## 1.1    <u>Company Profile :</u>

ACME Tech Systems is a offshore IT outsourcing services Custom Web Application Development, Software Development and Network services. ACME Tech Systems is a customer centric organization with a vision to deliver best software development services that make customers smile. We believe in customer engagement and transparent functioning rather than keeping the customers in dark till the delivery date arrives. A continuous customer involvement with our production and better than expected end-results enable us to win over the trust of customers that is usually missing between the client and offshore IT outsourcing services providers even after several project deliveries.

ACME Tech Systems has a set of core values and behaviors that determine our work culture in which everyone is focused on helping our clients deal with the rigors of modern business. The dynamic values, which run throughout ACME, unify a diverse team of certified IT professionals and form the basis for our actions, our

attitudes, our behavior and ultimately our sustained success. It drives the way we interact with our clients and within our team.

ACME Tech System is a leading customized process-driven software solutions provider based in India.

**Customer Satisfaction–**

We listen. We devote energy to understand clients' needs and challenges and commit to solve them. It's an essential part of building trust, building relationships and building business.

**Commitment to Execute –**

We do what we say. We deliver results on time, on budget and to agreed quality standards.

**Profitability –**

We're sharply aware that everything we do impacts upon our profitability. Controlling expenditure and managing costs might sound rather dull, but if we do it right, we have a secure foundation upon which to build a promising future.

**Team Work –**

ACME delivers high quality IT services and web solutions that add real value to our clients' enterprises, and give them a significant competitive advantage. In fact, we consider our clients a valuable part of our team and work closely with them to achieve desired results that are closer to their real time business needs and at the same time, innovative and technically competitive in a manner we had envisioned them to be.

## 1.2    Existing System And Need Of System :

Testing software applications can require hundreds to thousands of unique test cases, weeks or even longer to execute them, and the ability to efficiently manage the results. As software becomes increasingly more complex and development schedules more aggressive, teams are frequently overwhelmed by the sheer magnitude of the testing effort.

You need to organize and manage your tests cases and bugs which are appear during testing in a way that will allow you to work effectively and efficiently  helps you customize your manual tests, and organize your work  in an hierarchical view tree, giving your engineers a simple and comfortable platform to run their manual tests.

You need to track the changes made to a test cases and bugs, making everyone accountable for his work. Overall, the entire team knows the state of testing and the quality of the application. The team also knows how much more testing is

required and can easily estimate the time needed to ready the application for delivery.

This system will help to maintain a quality of service and derive customer satisfaction.

### 1.3    <u>Scope Of Work :</u>

A bug  tracking  system is  a software  application that  is designed  to  help quality  assurance and programmers keep  track  of reported software  bugs in  their  work. This  system  allows  users  to enter bug reports directly. This system keeps the track of the time a bug was reported, its severity, the erroneous program behavior, and details on how to reproduce the bug; as well as the identity of the person who reported it and any programmers who may be working on fixing it. A  bug  tracking  system  allows  administrators  to configure permissions to the quality assurance tem.

The bug tracking tool also able to register the new members in quality assurance team. There are various levels of users of this system. There authorization varies from there level. Some user can assigned the test case module to the other member of team and some members can have access to "register bug" module.

Module wise test cases can be added in this system which contains many test cases with their description. When the module is

assigned to particular member of quality assurance team, the member can submit the result of test case (Pass/Fail) with description. Members can edit these details if they want to make any changes in the bug report.

Managers can view the test case reports. These reports are displayed module wise. These reports contain test case id, description, result and name of the person who has executed that test case. Also different charts are used to see status of any module.

A test case also includes the information of both the developer and the designer of that particular test case, which is helpful for the person who is executing that test case. If the person doesn't understand the test steps then he can check who has designed that test case and directly contact to the designer.

The System covers the following areas.

- Create new project for testing.

- Create test suite and add test cases into test suite.

- Write new test cases

- Assign test cases to testers

- Execute test cases (update test cases with status – Passed, Failed, Untested)

- Store test related files, scripts, screen captured etc.

- Create and Register Bugs.

Run reports and track progress.

**Users of System:-**

- Admin.

- Project Manager.

- Developer.

- Quality Analyst.

**<u>Modules:-</u>**

1. Manage Users (By Master Admin)

   -Add User Details.

   -Edit User Details.

2.  Manage Project Details.

    -Add Project Details.

    -Edit Project Details.

3.  Manage Module Details.

    -Add Project Details.

    -Edit Project Details.

4.  Set Priorities.

    -Set user permissions.

    -Update permissions.

5.  Assign Test Cases.

    -Assign Module For Designing Test Cases.

    -Assign Module For Executing Test Cases.

6.  Design Test Cases.

    -Add Test Case.

    -Edit Test Case.

7.  Execute Test Cases.

8.  Manage Bug Details.

    -Add Bug Details.

-Edit Bug Details.

-Delete Bug Details.

9. Reports.

-Test Case Report(Project Wise/Module Wise)

-User Details.

-Bug Details.

-Frame Details.

-Task Details.

## 1.4    Operating Environment-Hardware and Software:

**Server side :**

Hardware:

- Processor: Any server compatible processor eg Intel Xenon.

- RAM: Minimum 1 GB.

- Hard Disk: Minimum 80 GB

Software:

- MySQL5 or advance support

- Apache2.2. or advance support

- PHP5 or advance support

- Operating System: Authorized Windows xp.

**Client side**

Hardware:

- Processor :Pentium (4) and above

- RAM: Minimum 512 MB

- Internet Connection

Software:

- Operating System: Authorized Windows/Linux

- Web Browser: Internet Explorer 7+, Firefox 3+, Opera 9+,

  Safari 3+, Chrome 3+ .

## 1.5    <u>Detail Description of Technology Used :</u>

## About PHP and MySQL

PHP is the Web development language. PHP stands for *PHP :Hypertext Preprocessor.* PHP is a <u>Server-side</u> scripting language, which can be embedded in HTML or used as a standalone binary. PHP is a computer scripting language, originally designed for producing dynamic web pages. It is for server-side scripting, but can be used from a command line interface or in standalone graphical applications.

**Benefits of PHP**

• Easy to Code Programs

• Open source Technology

• Tremendous Opening in IT Company

• Suitable in All Operating System

• Easy made web Application

• Flexible Server.

• Consequently, small and medium sized companies have started

following PHP/MYSQL Programming.

• AJAX in PHP makes application faster and interactive.

• AJAX in PHP Reduces Network Traffic

• AJAX in PHP Increases Speed

• AJAX in PHP Increases Response Time

• AJAX Enhances User Experience

• AJAX Used by many popular Internet Companies

PHP is an open source code, where anyone can download and make

use of the application free of cost. It is easy to obtain  the   complete

source code and customize it according to one's requirement. As of

April 2007, over 20 million Internet domains were hosted on servers

with  PHP  installed , and  PHP  was  recorded  as  the  most popular

Apache module. Of late the exuberating release of PHP was version

5.2.6 on May 1, 2008.

## History

PHP originally stood for personal home page. It began in 1994 as a set of <u>Common Gateway Interface</u> (CGI) <u>binaries</u> written in the <u>C programming language</u> by the <u>Danish</u>/<u>Greenlandic</u> programmer <u>Rasmus Lerdorf</u>. Lerdorf initially created these Personal Home Page Tools to replace a small set of <u>Perl</u> scripts he had been using to maintain his <u>personal homepage</u>. The tools were used to perform tasks such as displaying his résumé and recording how much <u>traffic</u> his page was receiving.

## Features

### 1. Cookies

PHP transparently supports HTTP cookies. Cookies are a mechanism for storing data in the remote browser and thus tracking or identifying return users. You can set cookies using the <u>setcookie()</u> or <u>setrawcookie()</u> function. Cookies are part of the HTTP header, so <u>setcookie()</u> must be called before any output is sent to the browser.

This is the same limitation that header() has. You can use the output buffering functions to delay the script output until you have decided whether or not to set any cookies or send any headers.

Any cookies sent to you from the client will automatically be included into a $_COOKIE auto-global array if variables_order contains "C". If you wish to assign multiple values to a single cookie, just add [] to the cookie name.

Depending on register_globals, regular PHP variables can be created from cookies. However it's not recommended to rely on them as this feature is often turned off for the sake of security. *$HTTP_COOKIE_VARS* is also set in earlier versions of PHP when the track_vars configuration variable is set. (This setting is always on since PHP 4.0.3.)

## 2. Sessions

Session support in PHP consists of a way to preserve certain data across subsequent accesses. This enables you to build more

customized applications and increase the appeal of your web site. All information is in the [Session reference](#) section.

**3. File Upload**

This feature lets people upload both text and binary files. With PHP's authentication and file manipulation functions, you have full control over who is allowed to upload and what is to be done with the file once it has been uploade.

**Windows,** the operating system;

**Apache**, the Web server;

**MySQL**, the database management system (or database server);

**PHP** (Sometimes Perl or Python), the programming language.

## 2.1 Proposed System.

- System will be able to maintain project related information.

- System will be able to track test cases effectively.

- System will track the bugs and defects related information in Database.

- System will notify the developers about the bugs in their code.

- System will help user to track the progress and quality of the testing work.

- System will generate report to track the overall progress of the project.

- There is high security mechanism provided by the proposed system. No unauthorized person can make change in data those are in system. Only authorized person can make changes

- In this system, all the processes are carried out by computer so it will require less time than traditional system.

- Allocate a user name and password to the every new user.

- Provide flexible operations to user.

## 2.2 Objectives Of System :

- To create and manage the project information in database.

- To create and manage the test suites.

- To create and manage the test cases in hierarchical folder for better organization.

- Track the test results (Pass, Fail and Untested).

- To create and manage bugs and defects effectively.

- To notify developer about the bugs and defects in their code.

- To generate different reports which help to track the progress and quality of the test project.

- To improve the quality of products/projects in the organization by executing proper processes of testing.

## 2.3 User Requirement :

- The application should provide a user friendly environment.

- The application should be easily understandable and reliable.

- The application should fulfill all essential facilities.

- The software being built must provide platform independent application.

- Search can be done very easily.

- Results should be generated quickly.

- The system provides useful information any time.

# 3.1 Object Diagram :
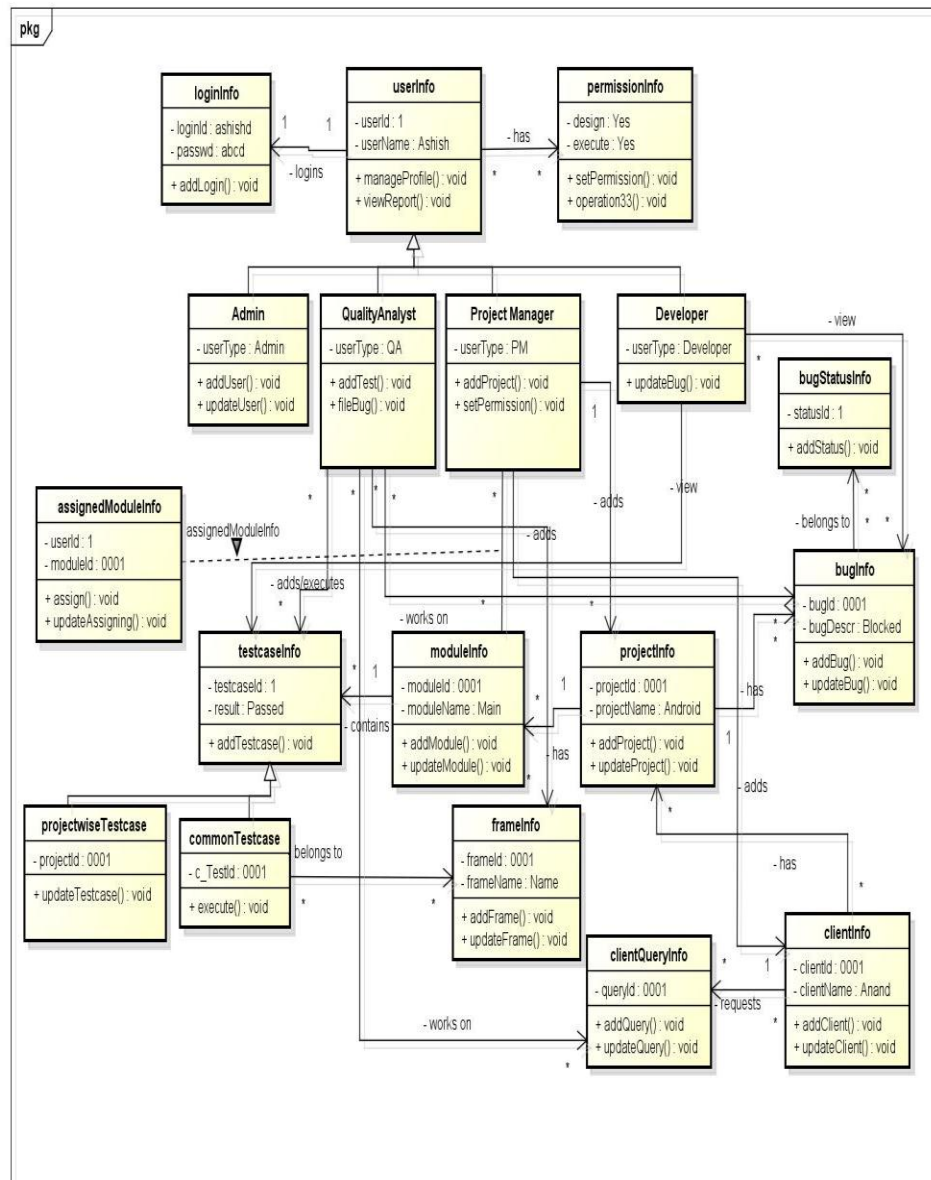
## 3.2 Class Diagram :
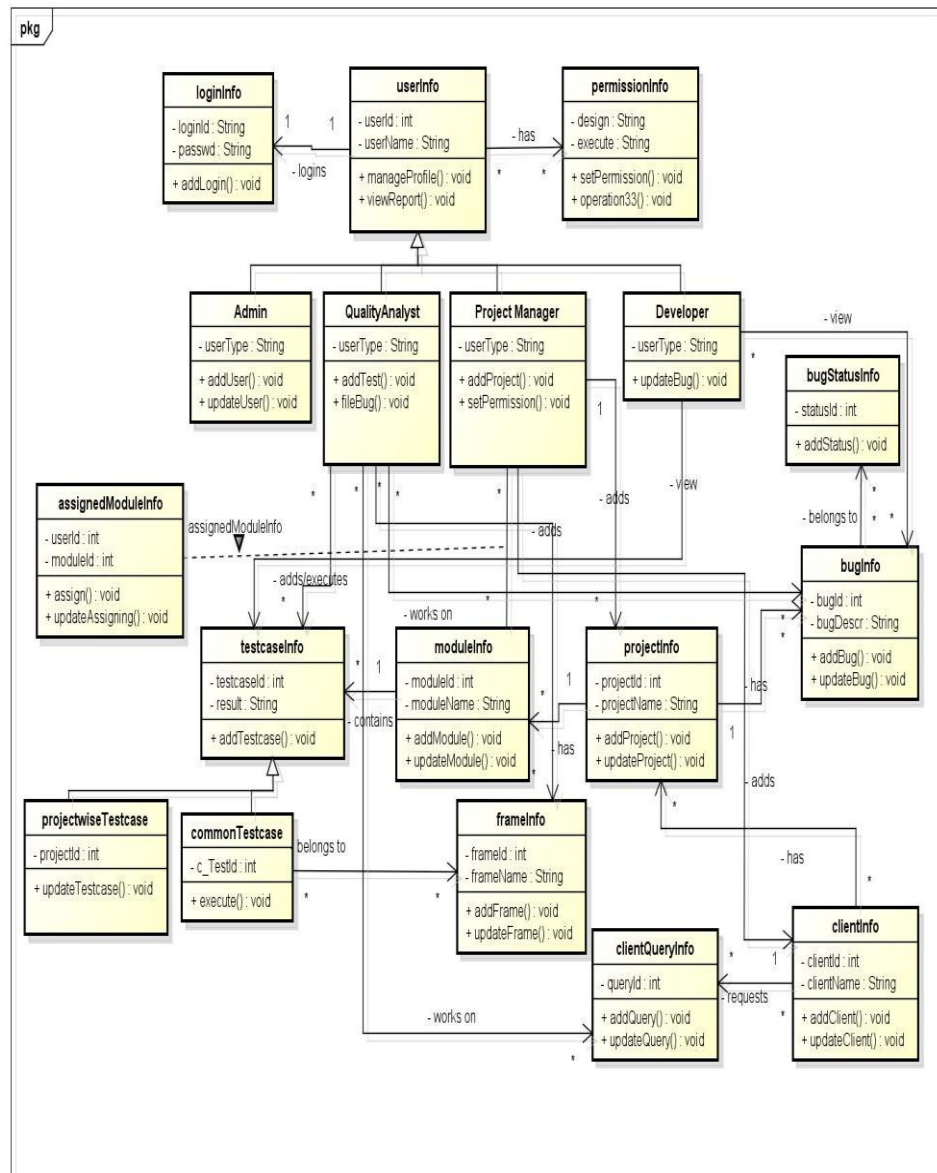
## 3.3 Use Case Diagram :

## -Business Use Case
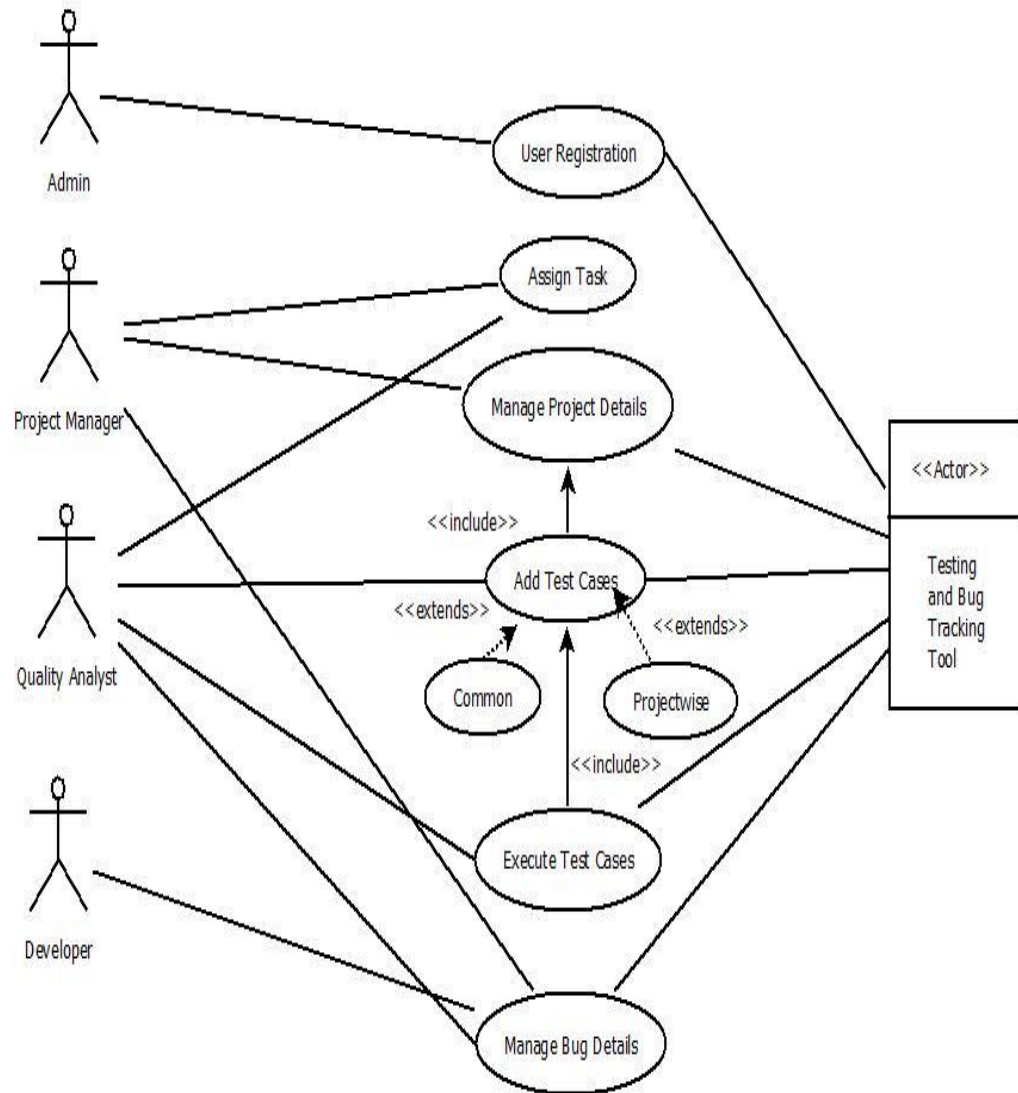
## -Admin Use Case
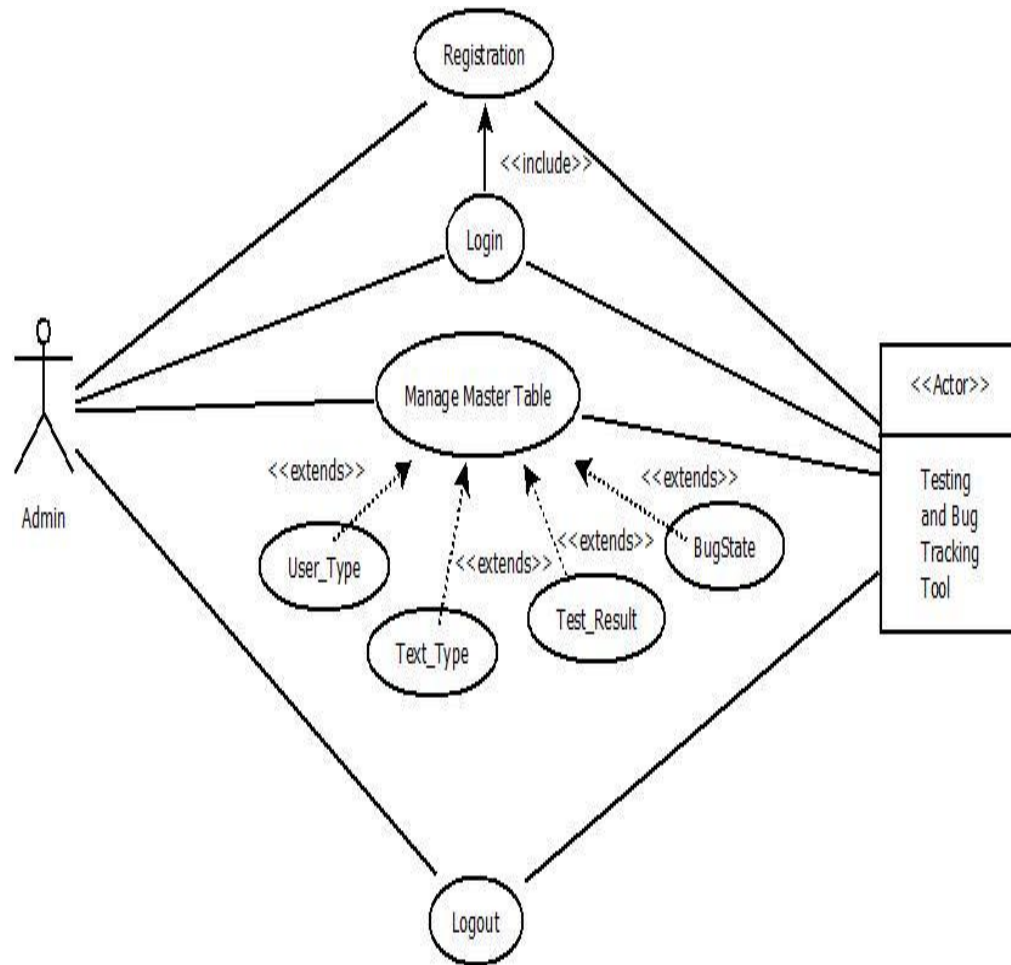
## -Project Manager Use Case
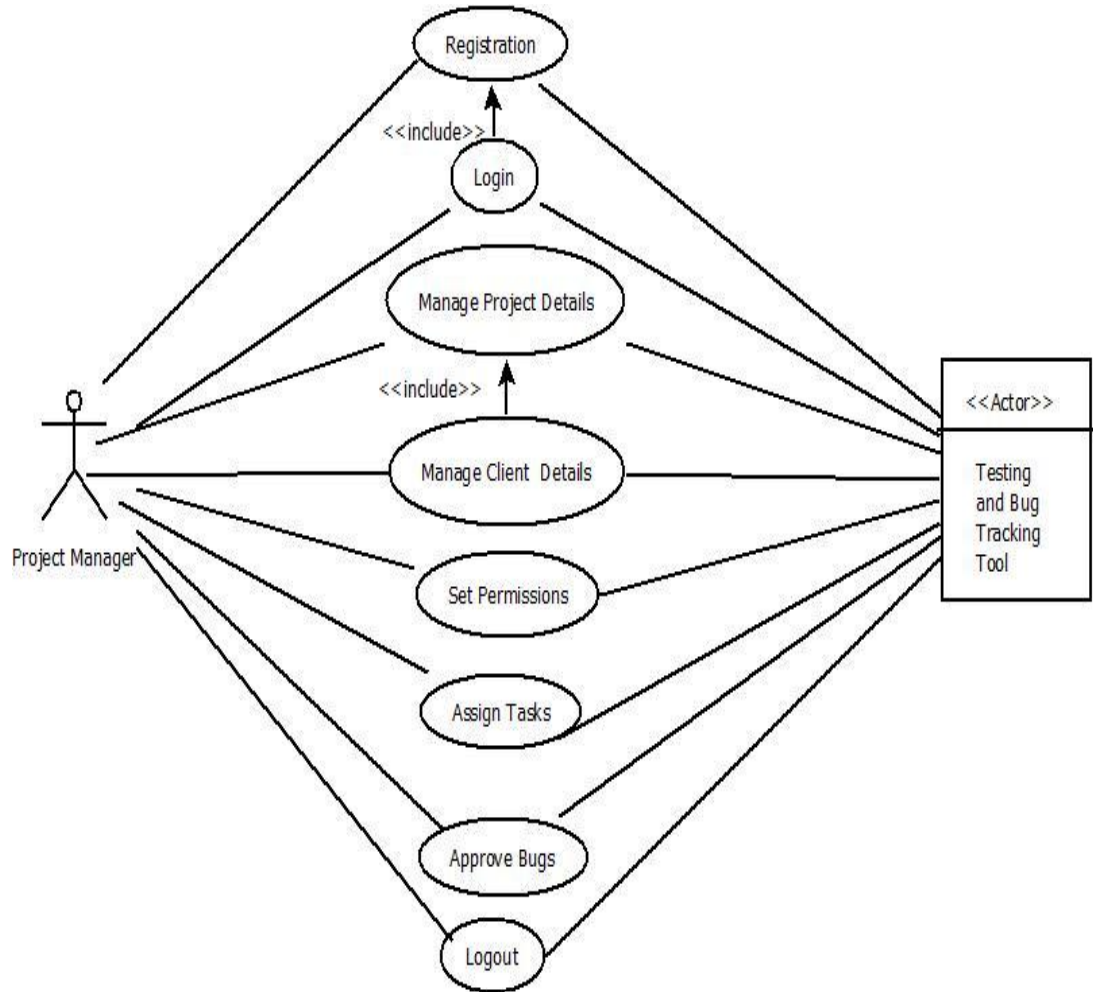
## -Quality Analyst Use Case.
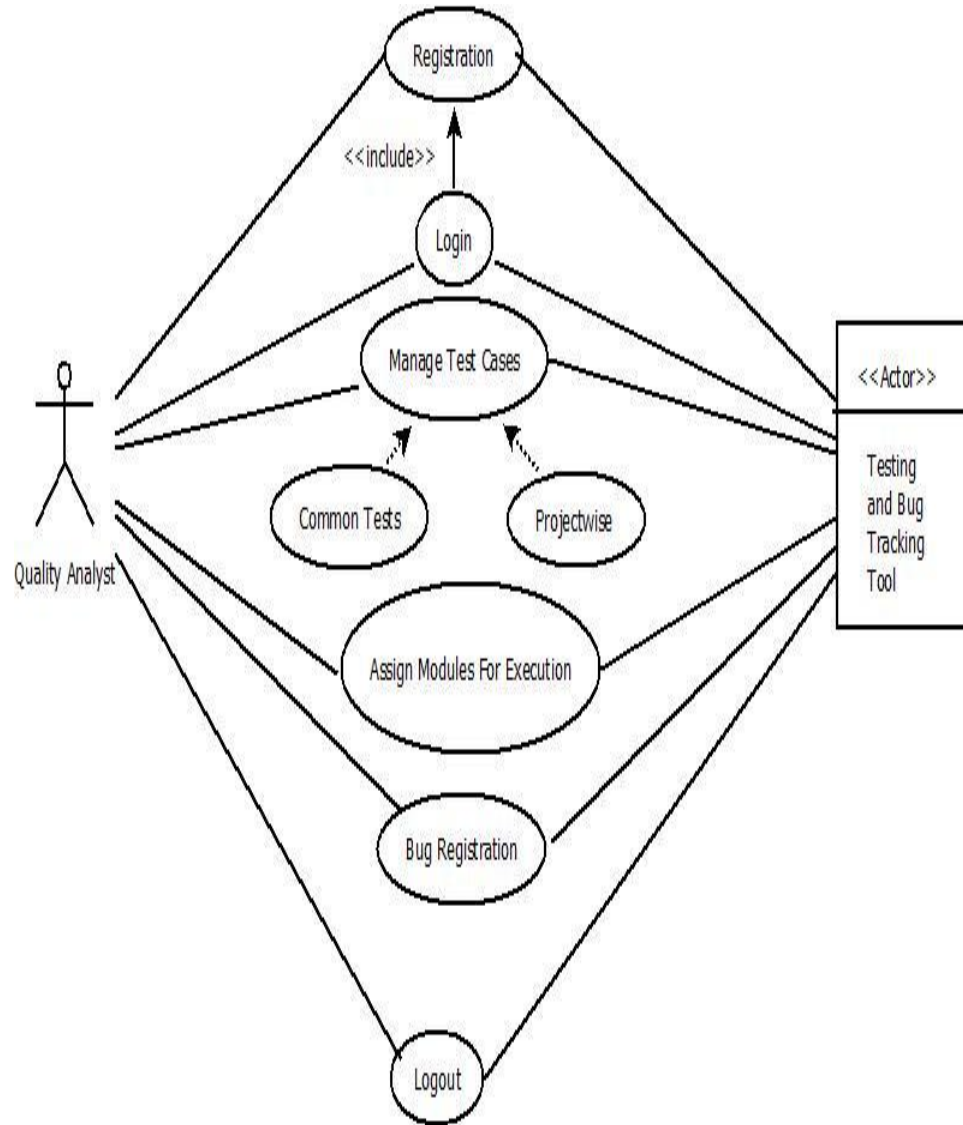
## -Developer Use Case.
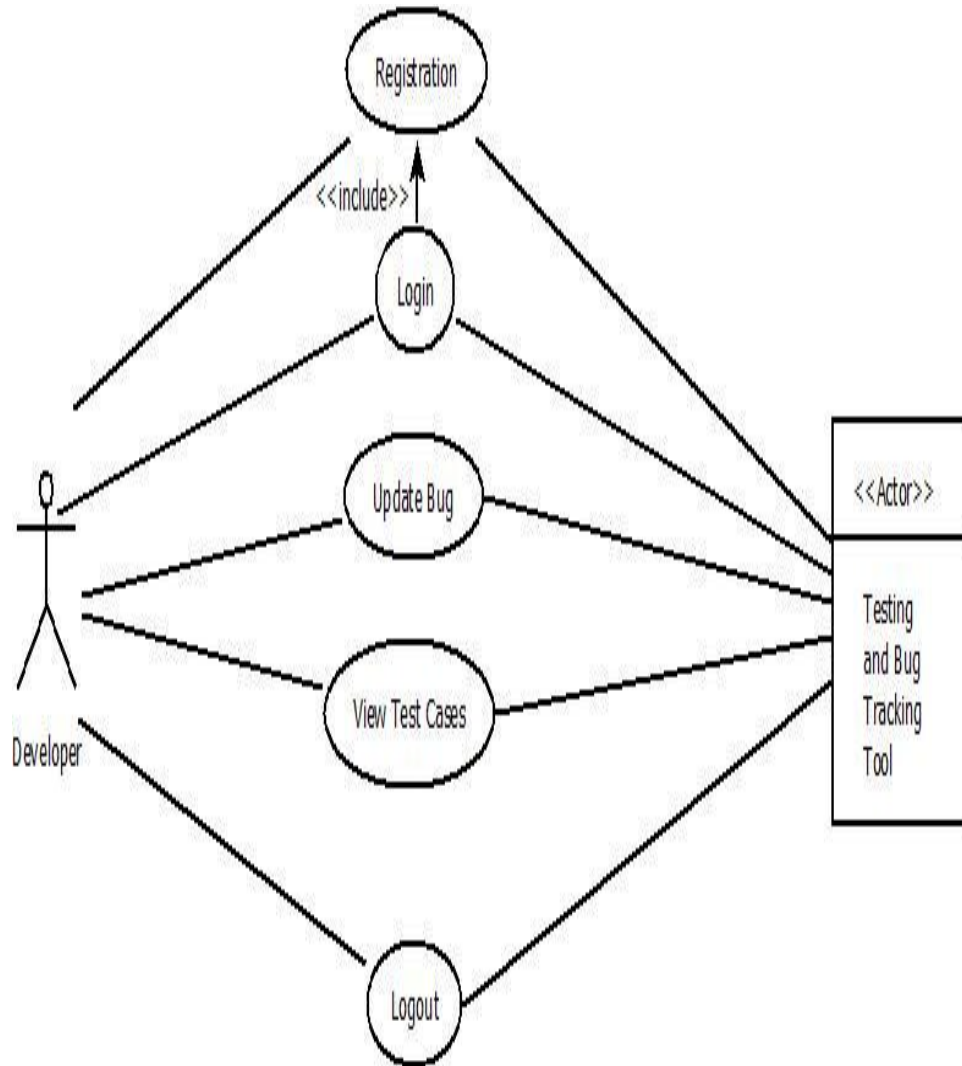
## 3.4 Activity Diagram.

## -Admin Activity
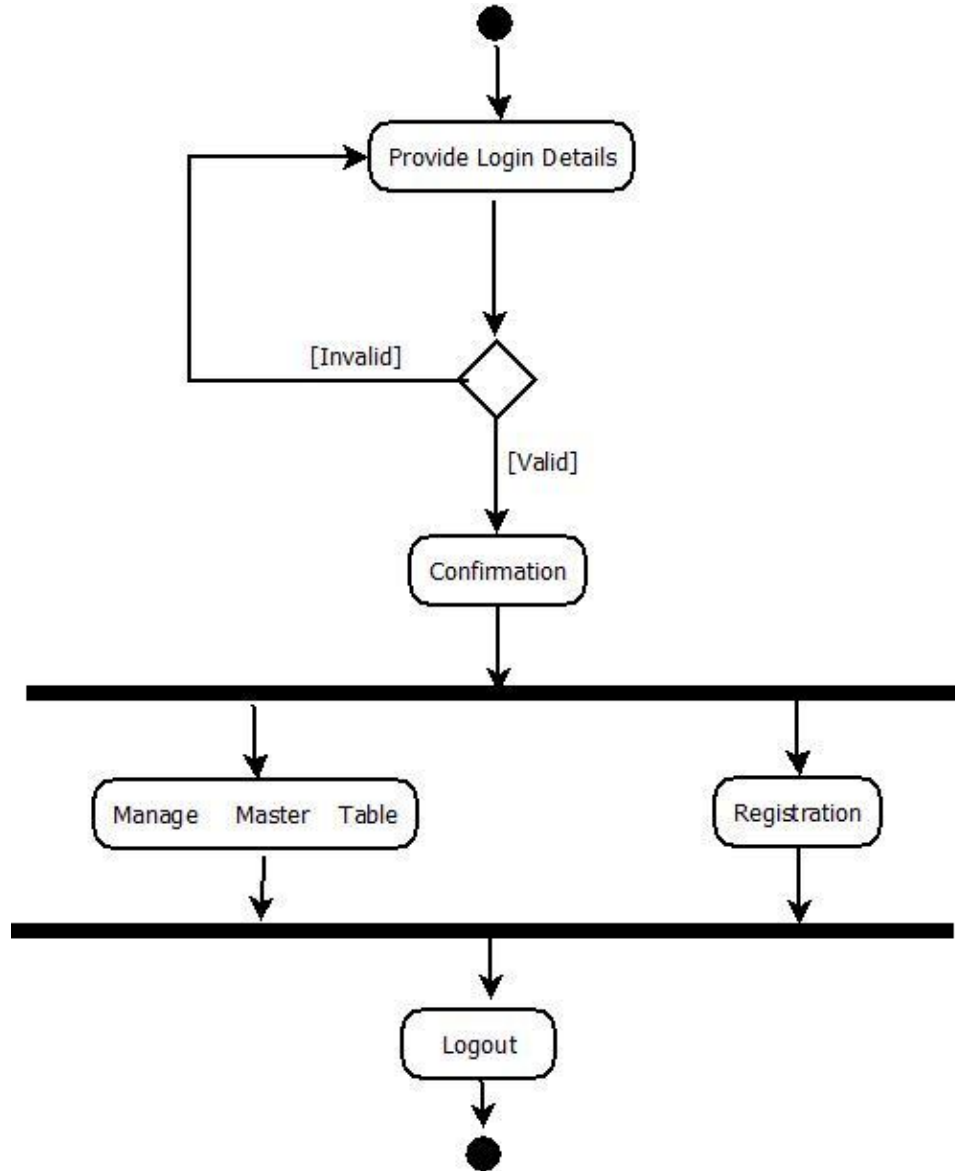
## -Project Manager Activity

Provide Login Details

[Invalid]

[Valid]

Confirmation

Manage Project Details | Manage Client Details | Set Permission | Assign Task | Approve Bug

Logout
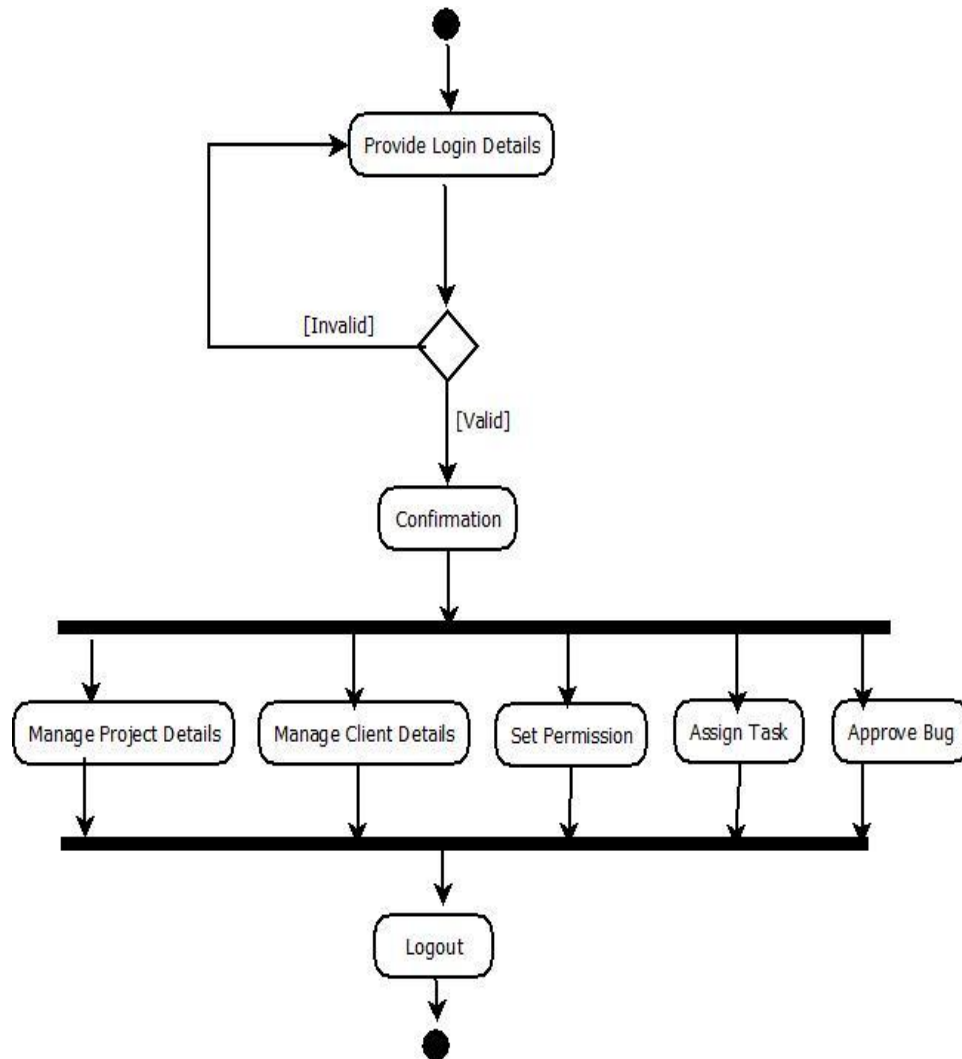
## -Quality Analyst Activity.
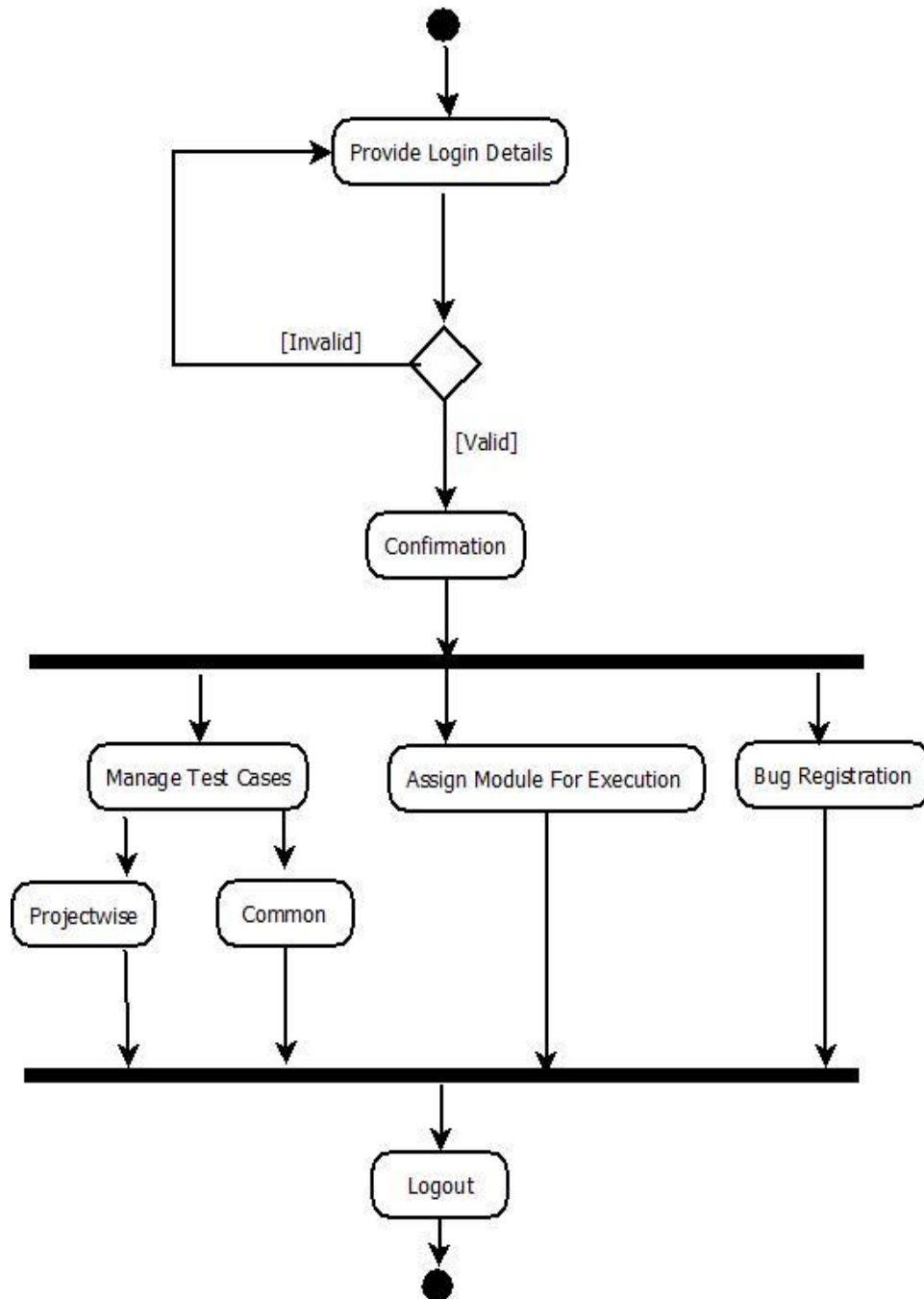
## -Developer Activity.
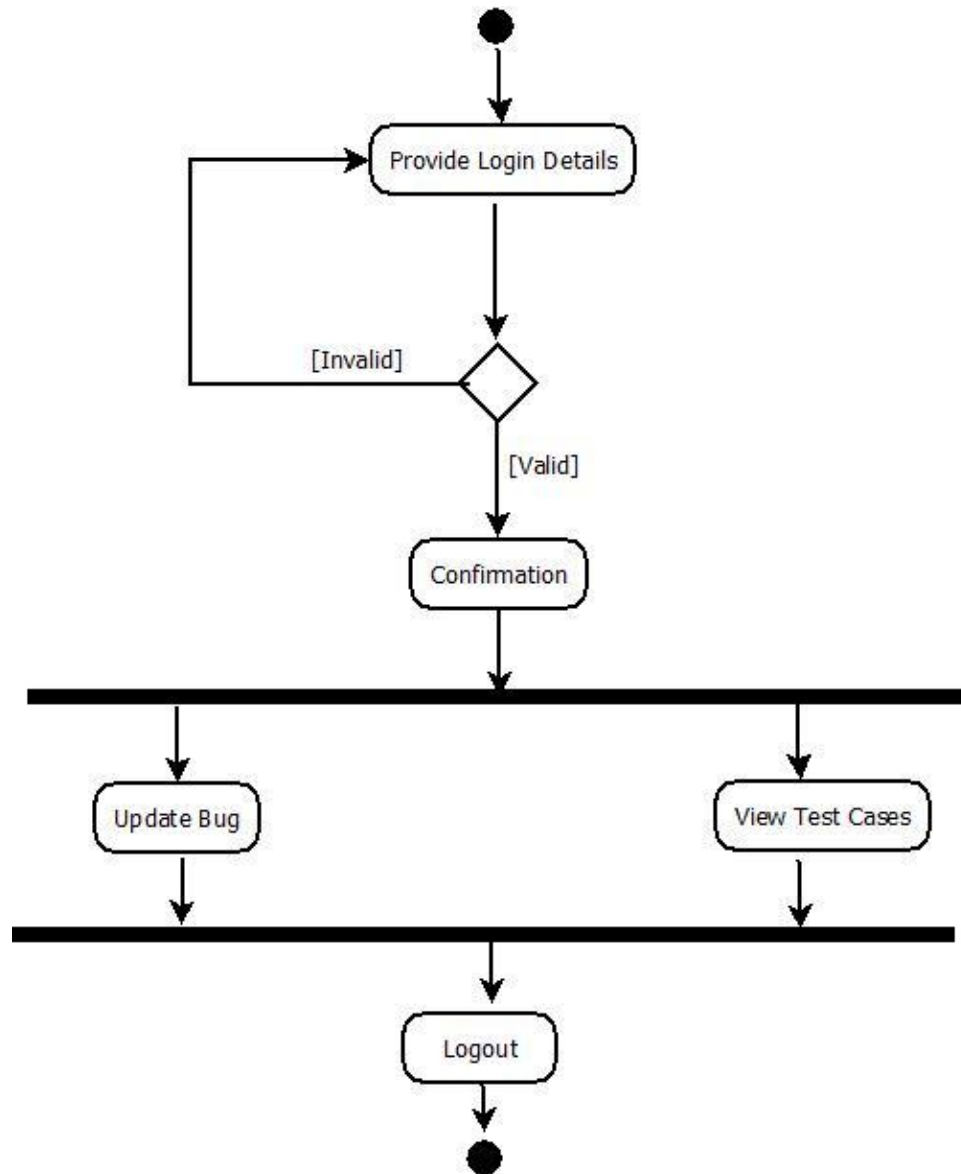
## 3.5 Sequence Diagram :

## -Project and Client Sequence.
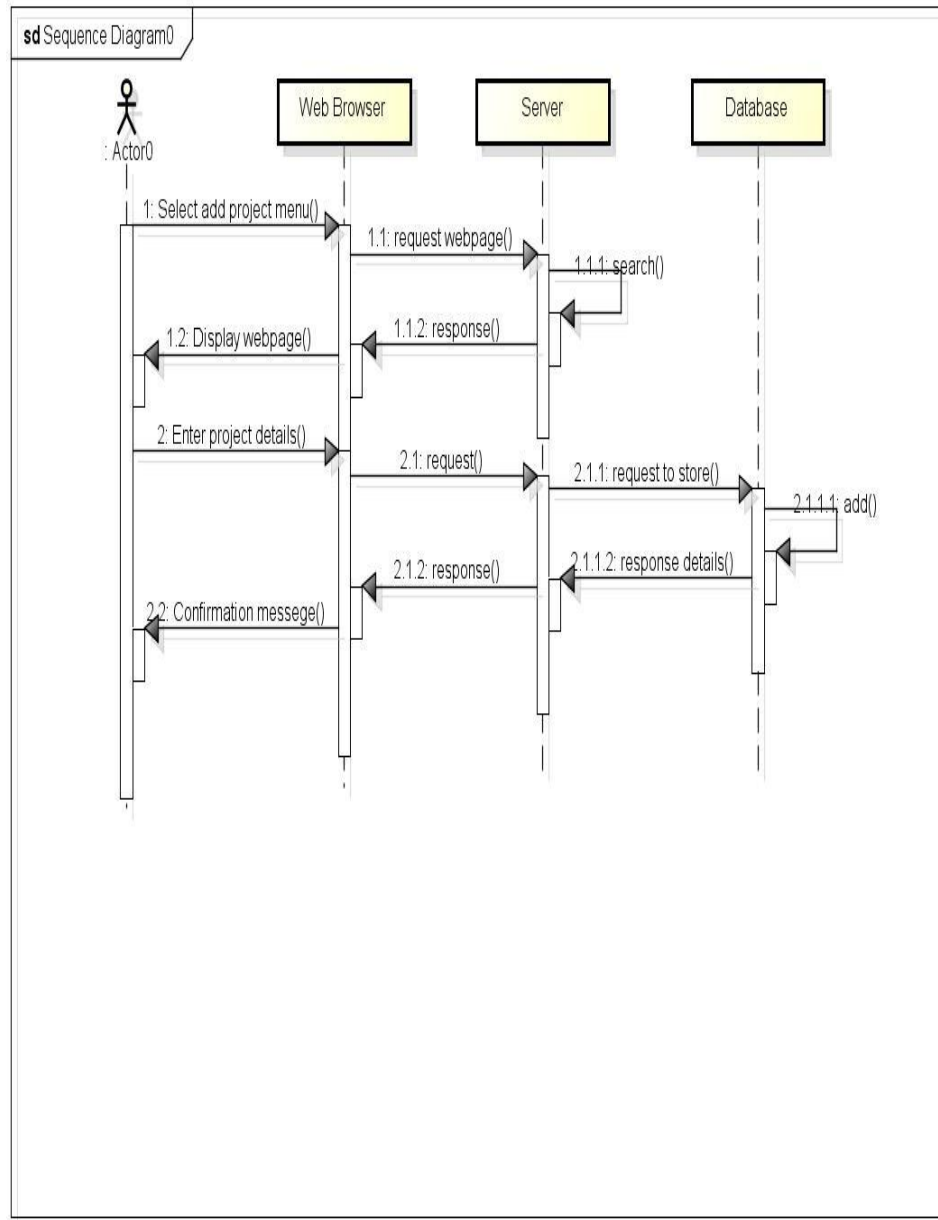
## -Manage Test case Sequence :
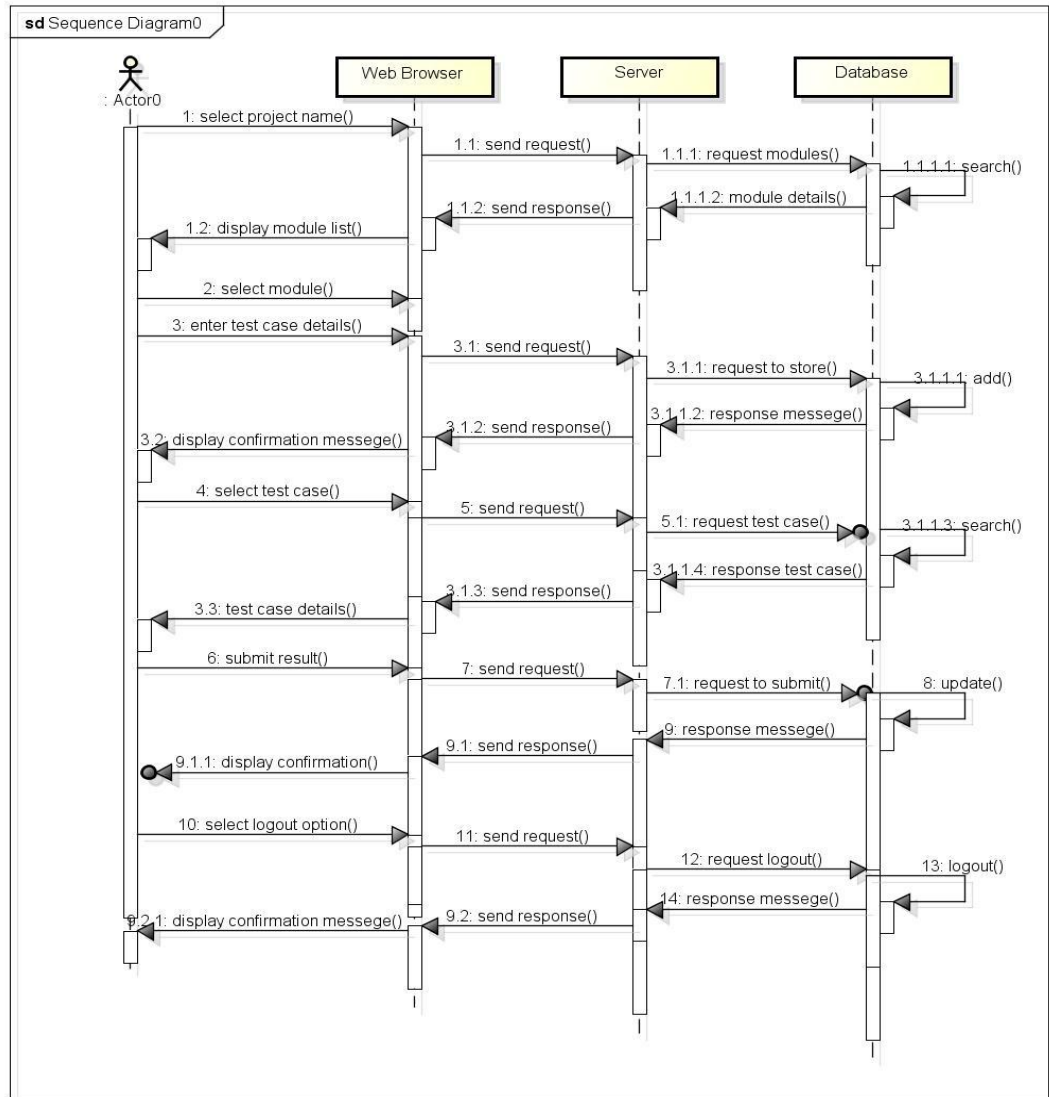
# -Bug Sequence.

## -Login Sequence



**sd** Sequence Diagram0

Actors/objects: : Actor0, Web Browser, Server, Database

1: Select user type()
2: Eneter login details()
2.1: send request()
2.1.1: request login details()
2.1.1.1: search()
2.1.1.2: login details()
2.1.2: response()
2.2: Confirmation()
3: Select logout option()
4: send request()
4.1: request logout()
4.1.1: logout()
4.1.2: logout details()
4.2: response()
5: Confirmation()

36
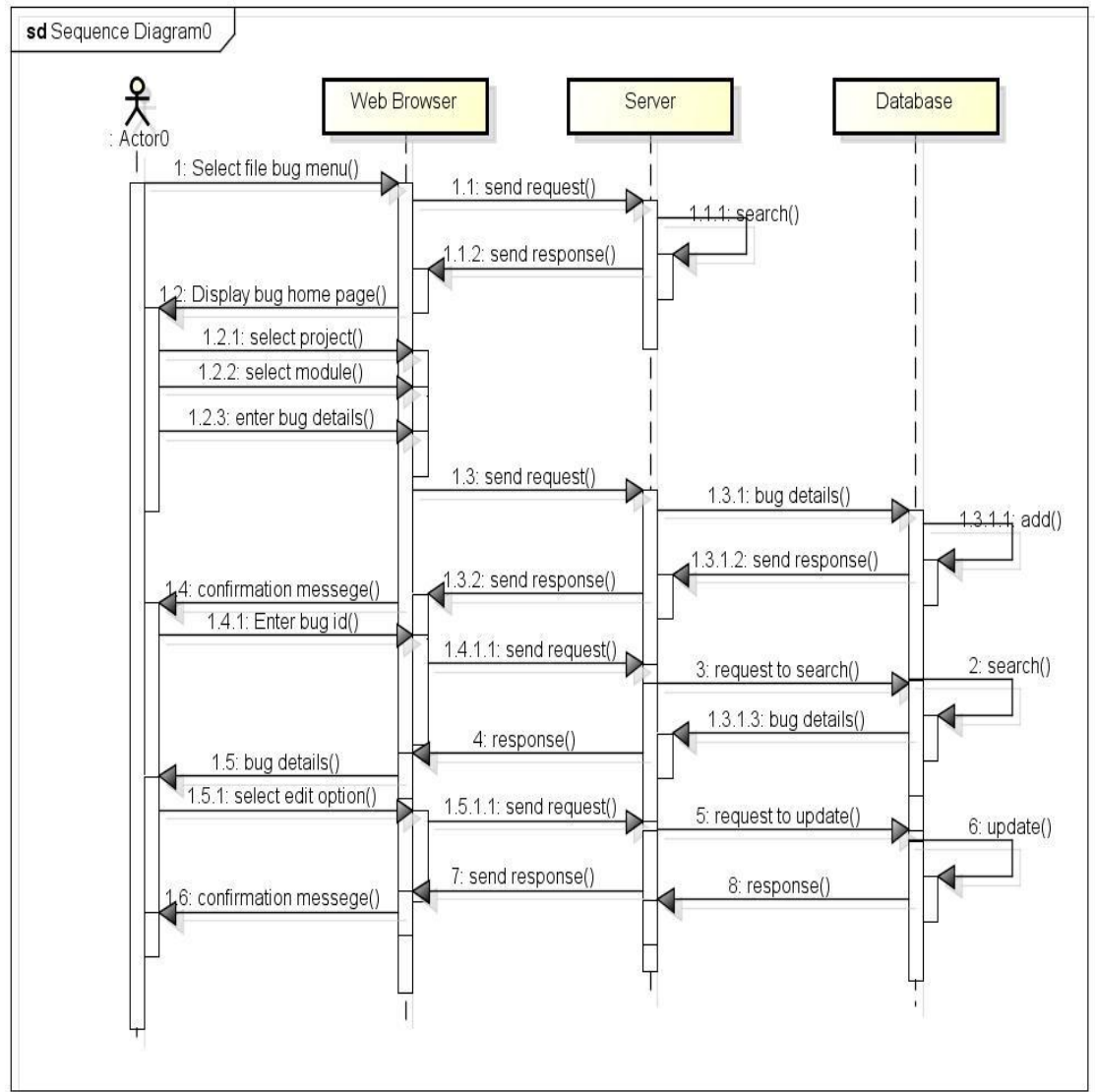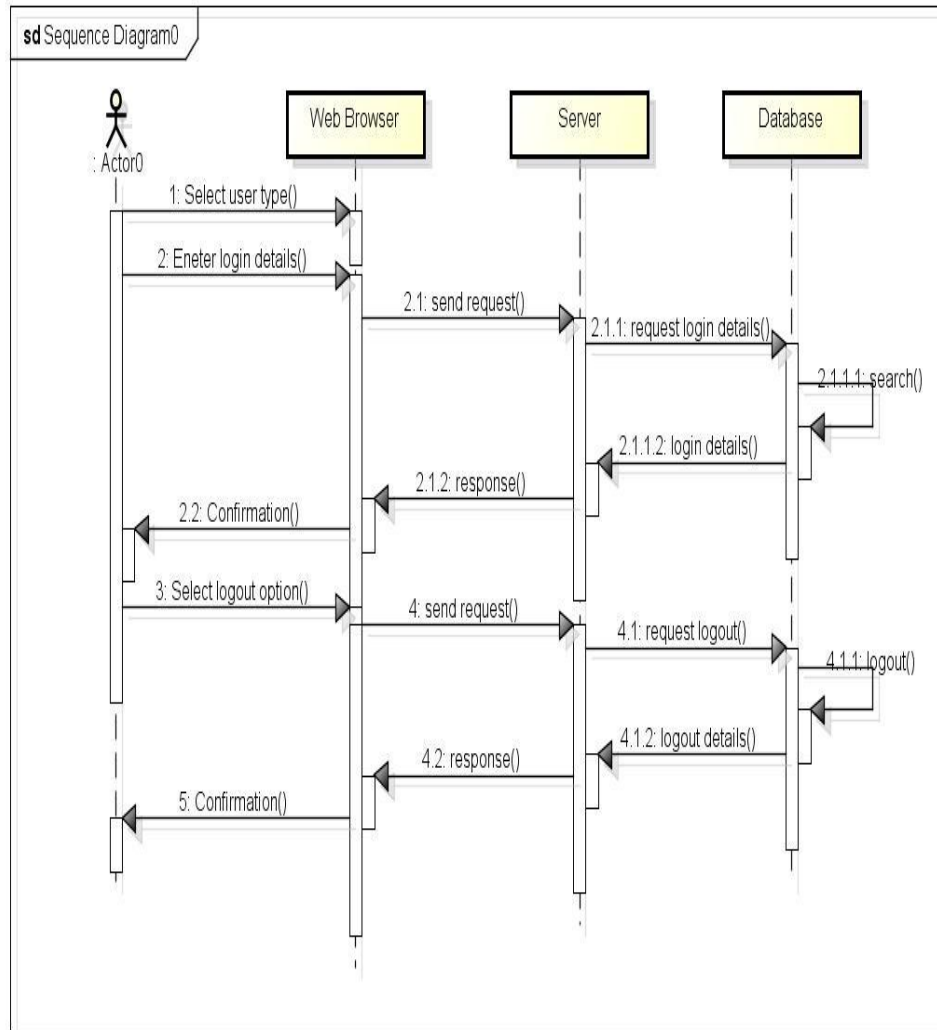
## 3.6  Entity Relationship Diagram :
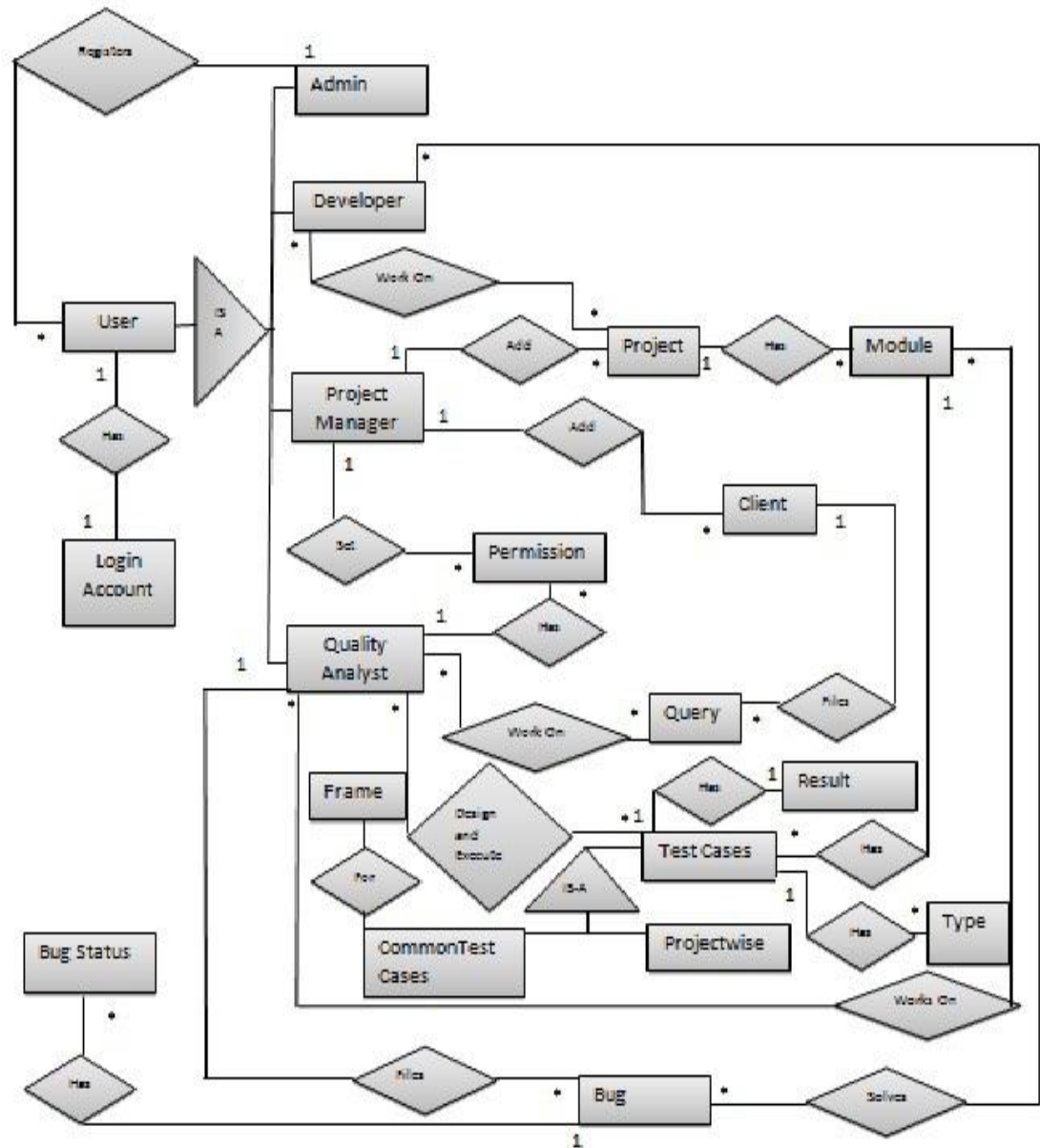
## 3.7 Module Hierarchy Diagram :
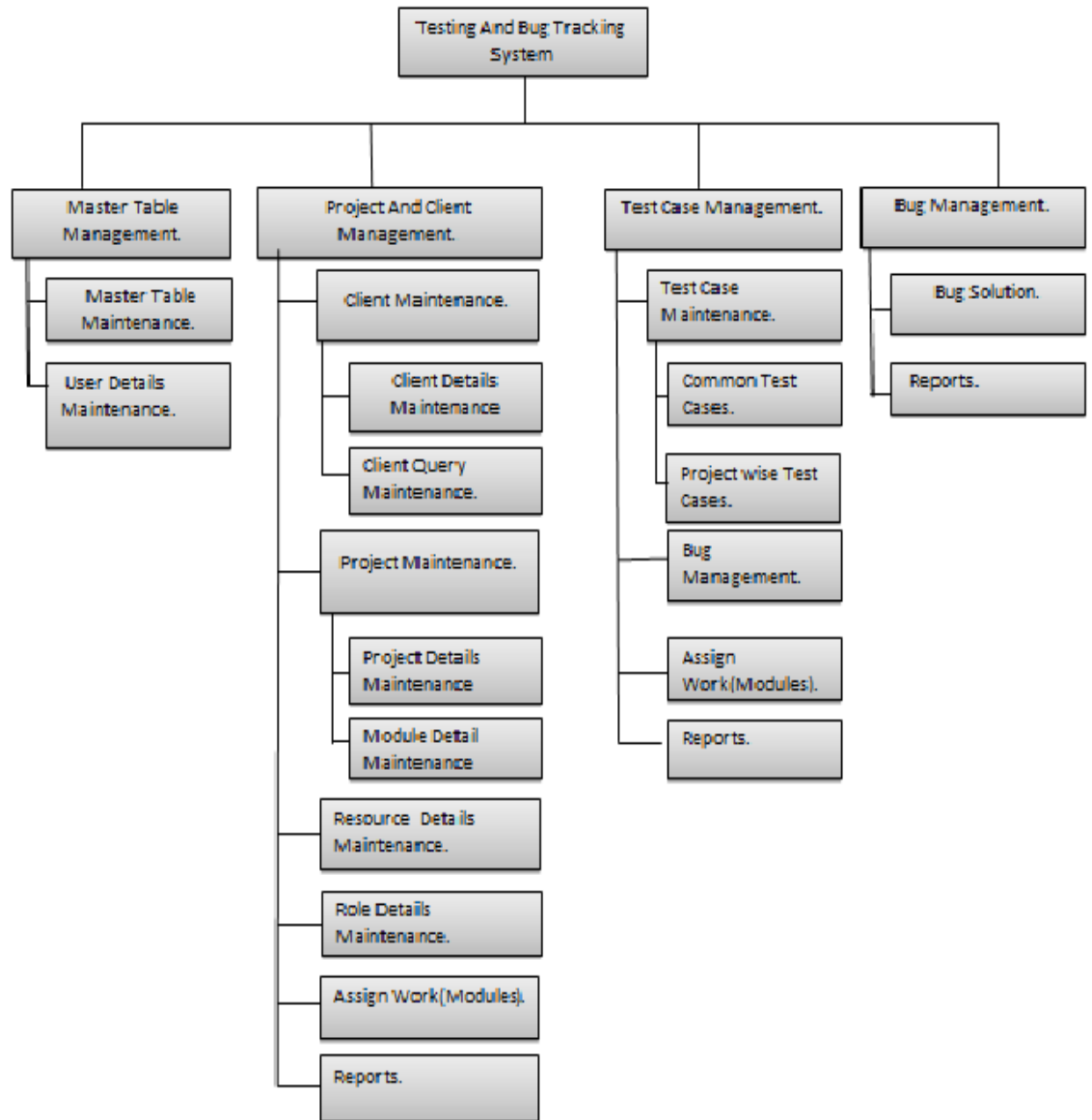
## 3.8 Component Diagram :
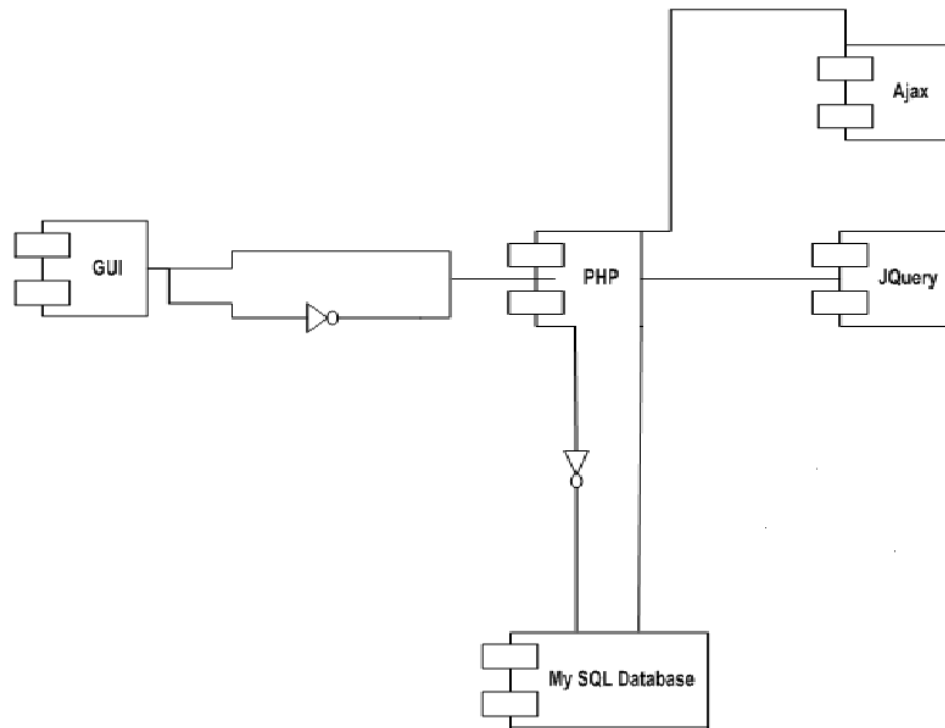
## 3.9 Deployment Diagram :
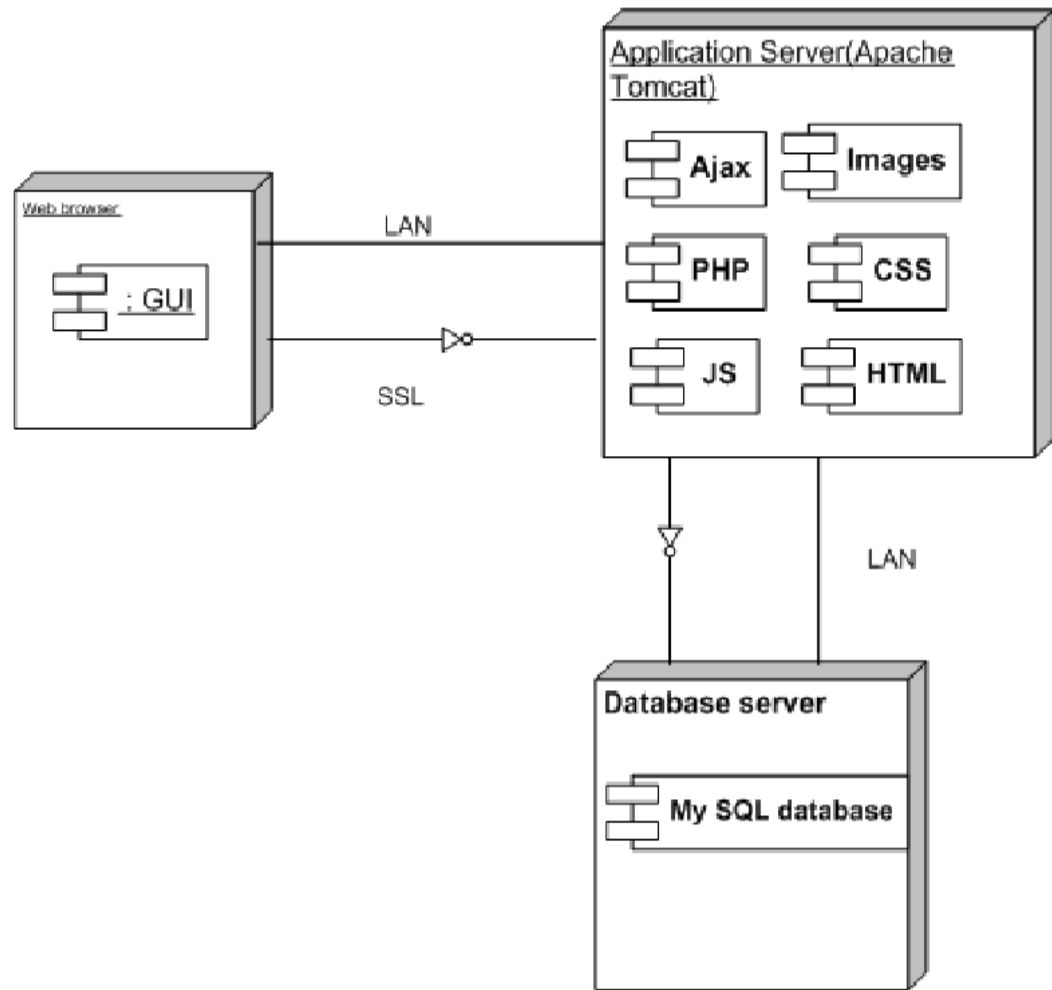
### 3.10 Module Specification:

1. Master Details Management:-

   User of this module is Admin. There are multiple admin for the system.

This module is used to,

   -create master tables

   -create user accounts

   -maintain the personal details of users.

2. Project and Client Management:-

   This module is used by project manager. There are multiple project managers. Manager maintains project information with all the sub-module information.

   This module also used to store the client details. Also when client request some queries to manager, manager can maintain this request. Also he can assign these queries to QA and Developers.

Manager can assign particular project modules to QA and Developers.

When any bug is filed by QA, it should be approved by the manager. This system provide such function to approve bugs and assign the particular bug to the developer.

## 3. Test case Management Module:-

User of this module is Quality Analyst.

Following tasks can be perform by QA.

-Design new test cases.

-Execute test cases.

-Assign module to junior QA.

-Can view the reports.

## 4. Bug Solution System:-

QA and Developer simultaneously work on this module.

When QA find any bug in the system he can file a bug, initially that bug is unapproved. This is approved by Project Manager. And after assigning that bug to developer, developer works on that bug and update the status of bug.

## 3.11 Website Map Design:



Website Map
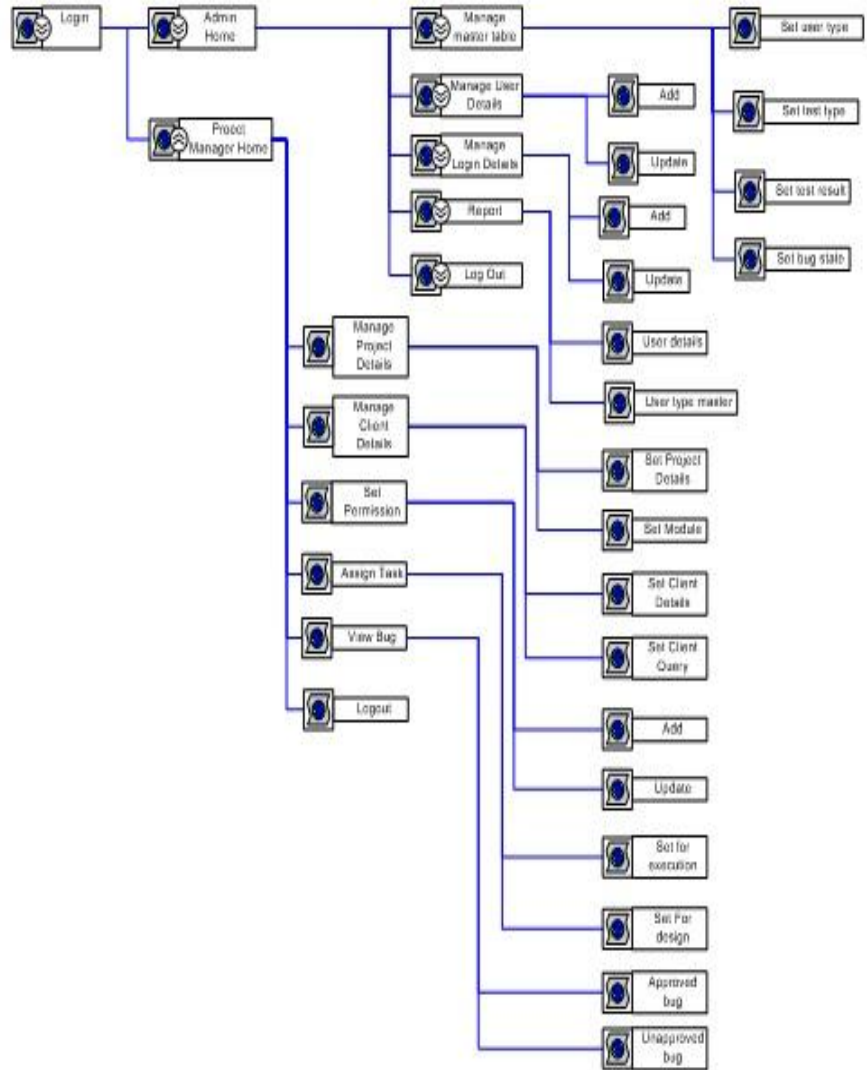
# Website Map
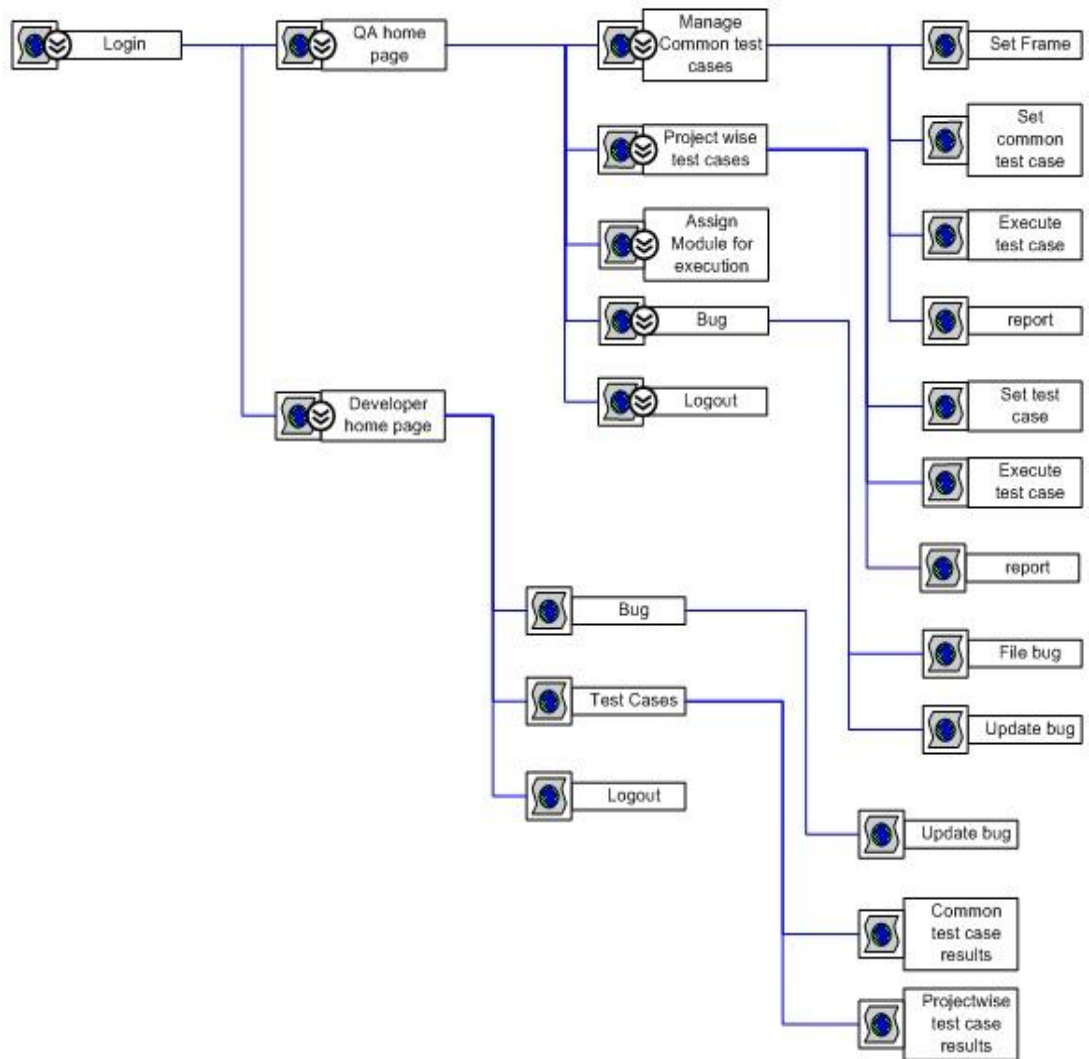
## 3.12 User Interface Design :

## -Add User Details.

### -Add User Type

# Testing & Bug Tracking System

Home

User Type Master

Welcome:-ashishd

**User Type Id**

**User Type**

**Desciption**

**Last Updated By**

Submit    Reset

**-Add Project Details.**

**-Add Client Details.**

Testing & Bug Tracking System

Home

Client Details

Welcome:-surajs

Client Id

Client Name

Client Address

Contact Number

Client Email

Client Website

Project Id

Submit   Reset

## -Add Permissions.

## -Assign Module For Design.

**-Add Frame Details.**

Testing & Bug Tracking System

Home

Add Frame

Welcome:-rhishikesht

Frame Id

Frame Name

Frame
Description

Added By

Submit Reset

## -Add Common Testcases.

## -Add Projectwise Testcases.

## -File Bug.