMETRIC TECH	BATMERS		
482	541	PTC	2815443	PKG-REPAT-F	Arbortek AEE-E18E	Arbortek	071	5	649700	T	649700	T	Not Instal	Perpetual	2A154191	EXPIRED	22-Dec-2018				
483	541	PTC	2815443	PKG-REPAT-F	Arbortek AEE-E72E	Arbortek	071	5	649700	T	649700	T	Not Instal	Perpetual	2A154191	EXPIRED	22-Dec-2018				
484	541	PTC	2815443	04-ED-33-(04-ED-33-PKG-REPAT-F	Arbortek AST-S721	Arbortek	071	5	649701	T	649701	T	Installed	Perpetual	2A154191	EXPIRED	22-Dec-20234366	PTC			140 KENDORCI
485	541	PTC	2815443	PKG-REPAT-F	Arbortek AEE-S722	Arbortek	071	5	649702	T	649702	T	Not Instal	Perpetual	2A154191	EXPIRED	22-Dec-2018				
514	541	PTC	2817279	20-6A-8A-(20-6A-8A-CPKG-REPAT-F	Arbortek AST-S721	Arbortek	071	5	658109	T	658109	T	Installed	Perpetual	2A154191	EXPIRED	22-Dec-20234366	PTC			140 KENDORCI
2181	541	PTC	2840377	04-83-07-(04-83-07-smercedr)PKG-REPCD-F	Method F MCD-REP	Method	560	5	672575	T	672575	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20153810	PTC			121 SEARCI
2198	541	PTC	2840377	04-83-07-(04-83-07-smercedr)PKG-REPCD-F	Method F MCD-REP	Method	560	5	672576	T	672576	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20153810	PTC			121 SEARCI
2208	541	PTC	2840377	04-83-07-(04-83-07-smercedr)PKG-REPCD-F	Arbortek ATD-REP	Arbortek	071	5	672578	T	672578	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20153810	PTC			121 SEARCI
2273	541	PTC	2840377	3C-4A-74-(3C-4A-74-Integrity)PKG-REPAT-F	Integrity F MG-REP	Integrity	123	5	672577	T	672577	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20141560	PTC			540 ARAPCI
2182	541	PTC	2837112	20-6A-8A-(20-6A-8A-CPKG-REPAT-F	Arbortek AEE-REP	Arbortek	112	5	674079	T	674079	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20234366	PTC			140 KENDORCI
2651	541	PTC	2837112	00-0C-29-(00-0C-29-PPCTRAN)PKG-REPAT-F	Arbortek AEE-E18E	Arbortek	060	5	674828	T	674828	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20235582	PTC	INDIA SOFTWARE	SURVEY LV	
6073	541	PTC	2840377	20-6A-8A-(20-6A-8A-CPKG-REPAT-F	Arbortek AEE-E227	Arbortek	060	5	681523	T	681523	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20234366	PTC			140 KENDORCI
7032	541	PTC	2840377	00-0C-29-(00-0C-29-CPKG-REPAT-F	Arbortek AEE-E18E	Arbortek	060	5	682111	T	682111	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20212385	PTC	JAPAF 6-1 NIS		
7033	541	PTC	2840377	00-0C-29-(00-0C-29-CPKG-REPAT-F	Arbortek AEE-E72E	Arbortek	060	5	682112	T	682112	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20212385	PTC	JAPAF 6-1 NIS		
7034	541	PTC	2840377	00-0C-29-(00-0C-29-CPKG-REPAT-F	Arbortek AST-S721	Arbortek	060	5	682117	T	682117	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20212385	PTC	JAPAF 6-1 NIS		
8361	541	PTC	2837112	F8-CA-8B-(F8-CA-8B-CPKG-REPPPL-F	FPL REP PLENG-REP1	Creo BASE	640	5	689584	T	689584	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20205474	PTC			RIJA SAMU
10673	541	PTC	2840377	00-30-56-(00-30-56-CPKG-REPAT-F	Integrity F MG-REP	Integrity	123	5	691881	T	691881	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20213227	PTC	METROPO 20	BRINDLE	
1088	541	PTC	2837072	34-ES-07-(34-ES-07-WIC-REP-F	Creo View WIC-REP	InterCom	640	5	691868	T	691868	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20200792	PARAMETRIC TECH	68 VINCE		
10873	541	PTC	2837072	34-ES-07-(34-ES-07-WIC-REP-F	Creo View WED-2833	InterCom	640	5	6919470	T	6919470	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20200792	PARAMETRIC TECH	68 VINCE		
10874	541	PTC	2837072	34-ES-07-(34-ES-07-WIC-REP-F	Creo View WCP-REP	Creo View	640	5	6919472	T	6919472	T	Installed	Time-Rest	2A154191	ACTIVE	16-Aug-20200792	PARAMETRIC TECH	68 VINCE		
11231	541	PTC	2840377	00-0C-29-(00-0C-29-CPKG-REPPPL-F	FPL REP DIVV-REP2	Creo View	640	5	693879	T	693879	T	Installed	Time-Rest	2A154191	ACTIVE	16-Sep-20234366	PTC			140 KENDORCI
11232	541	PTC	2840377	00-0C-29-(00-0C-29-CPKG-REPPPL-F	Creo View DIVV-REP2	Creo View	640	5	693881	T	693881	T	Installed	Time-Rest	2A154191	ACTIVE					

