PROJECT REPORT
ON

ONLINE UTKAL GRAMYA BANK
FOR
UNICUS INTERNET SOLUTIONS LLP.

BY
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(IMCC), PUNE-411029
2012-2013

CERTIFICATE

This is to certify that **Rajnish Kumar** has completed the project work entitled "**Online Utkal Gramya Bank**" under my guidance. This report is submitted in partial fulfillment of M.C.A. Syllabus for the Academic Year 2012-2013 as per the rules & prescribed guidelines of University of Pune.

His work is found to be satisfactory and completed in all respects.

Mrs. Ashwini Patil
(Internal Project Guide)

Acknowledgement

I hereby take this opportunity to express my gratitude to all the people who have influenced the making of this “Online Utkal Gramya Bank for Unicus Internet Solution LLP” Project.

I would like to thank **Mr. Sushant M**. and **Mr. Sumit Derbeshwar**, whose valuable guidance made this project a success. I also thank to entire team involved in this project for their support and guidance at every stage of this project.

I would like to thank **Dr. V. H. Inamdar (Director, IMCC)** and **Dr.Santosh Deshpande (HOD, IMCC)** for their support in my years in IMCC.

Last but not the least, I would like to express my sincere thanks to **Mrs. Ashwini Patil (Internal Guide, IMCC)**, who has given me excellent technical and moral support during my project period. Also, I would like to thank all the teachers in IMCC for their precious guidance and support throughout my post graduation period.

Rajnish Kumar

M.C.A (2010-2013)

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1
Introduction

1.1 Company Profile

UNICUS was started in 23rd Feb 2011 by entrepreneurial spirited professionals with a vision to provide cheap and best hosting from various countries like Germany, Netherlands, UK, USA and India. Very soon the hosting base was extended and today we are very well equipped with software professionals provide a quality and secure web services and enterprise software solutions.

Unicus offers you variety of web services the best experience with a custom web & graphic design that is possible. We can offer you high-end static websites, content management driven websites, dynamic and database driven websites, brochures, banner advertisements, signs, print ads, business cards, logo design, flash websites and we also offer photography by our in-house photographer who can come to your location to take photos of your building, staff or products.

Being a web design company spreading our wings al over the country shortly gives our company the advantage when working with local companies since we are able to come to your location to

collect all of the content (text & images) that needs to be placed within your new website design.

Vision

"We want to be a globally recognized organization."

Mission

"To achieve our objectives with clarity, honesty, and courtesy towards our clients, employees, partners & society at large."

Values

Unicus has a set of Core Values that establish what it means to conduct business appropriately.

* No compromise to quality- We apply our passion, intelligence and skills in meeting our customers needs.

1.2 Existing and need for System

Existing System:

Bolangir Anchalik Gramya Bank (BAGB), Kalahandi Anchalik Gramya Bank (KAGB) and Koraput Panchabati Gramya Bank (KPGB) sponsored by State Bank of India combine into a single Regional Rural Bank named " Utkal Gramya Bank" (UGB) which came into existence with effect from 31st July 2006 with its Head Office at Bolangir.

Now Utkal Gramya Bank use the Standalone or Manual System for doing the Banking Activity. This manual system provides the facility of deposit money, withdrawal of money, issuing cheque, making Demand Draft, deposit of cheque into the account or money transfer from one account to another account with in same bank. All the Banking activities done manually by customers and Bank staffs. From opening of Account to all other process Customer must visit the bank. Bank Staff also do all the transaction manually.

Utkal Gramya Bank Use the Standalone System for banking activities. The working Staffs Use Computer System which is integrated with the standalone banking software for banking transaction. Banking transaction like opening account, update balance after deposit money and withdrawal of money, demand draft transaction, cheque book transaction etc. all these transaction are done with the help of standalone banking software. The Interbank transfer, third-party transfer does not supported by the existing system, only update the account balance after deposit or withdrawal of money is possible.

Need for System:

1. To overcome from the drawback of standalone system the online Net-Banking site is developed.
2. This system integrates all the branches of Utkal Gramya Bank and allows Fund Transfer between the branches.
3. This system provide a consistent user friendly GUI to user.
4. To provide security up to high level at time of fund transaction.
5. The Inter Bank transfer as well as Third-Party Fund transfer also done by this System.
6. The Online utility bill payment is done by this system.
7. This system is integrated with the various shopping site for payment after shopping.
8. The Customer can print the Account Statement whit the help of this System.

9. Customer can request for new account and Cheque book online by this system.
10. Customer need not have to visit the branch for all banking activities.

1.3 Scope of Work

- Registration
  - Download Registration Form
    - ✓ User can download registration form from Internet Banking website.
    - ✓ User Fill required details and Submit the Registration form in Bank.
    - ✓ Verification of Registration details by Bank Administrator.
  - Receive User ID and Password
    - ✓ User Receive unique User ID, Login Password, Profile Password and High Security Password from Bank.
- Statement Enquiry
  - View Account Summary
    - ✓ User can login into the system by providing correct User ID and login password.

- ✓ User view the account balance as well as last 10 transaction details.

- View Account Statement by specific range of dates
  - ✓ User can login into the system by providing correct User ID and login password.
  - ✓ User provides start date, end date and view the transaction details within provided date.
- Take a Printout of the Account Statement
  - ✓ User can take a printout of the account statement.

- Profile Maintenance
  - Update Personal Details
    - ✓ User can edit the display name.
    - ✓ User can update mobile number.
    - ✓ User can update e-mail address.
  - Manipulate Beneficiary Account Details
    - ✓ User can add Third-party Beneficiary, Inter-Bank Beneficiary and UGB Group Beneficiary accounts.

- ✓ Users can Modify Beneficiary account details such as name and transaction limit.
- ✓ User can view all the added Beneficiary account.
- ✓ User can delete selected Beneficiary account.

- Update Password
  - ✓ User can change login password, profile password and high security password.
- Set Account Nick Name
  - ✓ User can change the nickname of registered and RD account.

- Fund transfer
  - Fund Transfer within own account in same branch
    - ✓ User can transfer fund to his own account within same branch and to Recurring Deposit account.
  - Third-Party Fund Transfer
    - ✓ User can transfer fund to other account within same bank and different branch.
  - Inter-Bank Fund Transfer

- ✓ User can transfer fund to other bank account.
- ✓ User use NEFT and RTGS fund transfer for Inter-bank transfer.

- UGB Group Fund Transfer
  - ✓ User can Transfer fund to Utkal Gramya Bank Group (KAGB, KPGB) Bank account.

- Utility Bill Payment
  - Manage Biller Details
    - ✓ Users add nationalized biller in his account.
    - ✓ User updates the added biller details.
    - ✓ User can view all the added biller.
    - ✓ User can delete the selected biller.
  - Register Biller
    - ✓ Bank Administrator approves the biller.
    - ✓ User can pay the bill of registered biller.
  - Payment of Utility Bill
    - ✓ User can pay the Utility bill of registered biller any time online.

- Online Shopping
  - Make Payment of Online Shopped Item
    - ✓ User visits the Shopping site and add item to shopping cart.
    - ✓ User makes payment of shopped item online.
- Request
  - Online New Account Creation
    - ✓ User can create Recurring deposit account online.
    - ✓ User can make a request for new account creation Saving account, Current account and Fixed deposit account.
  - Online Cheque Book Request
    - ✓ User can make request for cheque book online by specifying the cheque details.

1.4 Operating Environment (Hardware and Software Requirement)

Hardware Specification:

PROCESSOR: Intel Pentium 4 @ 1.73 GHz

RAM: 512 MB

MEMORY: 40 GB

PRINTER: Black and white Desk Jet Printer

Software Specification:

OPERATING SYSTEM : Windows XP/Windows vista/Windows 7

FRONT END : PHP, HTML, JAVA SCRIPT

BACK END : MySQL

BROWSER : Google Chrome/Internet Explorer/Mozilla Firefox

SERVER : Wamp Server

1.5 Detail description of technology

PHP

Originally meaning Personal Home Page, PHP stands for Hypertext Pre-processor was created by Rasmus Lerdorf in 1994 and has evolved into an open source server-side scripting language that is specially designed for web development and can either be written as entirely PHP files or embedded into XHTML documents. Since the release of PHP 5.0 on 13th July 2004, PHP can now be used as an Object Oriented language consisting of formally defined classes, much like Java, and can be used to generate different HTML code dependant on certain criteria, allowing for dynamic but not real-time web pages, something which would be much more difficult and less elegant using Java.

PHP is said to be the fifth most popular programming language. One of the reasons PHP is so popular is that it is relatively easy to learn, requiring no previous programming Knowledge with a large user and developer base and extensive documentation,

allowing programmers to browse function libraries and view example code, speeding up the learning process.

MySQL

MySQL is an open source relational database management system and, since it is open source, starter versions are free to use. MySQL is used in more than 10 million installations and part of its success is down to the fact that it runs on more than 20 platforms. Since MySQL is open source, some versions are free and many host providers' customers are able to request MySQL databases of their own, thus for small to medium size applications MySQL is a far more compatible, far cheaper alternative to Microsoft Access as well as being known for its reliability, ease of use and performance, traits that are not often apparent with Microsoft's offering.

MySQL is even a competitor to Microsoft's SQL Server and Oracle, offering tens of thousands of dollars in savings over the

competition. MySQL is one of the many variants of database management systems that are based on the SQL (Structured Query Language) database query language. SQL was developed in the 1970s by IBM and it is an ANSI/ISO standard for creating, modifying and retrieving data. PHP and MySQL are a combination used by many because PHP has easy to use, powerful MySQL connectivity built into it and can perform queries quickly.

2
ProPosed system

2.1 Proposed System

The Internet Banking system is a computerized system, which is integrated with the internet or World Wide Web (www). This entire project is prepared for the management of fund transaction. Having a firm grasps of the makeup of the system in property is a pre requisite for selecting the procedure or introducing this project for necessary implementations. This integrated system facilitates secured fund or money transaction over the Internet.

This Software system provides services such as:-

- Inter-Bank Fund Transfer
- Third-Party Fund Transfer
- UGB Group Fund Transfer
- Online Utility Bill payment
- Online Shopping Payment
- Online Account Statement

The Internet Banking system is application software which is made by the help of programming language. This is a small piece of software which is performs all the banking operation and also for shopping payment, bill payment and money transfer. This is an integrated system which help customer to do secure money transaction. This application software is applied through the Internet. Customer has to register manually and do their transaction by logging into this website. Making information available online and providing services on just a button click can make online banking easier and faster for its customer.

Login ID and password is given for each customer so that bank recognizes them as valid customer to get the information about particular account details. Multiple logins with same identity is not allowed.

This Internet Banking System is computerized system which is integrated with internet service. This system overcomes from the

limitation of Manual Banking System as well as currently provides Net-Banking system.

This system different from previous system in the following way-

1. To obtain the Net-Banking facility first Customer has to download registration form Online and fill the required details. Bank Administrator will verify the registration details and provide a User ID and Password in a confidential kit.
2. After receiving the username and password user change the password and User ID according to him.
3. At the time of registration customer provide all information related to his or her account such account number, account details, permanent address like all personal information. Customer must register his mobile number for SMS alert and E-Mail for Mail service.

4. This developed Net-Banking system provide services like Online shopping, Online bill payment, Fund transfer from one account to another account within same branch or different branch also, Online Cheque book request and new account request, Booking of travel ticket (airline reservation, railway reservation, hotel reservation) , Inter-Bank fund transfer and UGB group Fund transfer etc.

Feasibility Study:

The Feasibility Study is a process of evaluating the deciding factors to check whether proposed system is feasible or not.

The feasibility study is carried out in the following aspects:

1. Technical Feasibility
2. Economical Feasibility

3. Operational Feasibility

Technical Feasibility:

The technical feasibility of a system determines whether the technology needed for the proposed system is available and how this technology can be integrated into the organization. Technical evolution must also access whether the organization has the expertise to use it. This aspect is taken care by the existing hardware setup in the agency. The technical requirements for this system are PHP, HTML, WampServer, MySQL, Web browser and Windows Operating System. The Software and Hardware required for this system is easily available.

Economical Feasibility:

The economic feasibility of a system look upon the financial aspects of the project. It determines whether the investment that goes into the project is recoverable or not. The cost-benefit analysis is a commonly used method in evaluating the effectiveness of the

system. As the software and hardware required for this system is easily available. No additional cost will be incurred. The system will also reduce lots of paperwork, chances of errors and provide consistence information. Thus leading to better output and will be saving lot of money to prove its feasibility.

The technologies that will be used are open source and hence free. So, no cost in using technologies.

A cost-benefit analysis was carried under the following two heads:

Hardware Cost:

The organization already possesses the required hardware and software for the system, so no additional cost will be incurred in implementing the system.

Manpower Cost:

The proposed system is user friendly and just requires working knowledge of computer. Thus there is no requirement of qualified user. Thus no extra expenditure is required for the man power. Therefore the system is financially feasible.

Operational Feasibility:

There are two aspects of operational feasibility of a system. First is that of the technical performance and other is acceptance. The proposed system is providing a attractive user interface to the Operator / end user, so he feels very easy to work onto it. Response to operator/end user is very fast and very good. The proposed system will be operationally feasible because of system works in specific way.

2.2 Objective of System

- To make the Banking System user friendly and the Banking activities are done with high secure environment.
- To provide fund transfer from one account to another with in every Bank.
- To provide security up to high level at the time of fund transaction.
- To provide secure Bill Payment mechanism over the internet.
- To provide easy and secure online shopping payment.
- To provide online request for cheque book.
- To provide creation of new account such as Saving, Current, Fixed deposit and Recurring deposit without any hesitation.
- To provide Statement of all Transaction.
- To provide consistent user interface.

2.3 User Requirements

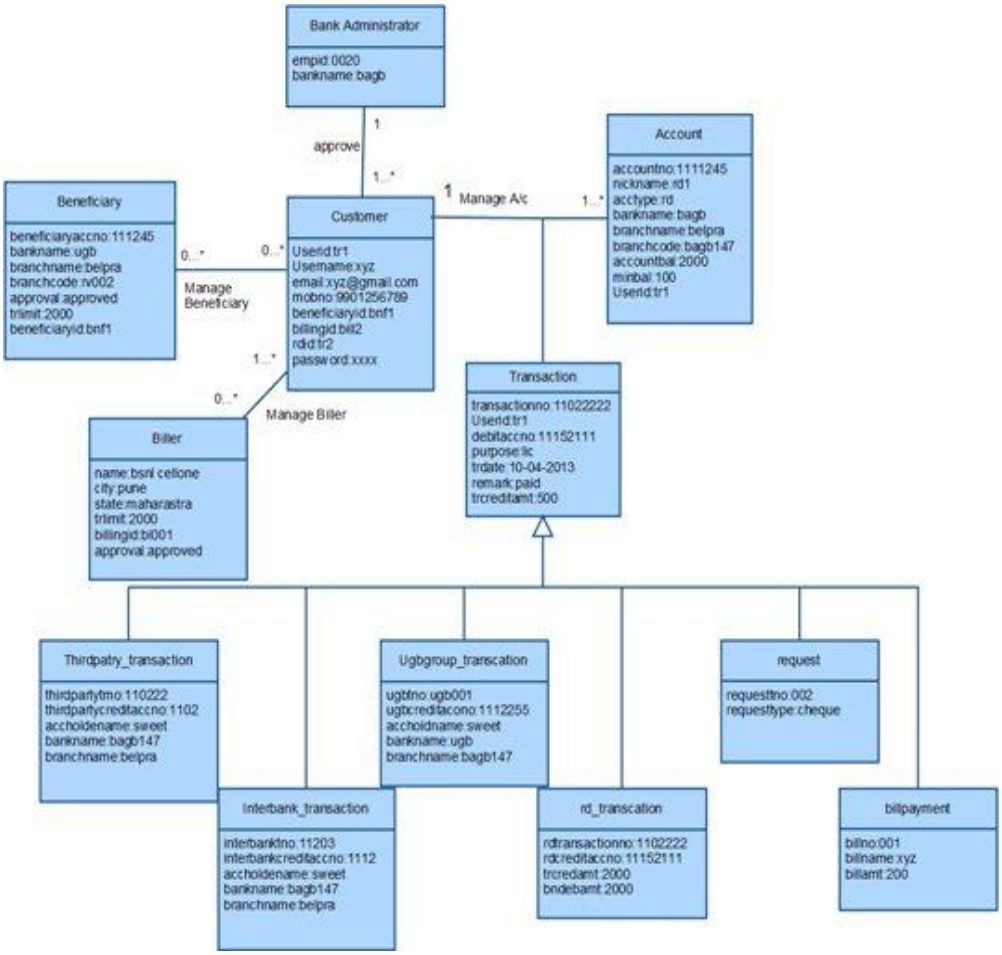
User expects the system which can help him save efforts and time that is wasted in the use of standalone system services provided at all branches of the bank.

- ✓ Fast and Easy Navigation
- ✓ High level Security
- ✓ Availability of online Registration form
- ✓ Unique User ID and Passwords
- ✓ Statement of All transaction
- ✓ Account summary
- ✓ Proper instructions for Fund Transfer
- ✓ Instructions for NEFT/RTGS Transaction Time and commission Charge
- ✓ Recent updated news
- ✓ List of registered beneficiary
- ✓ Registered beneficiary's approval details

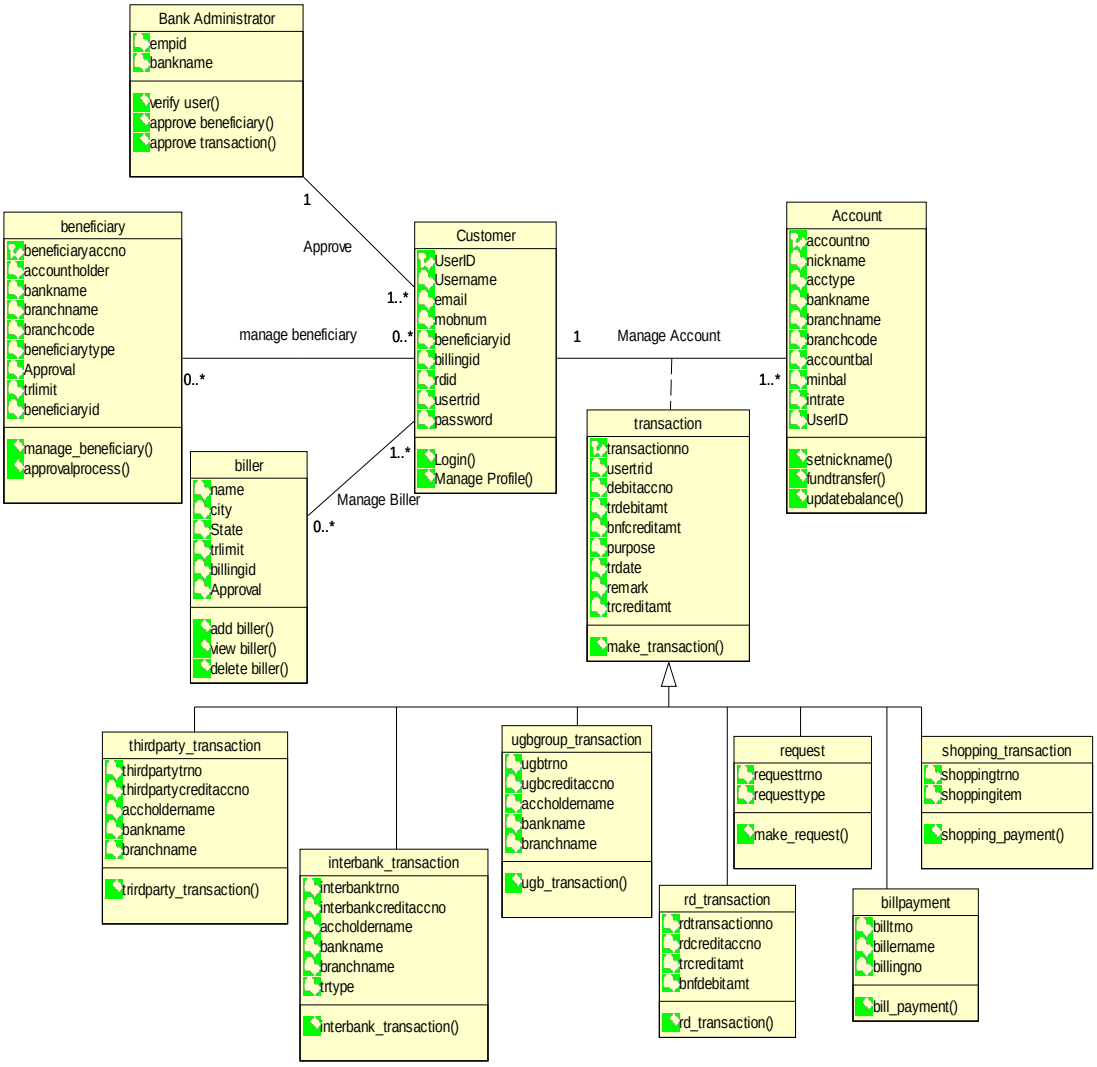
- ✓ List of Biller
- ✓ List of registered biller details
- ✓ Online secure bill payment
- ✓ High security in the time of transaction
- ✓ Update user profile
- ✓ Update password
- ✓ Secure payment of Online shopping
- ✓ Summary of all transaction with time
- ✓ Online successful creation of new account
- ✓ Online successful cheque book request
- ✓ Online secure fund transfer

3
ANALYSIS & DESIGN

3.1 Object Diagram

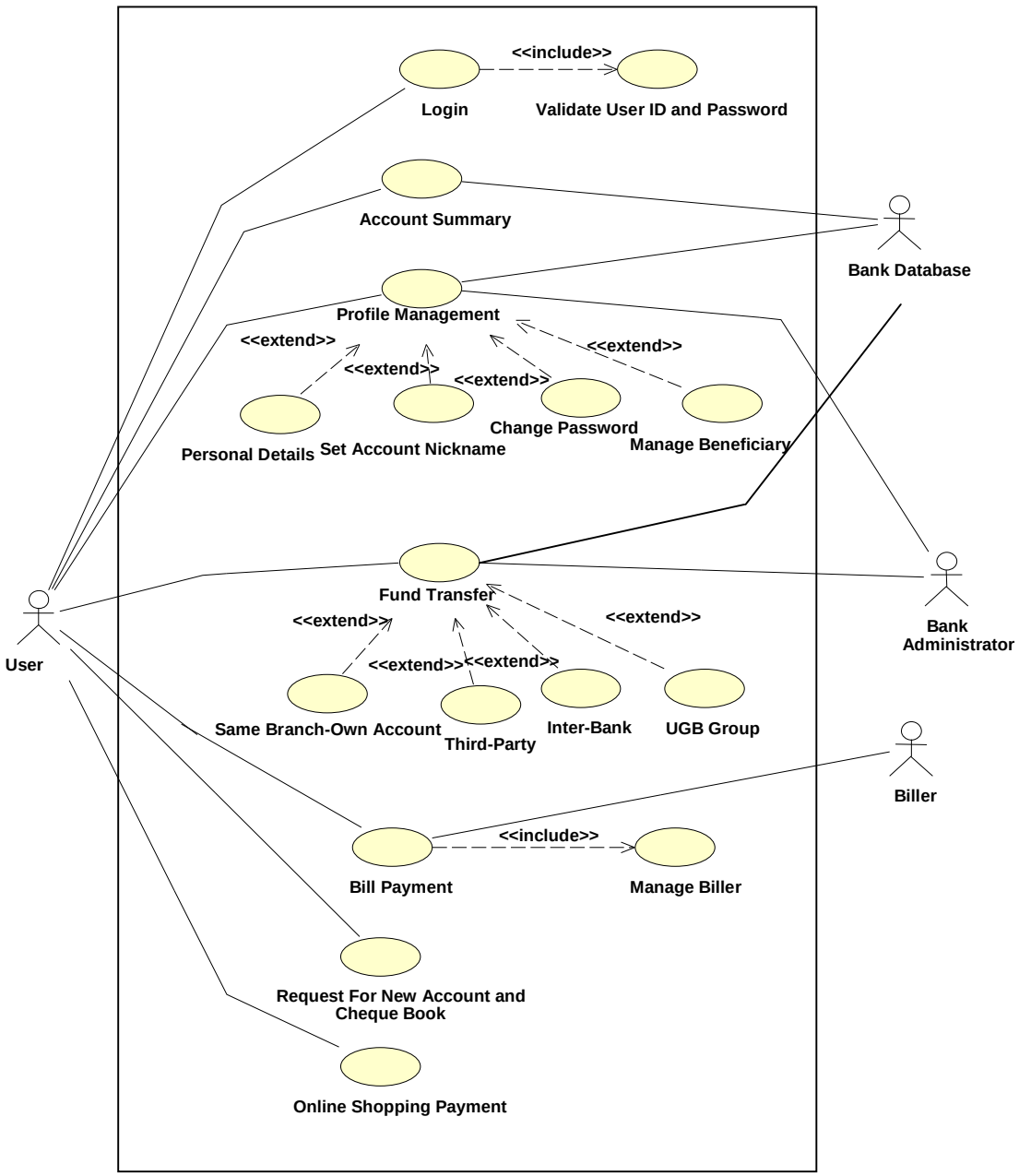


3.2 Class Diagram

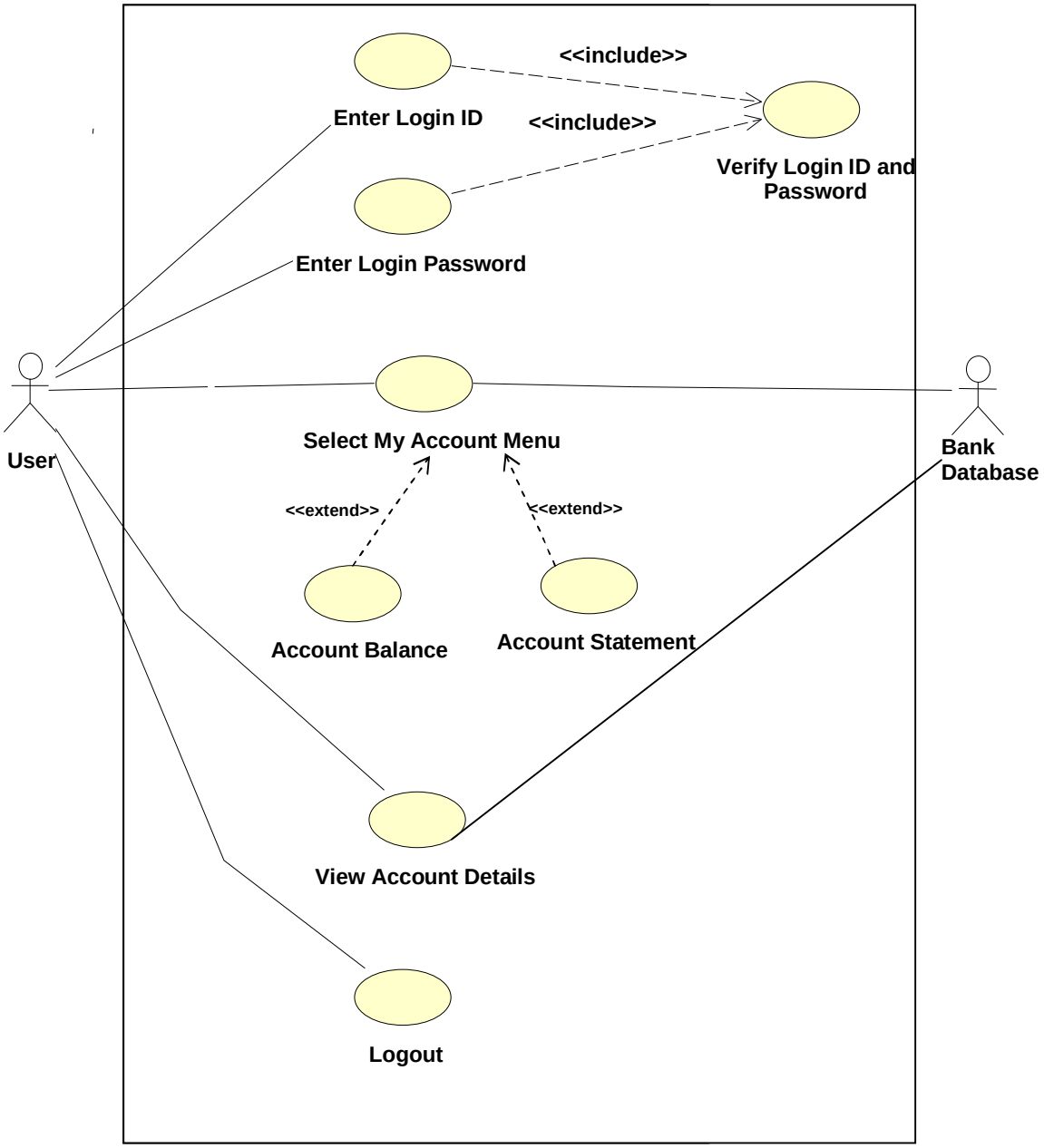


3.3 Use-case Diagram

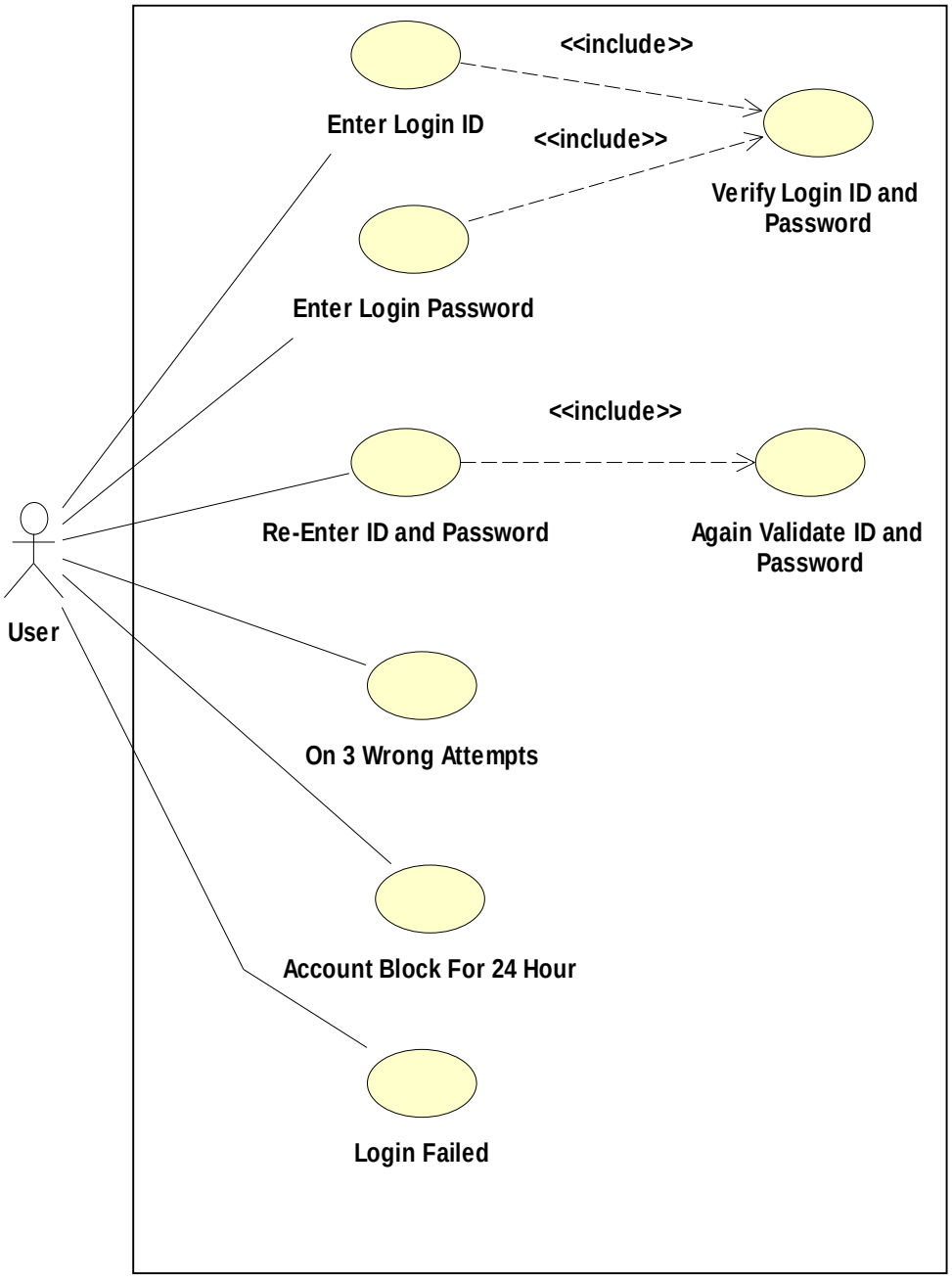
Main Use Case Diagram:



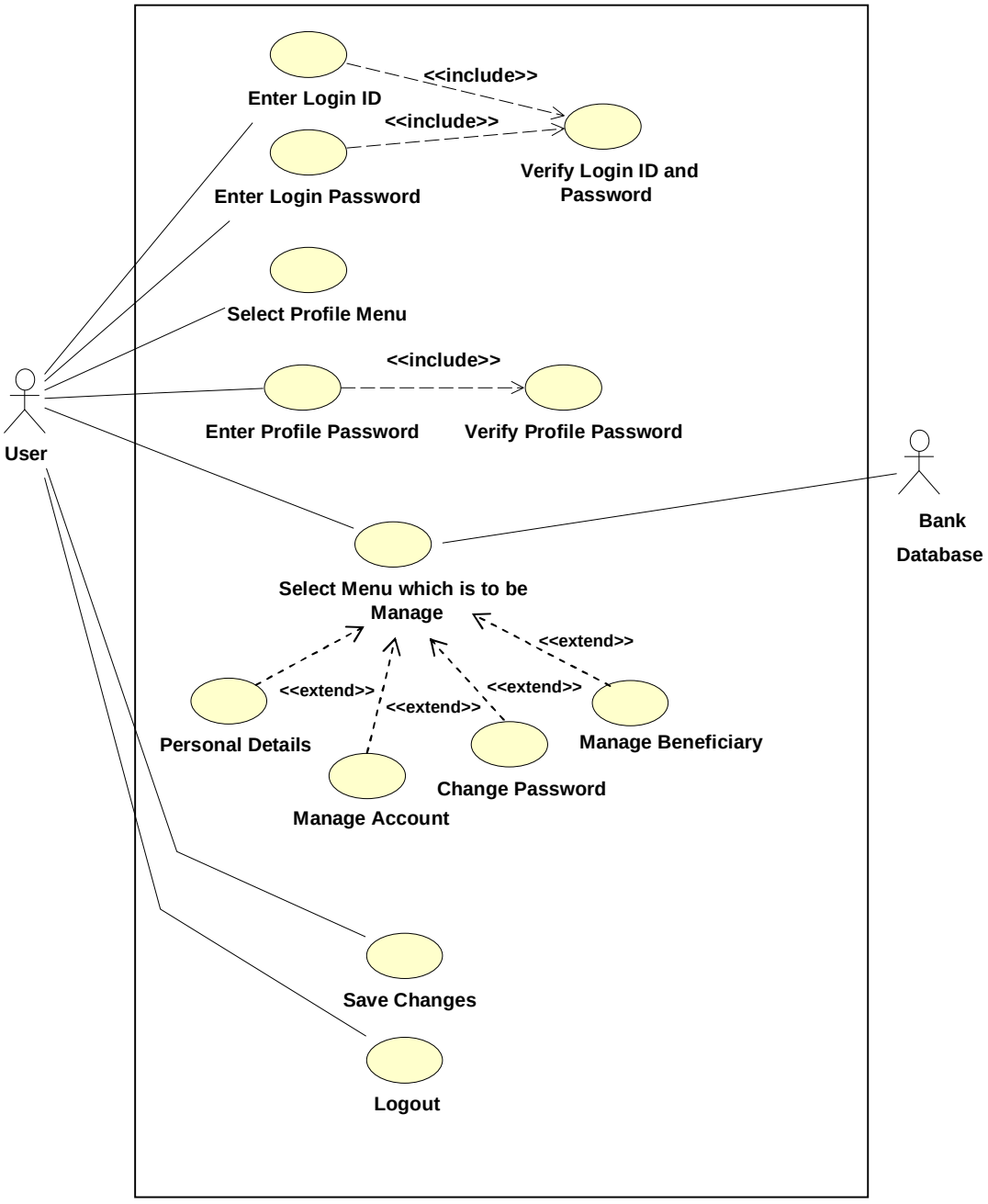
Account Summary:-



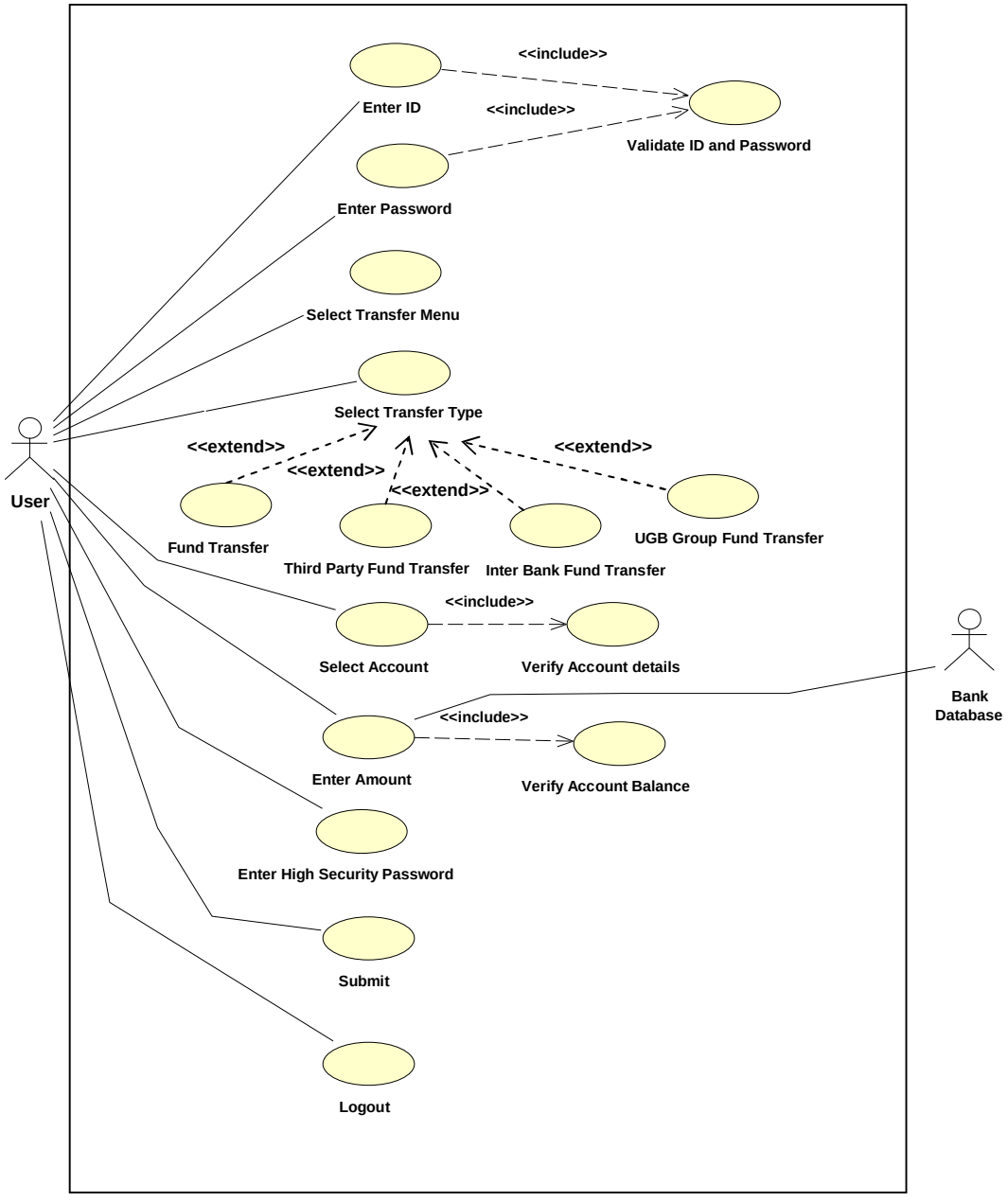
Login Failure:-



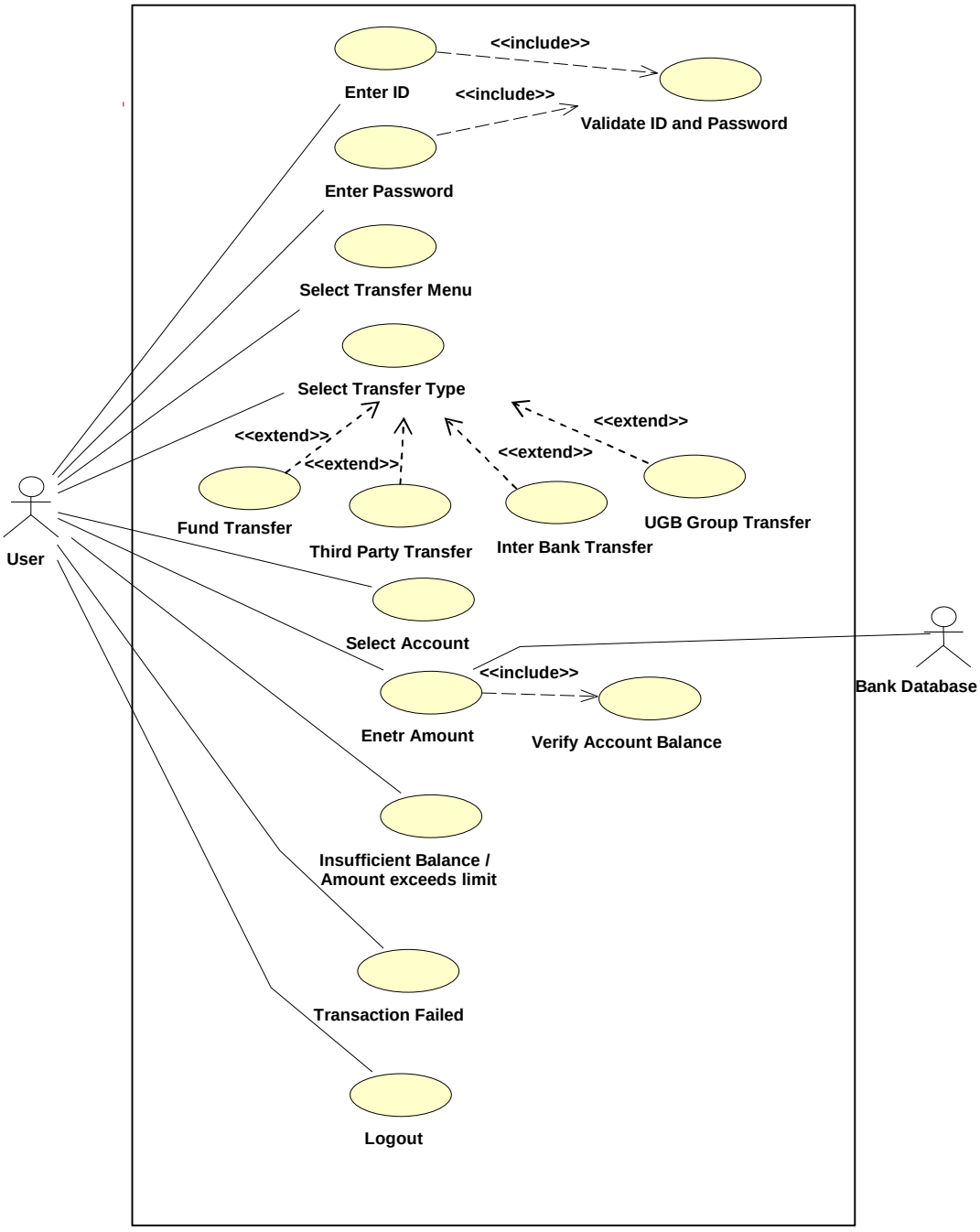
Profile Maintenance:-



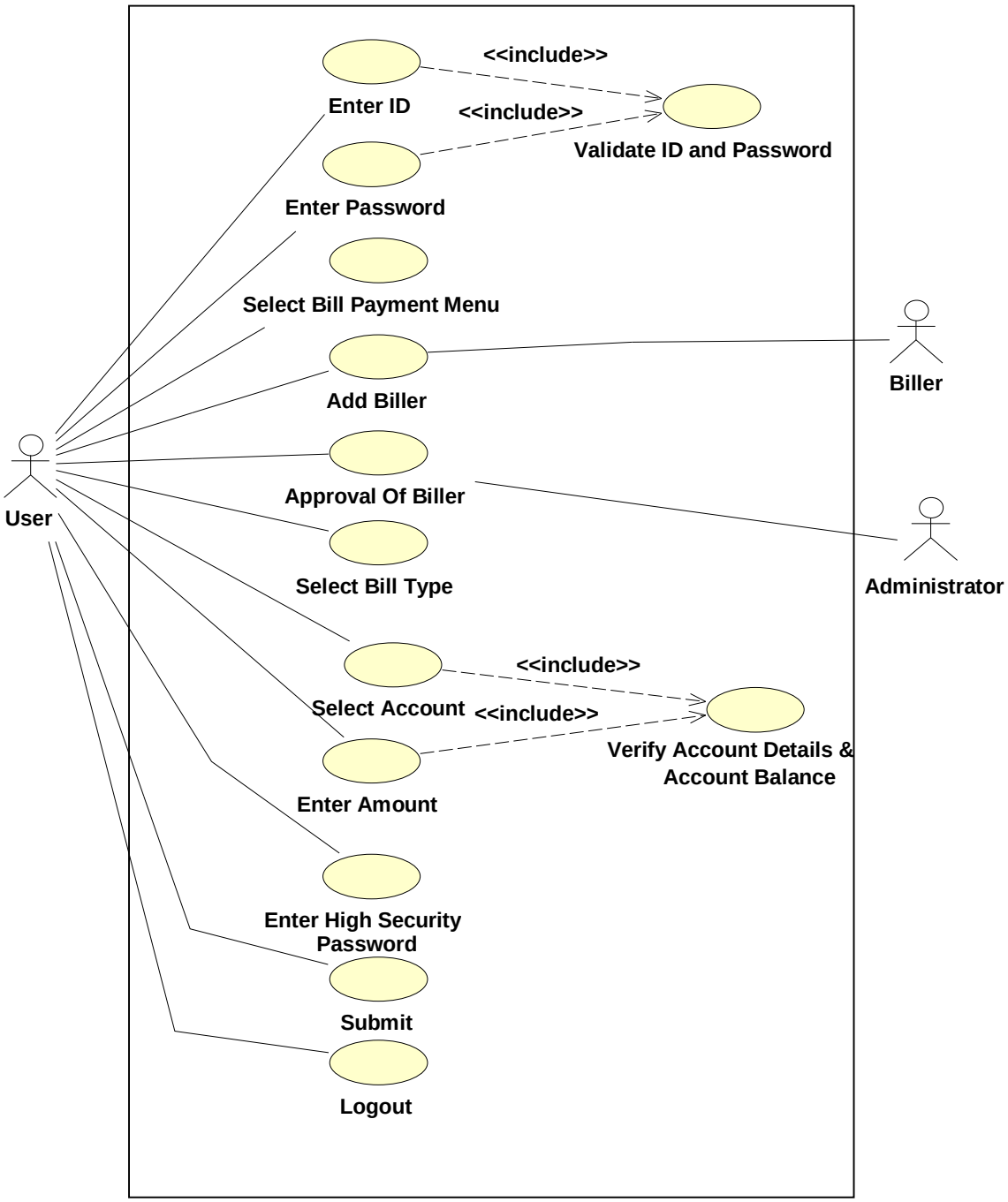
Fund Transfer:-



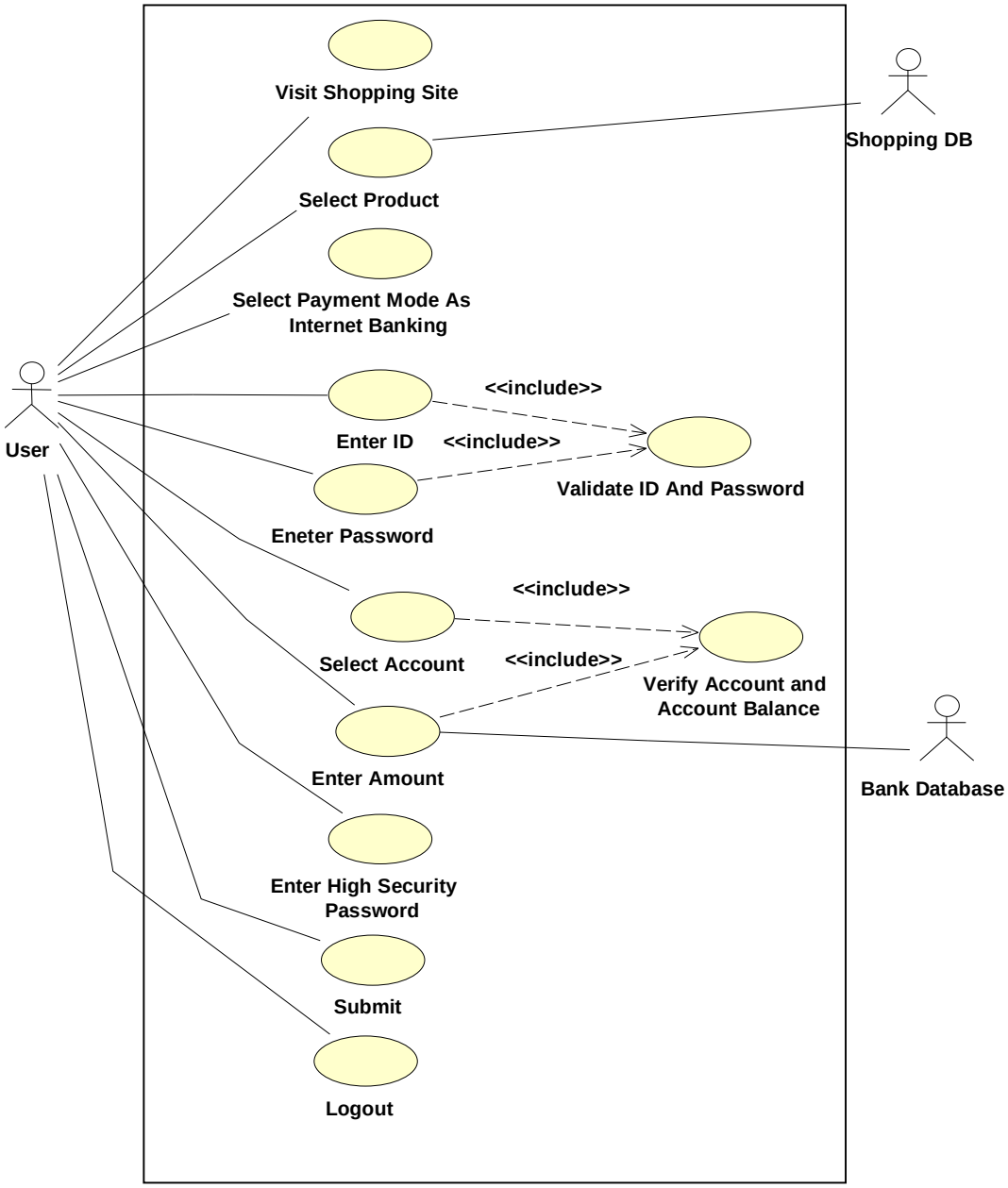
Transaction Failure:-



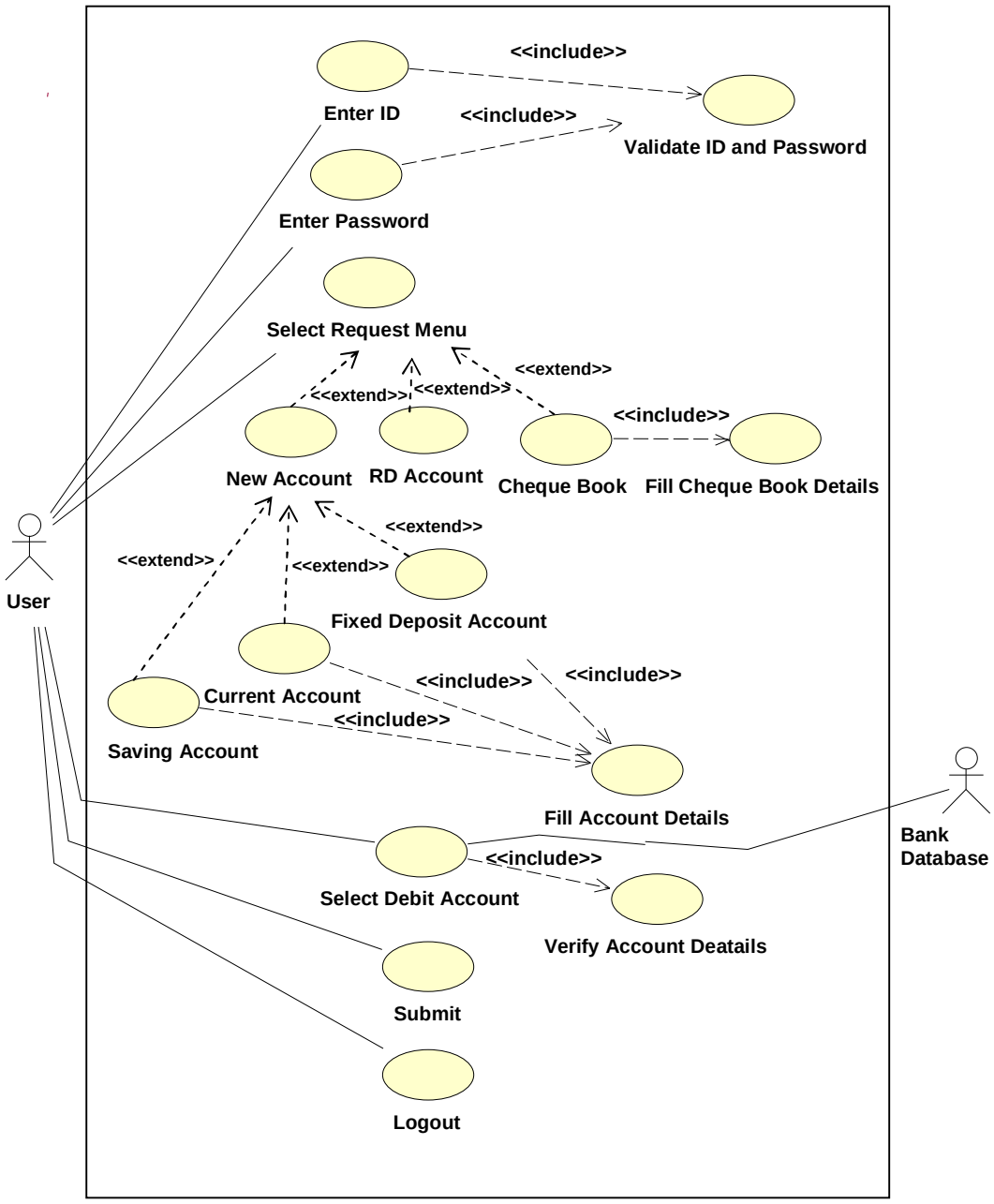
Bill Payment:-



Online Shopping Payment:-



Request:-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Enter ID
<<include>>
Validate ID and Password
Enter Password
Select Request Menu
<<extend>>
<<extend>>
<<extend>>
<<include>>
New Account
RD Account
Cheque Book
Fill Cheque Book Details
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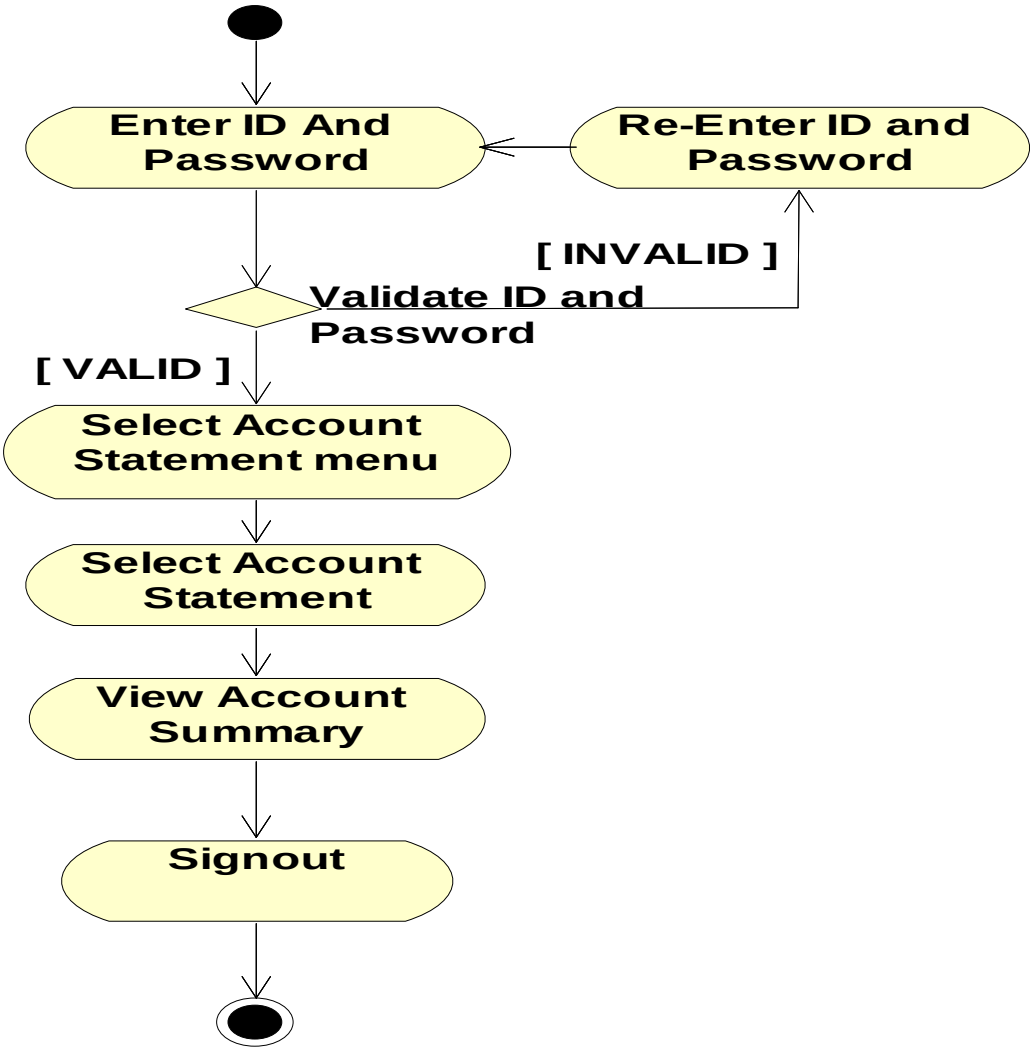
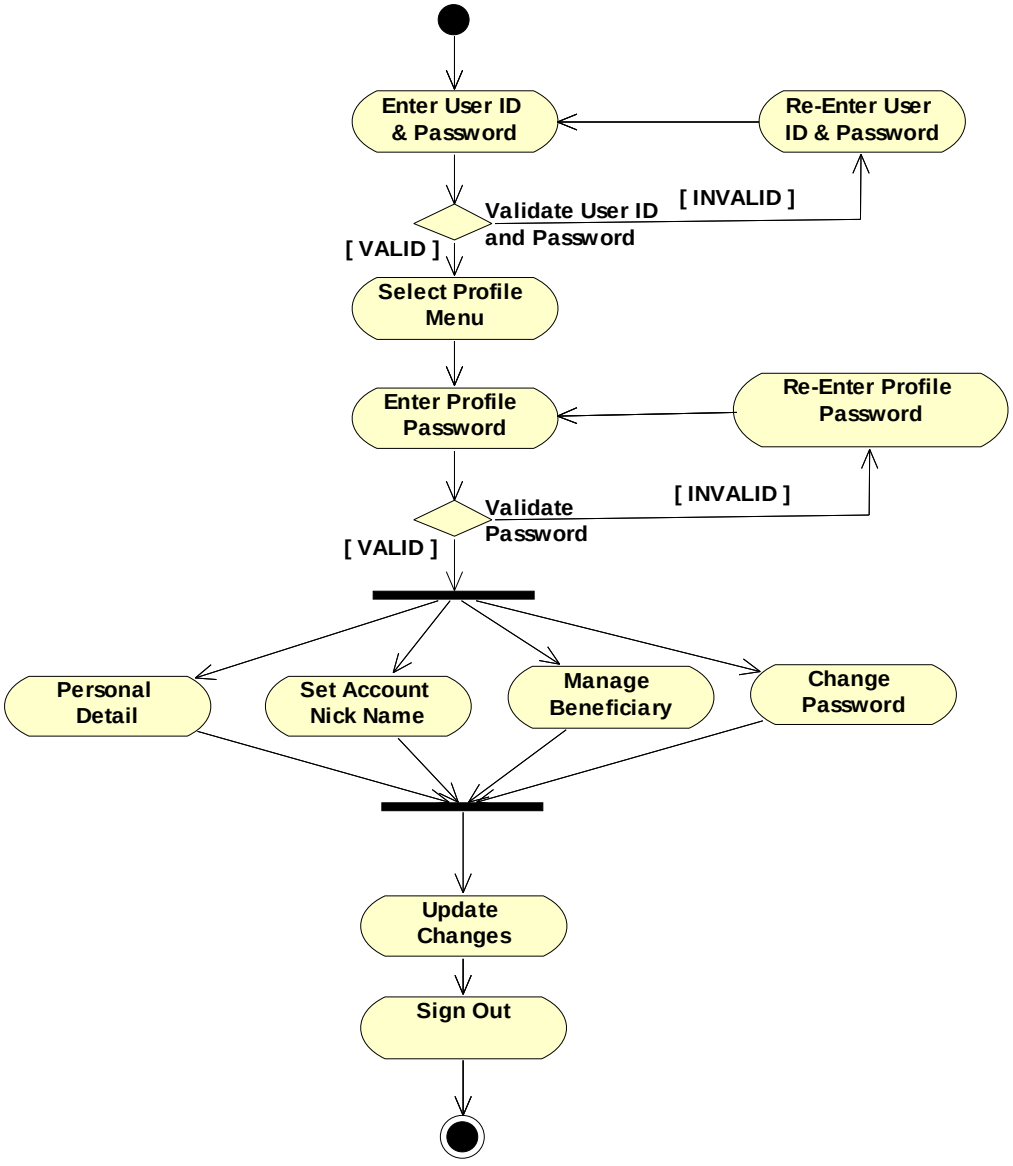
User
Fixed Deposit Account
<<include>>
<<include>>
Current Account
<<include>>
Saving Account
Fill Account Details
Bank Database
<<include>>
Select Debit Account
Verify Account Deatails
Submit
Logout

3.4 Activity Diagram

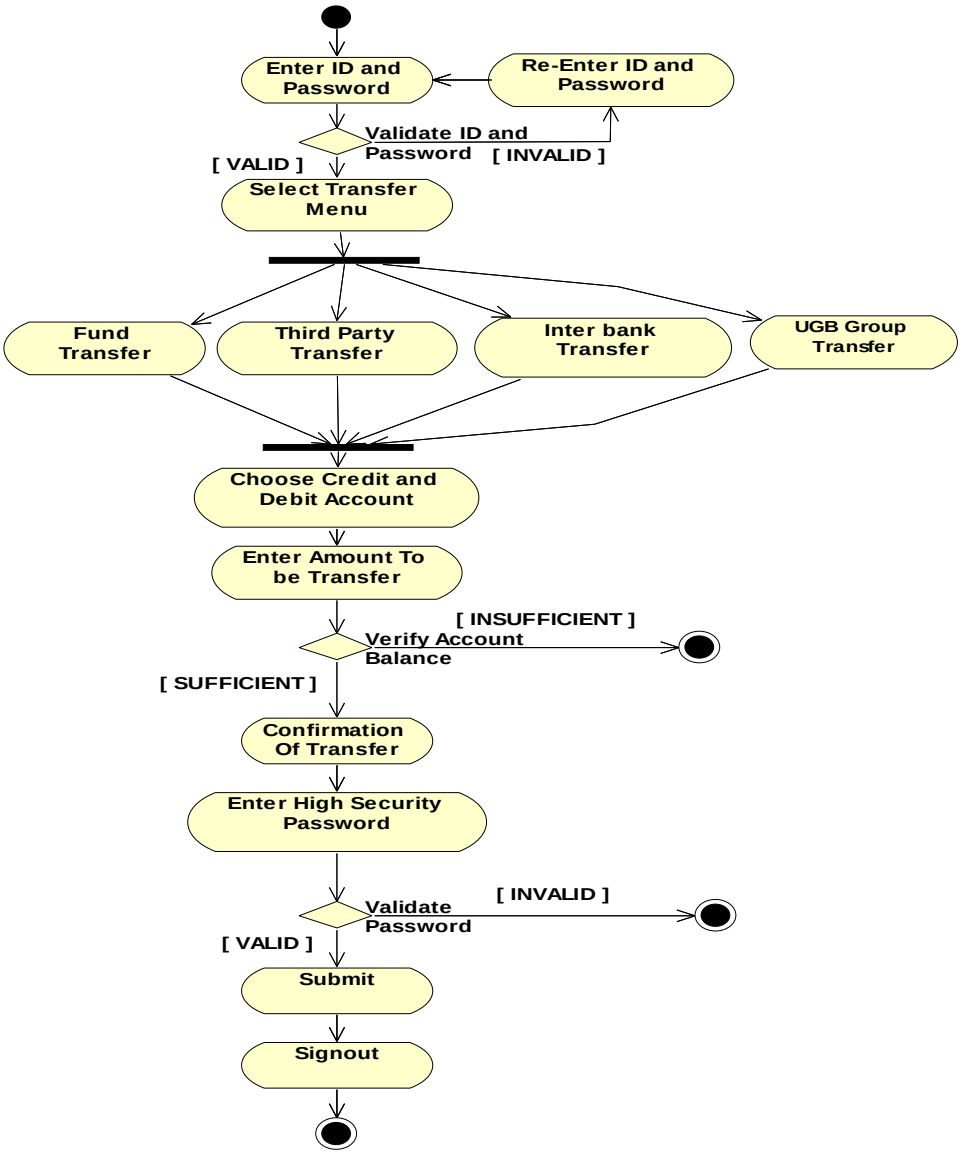
Account Summary:-



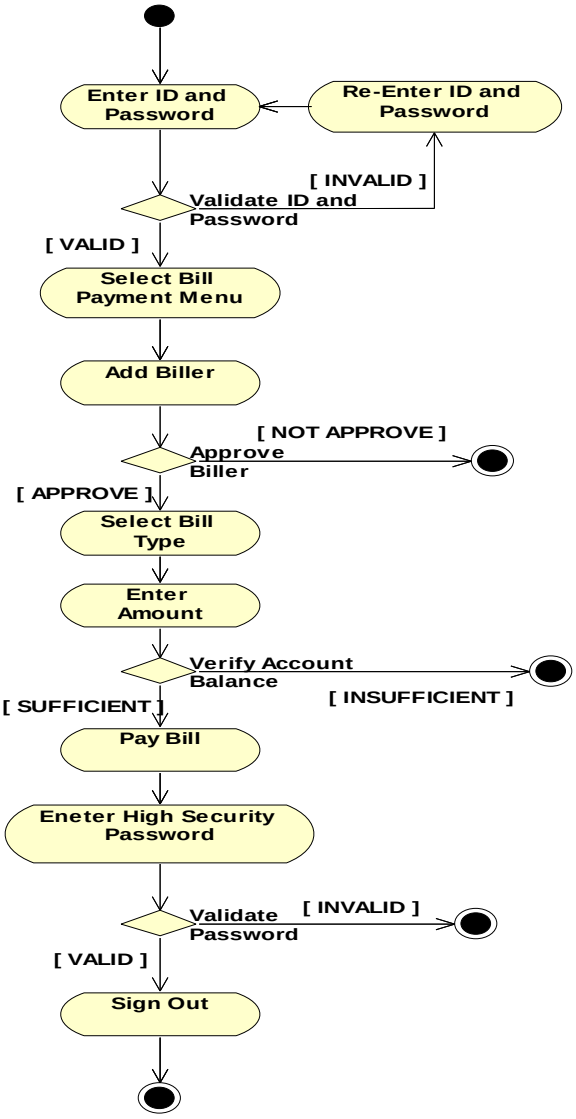
Profile Maintenance :-



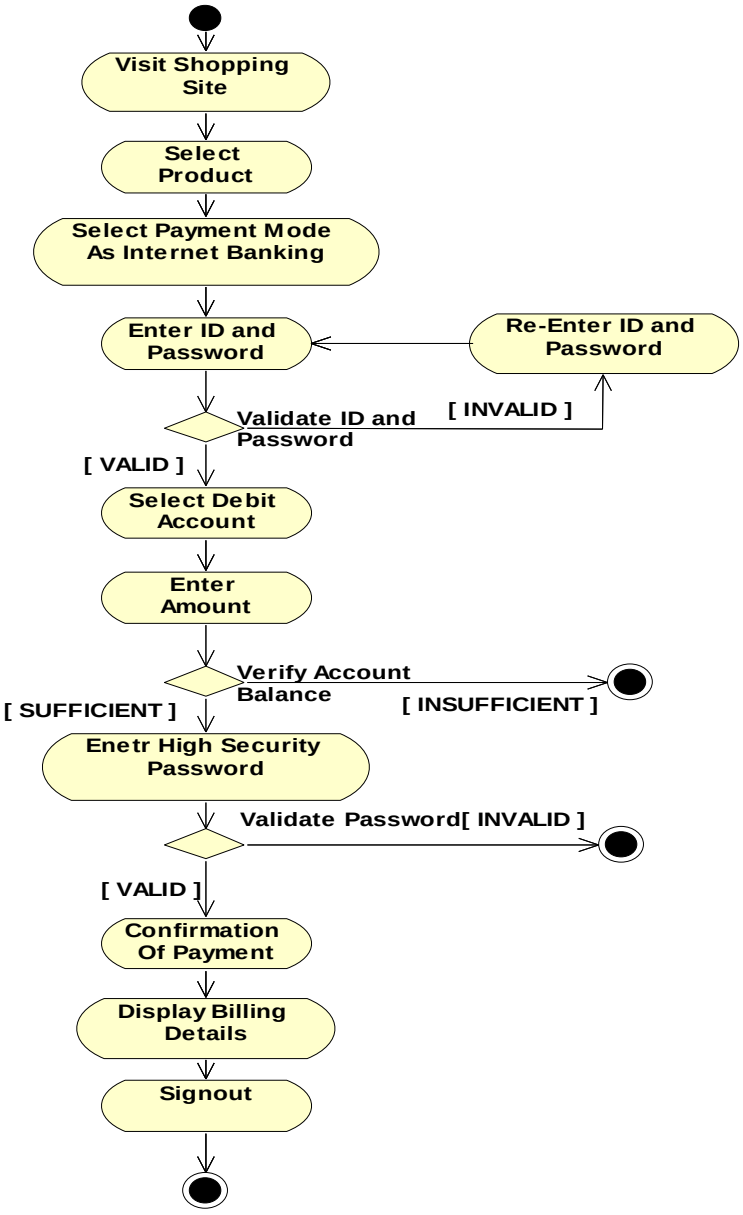
Fund Transfer:-



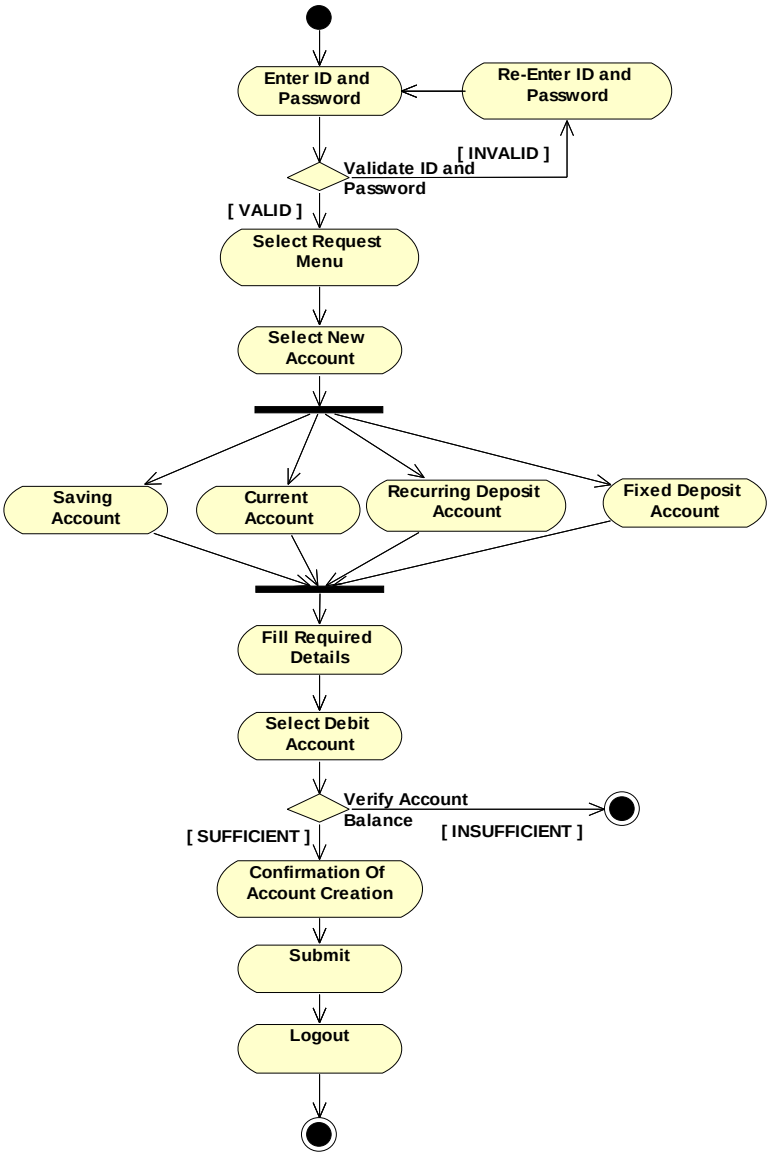
Bill Payment:-



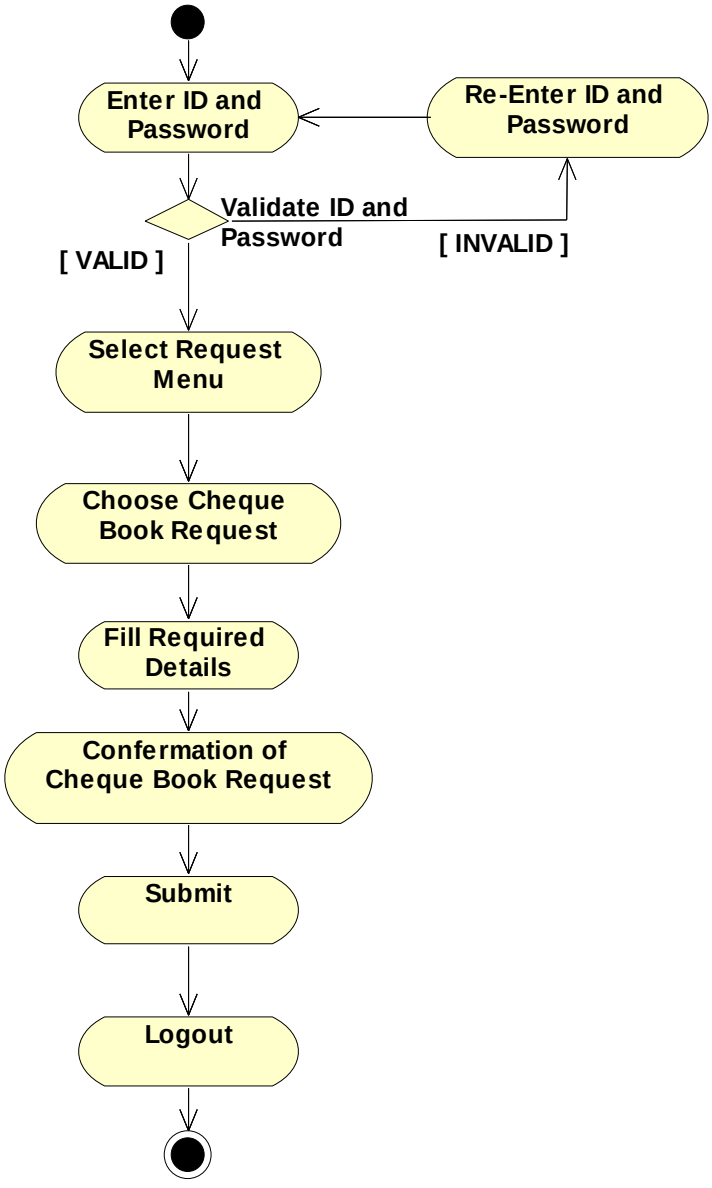
Online Shopping Payment:-



Request (New Account) :-

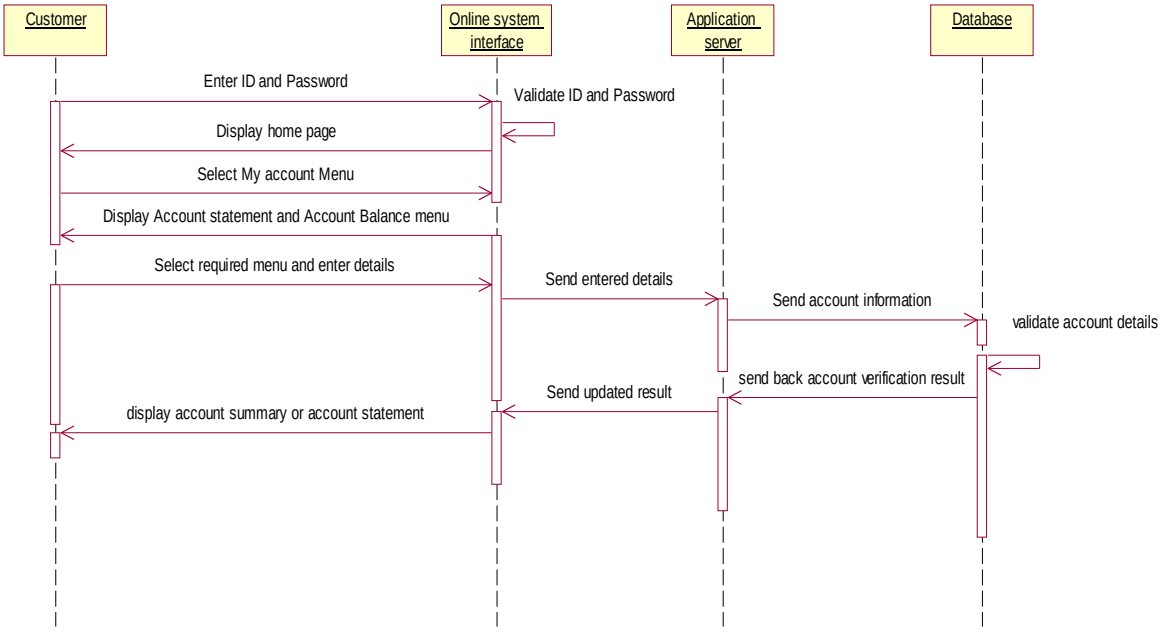


Request (Cheque Book) :-

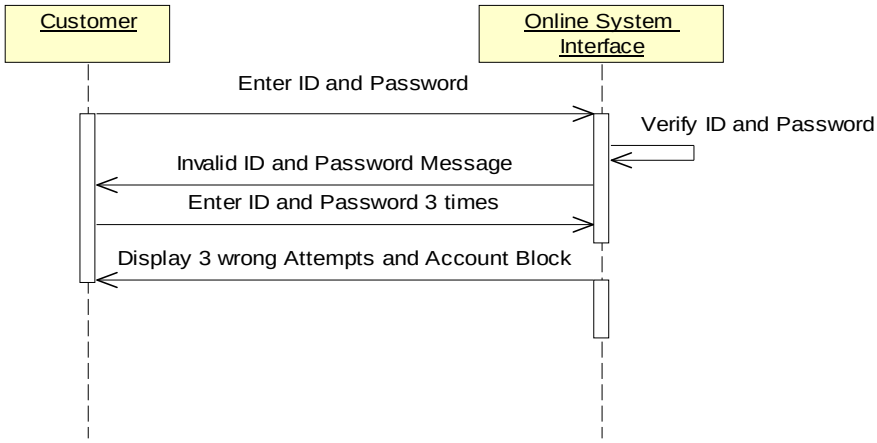


3.5 Sequence diagram

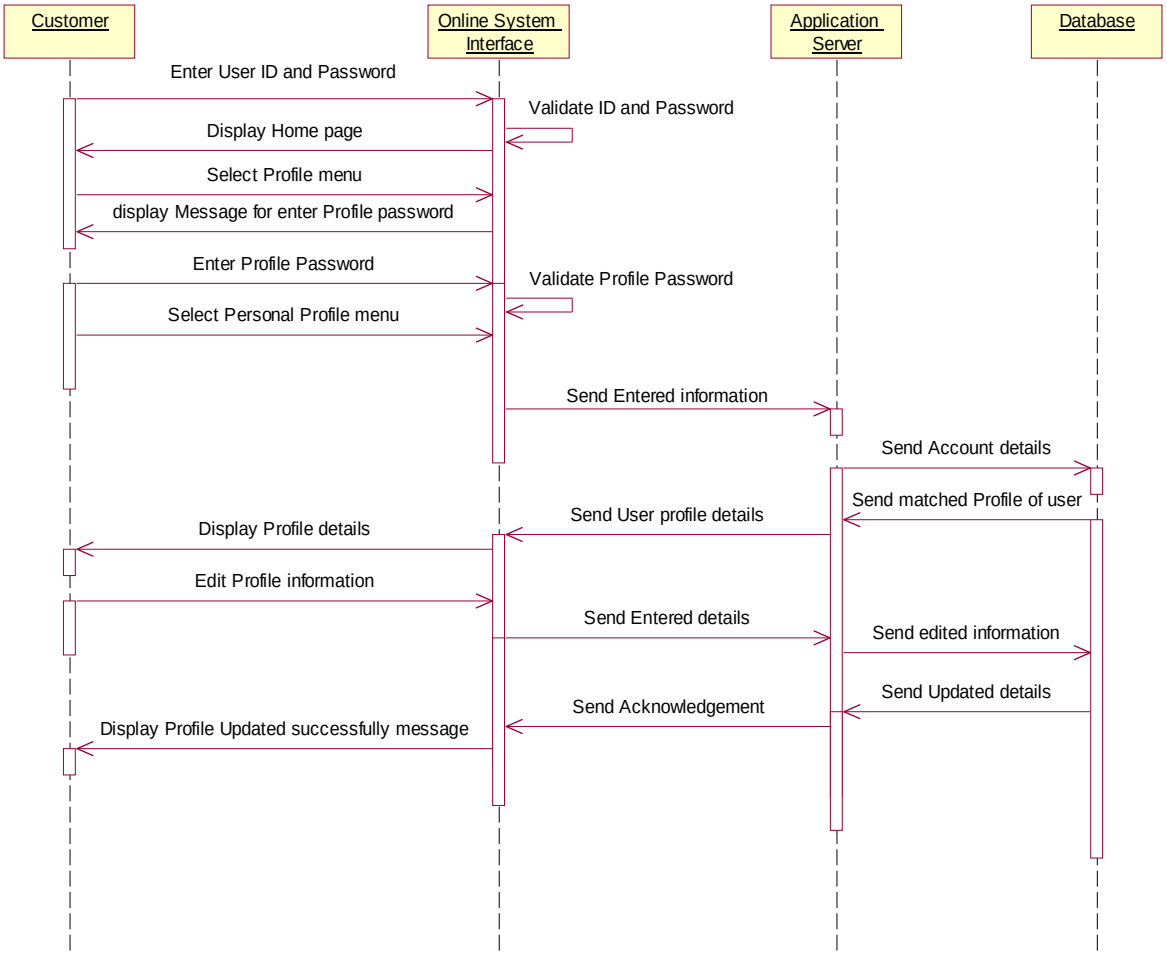
Account Summary:-



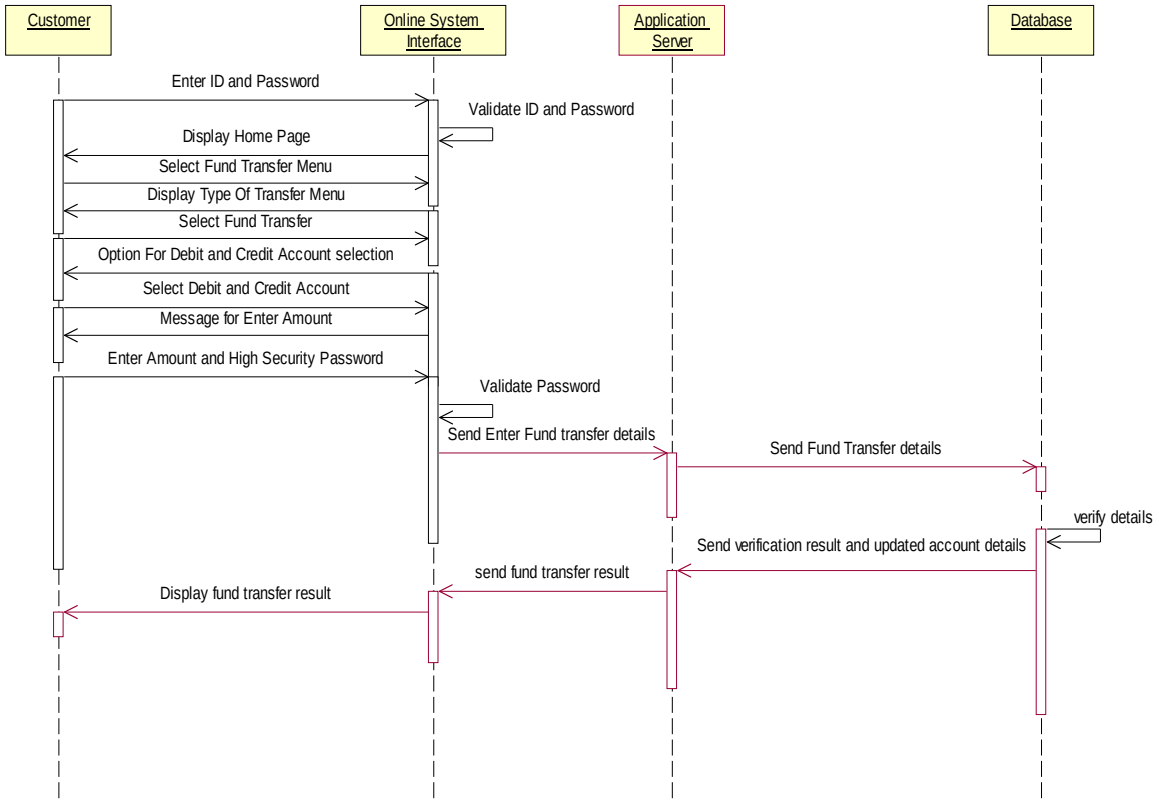
Login Failed:-



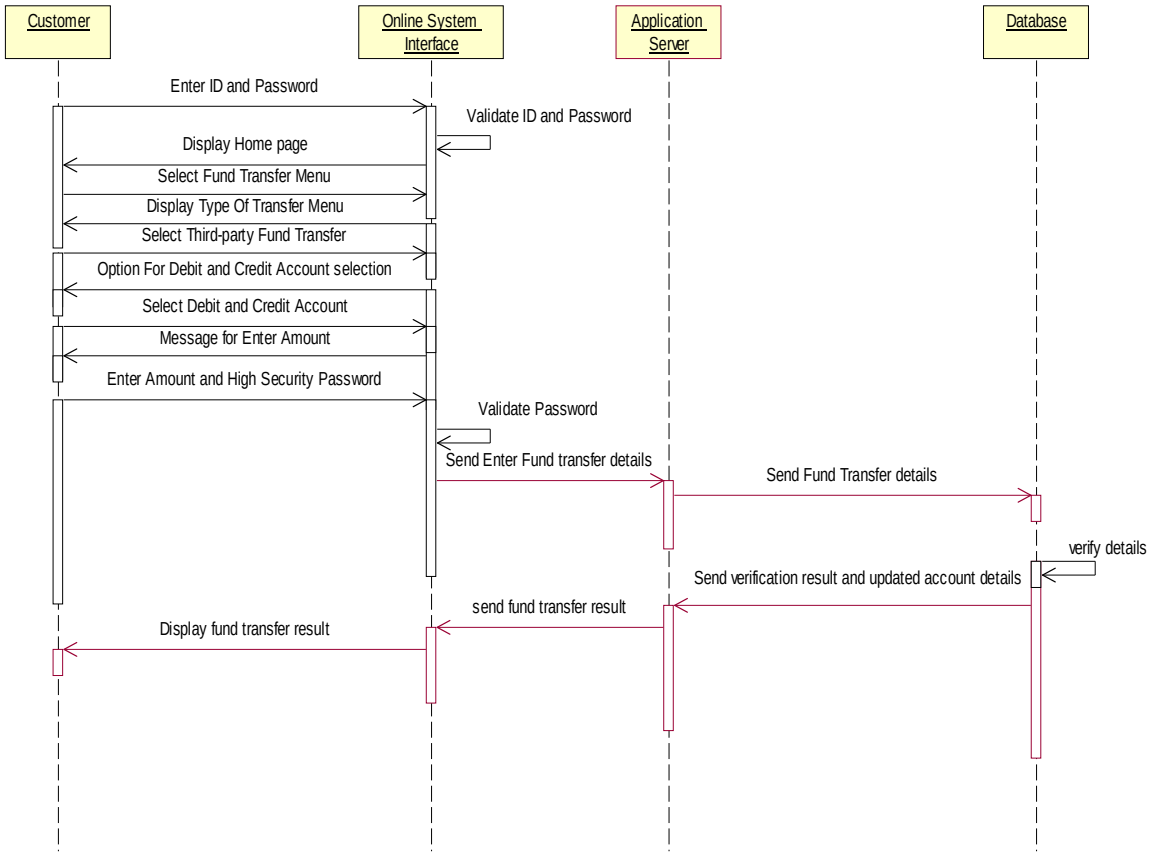
Profile Maintain (Personal Profile):-



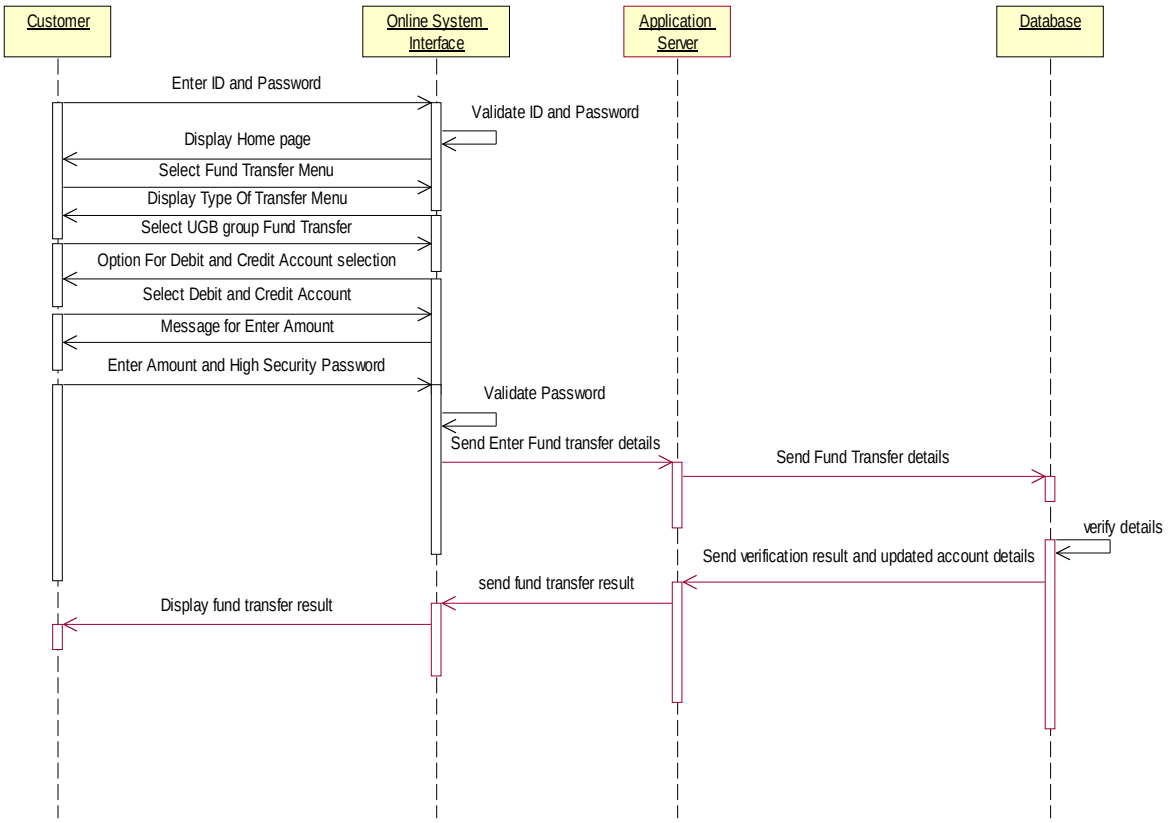
Fund Transfer:-



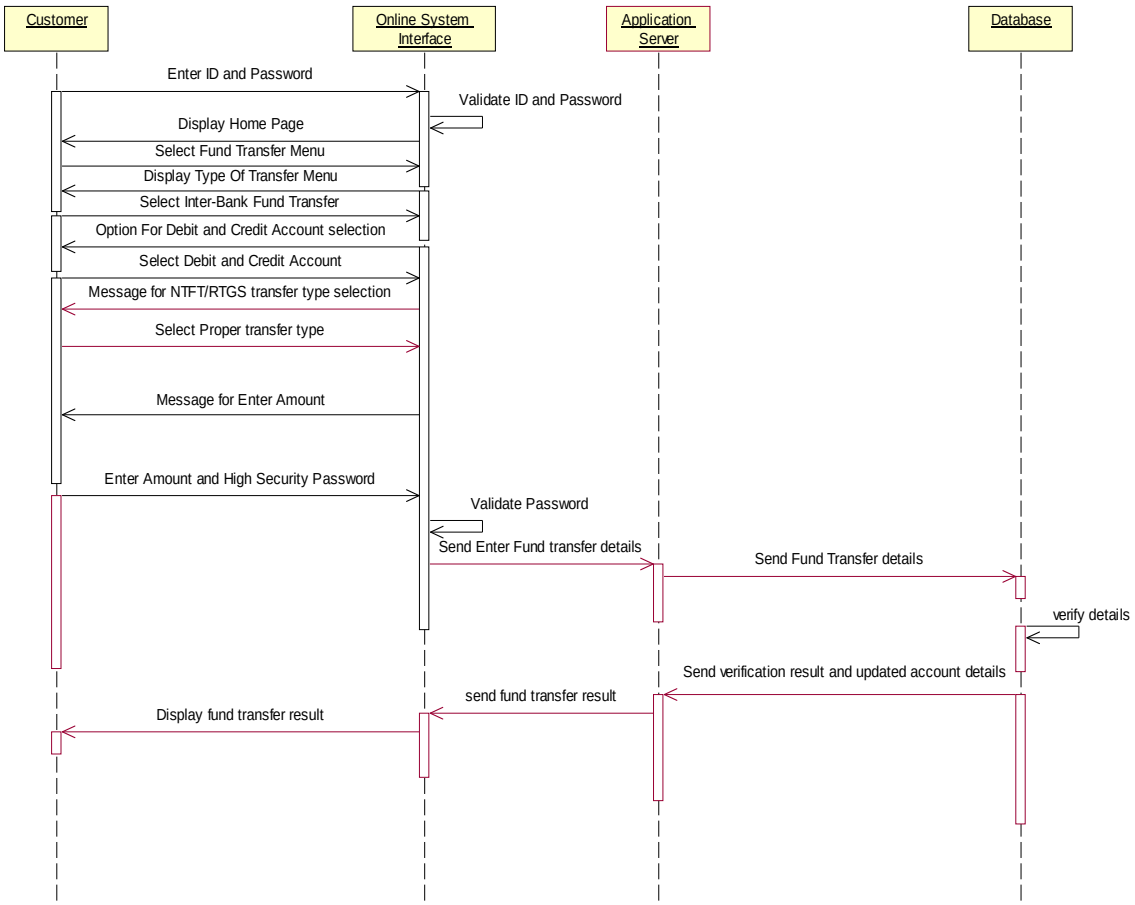
Third Party Fund Transfer:-



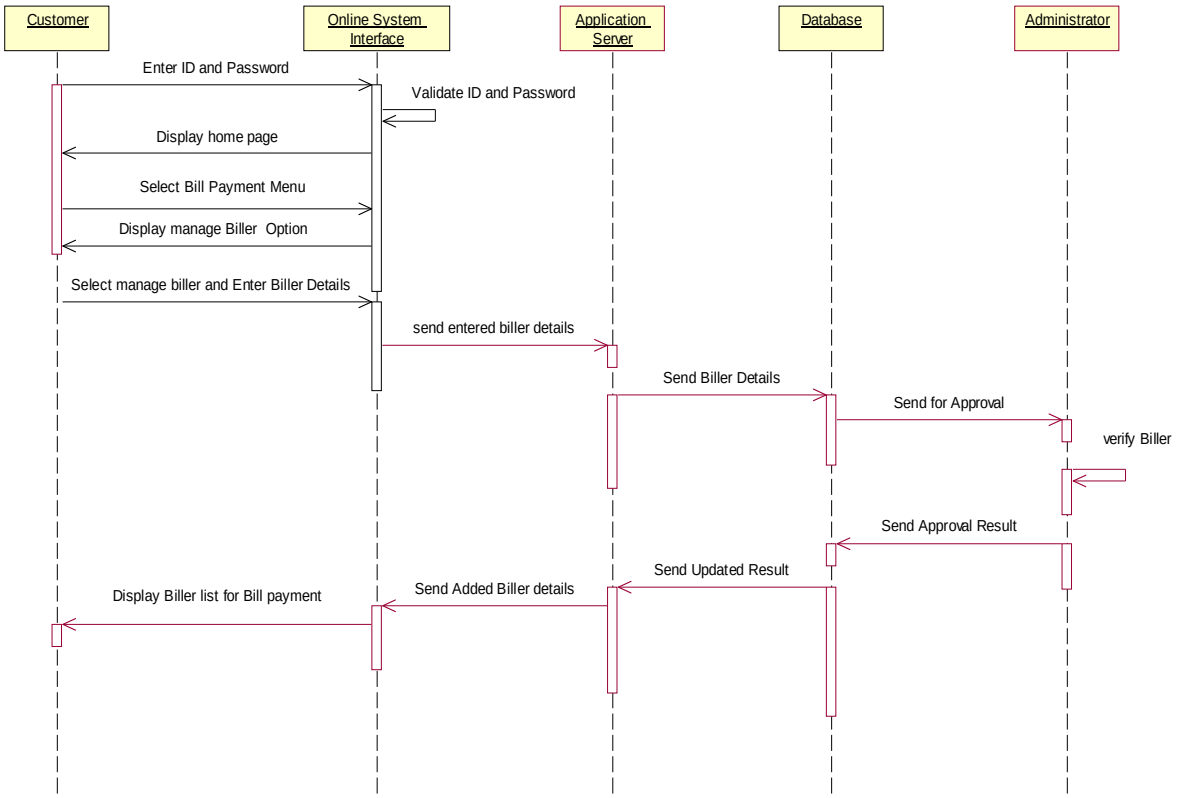
UGB Group Fund Transfer:-



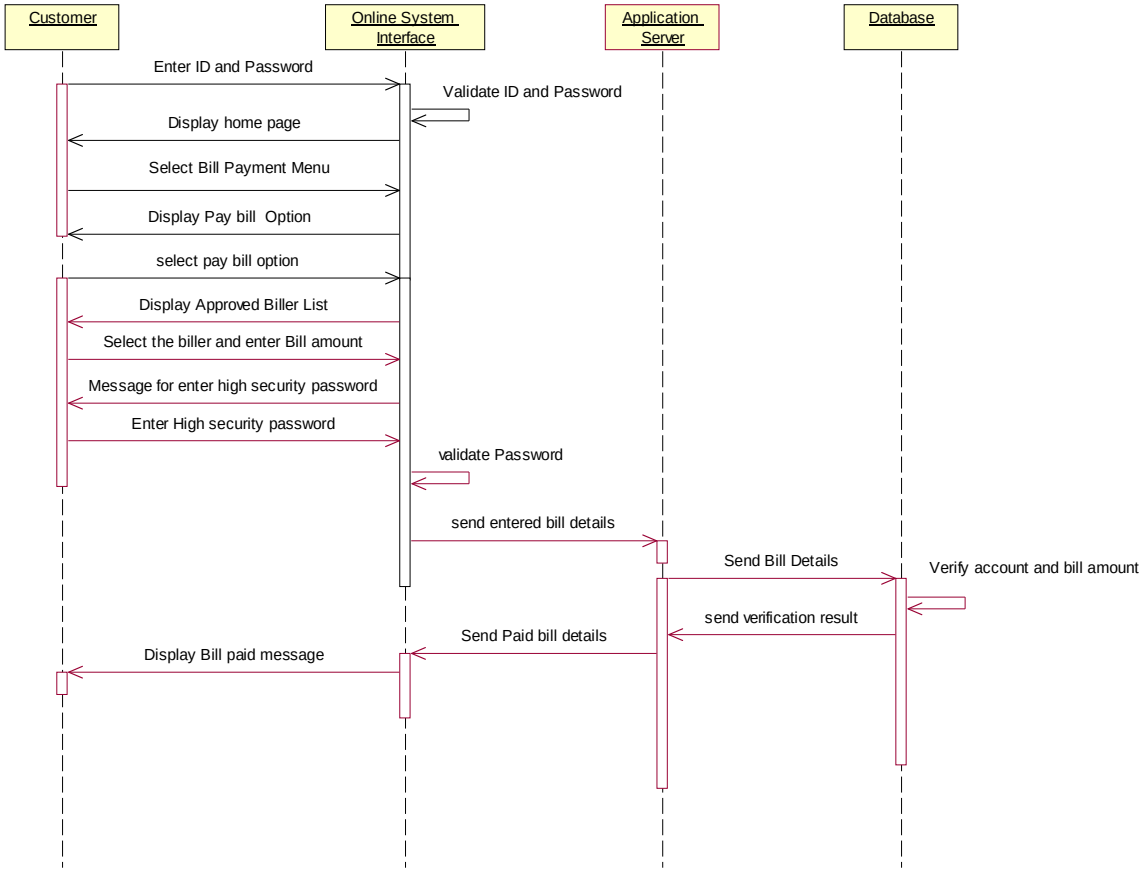
Inter Bank Fund Transfer:-



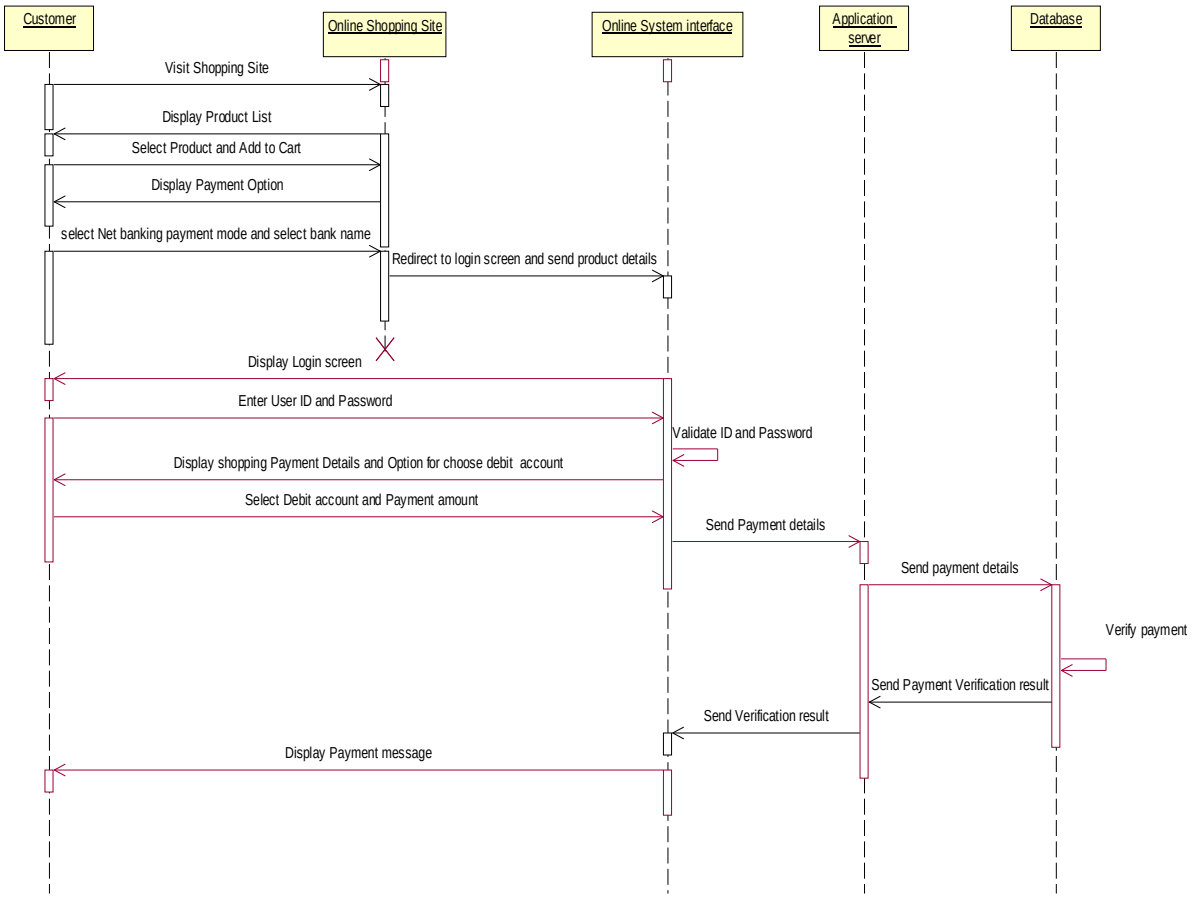
Manage Biller:-



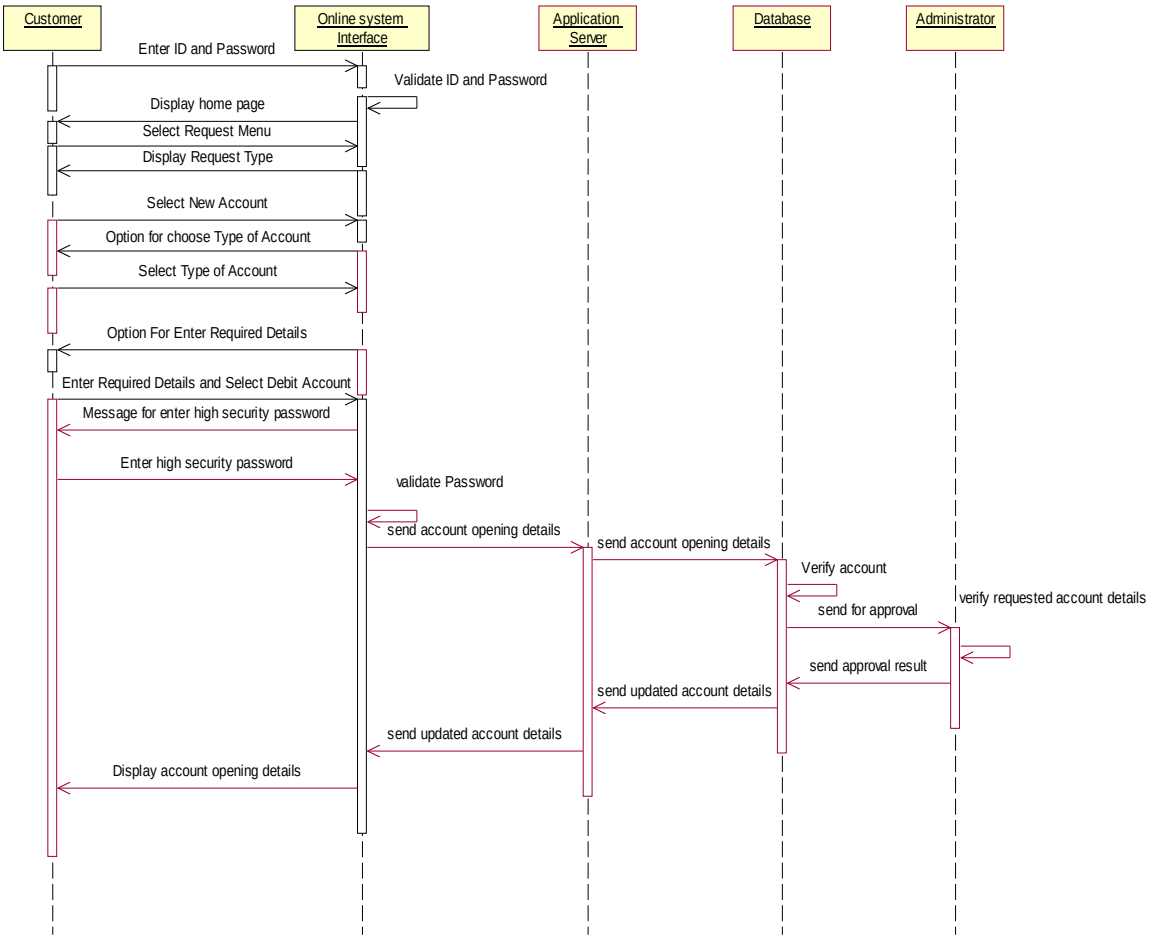
Bill Payment:-



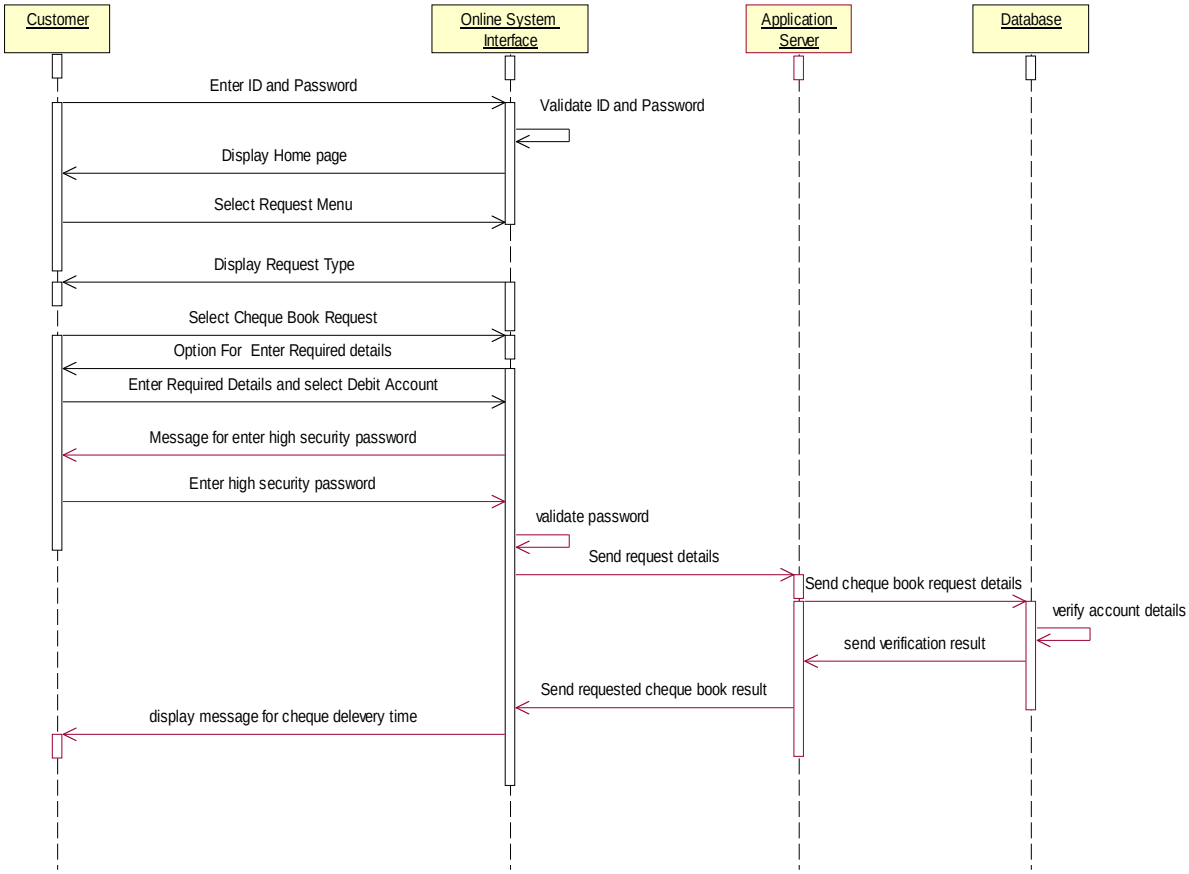
Online Shopping Payment:-



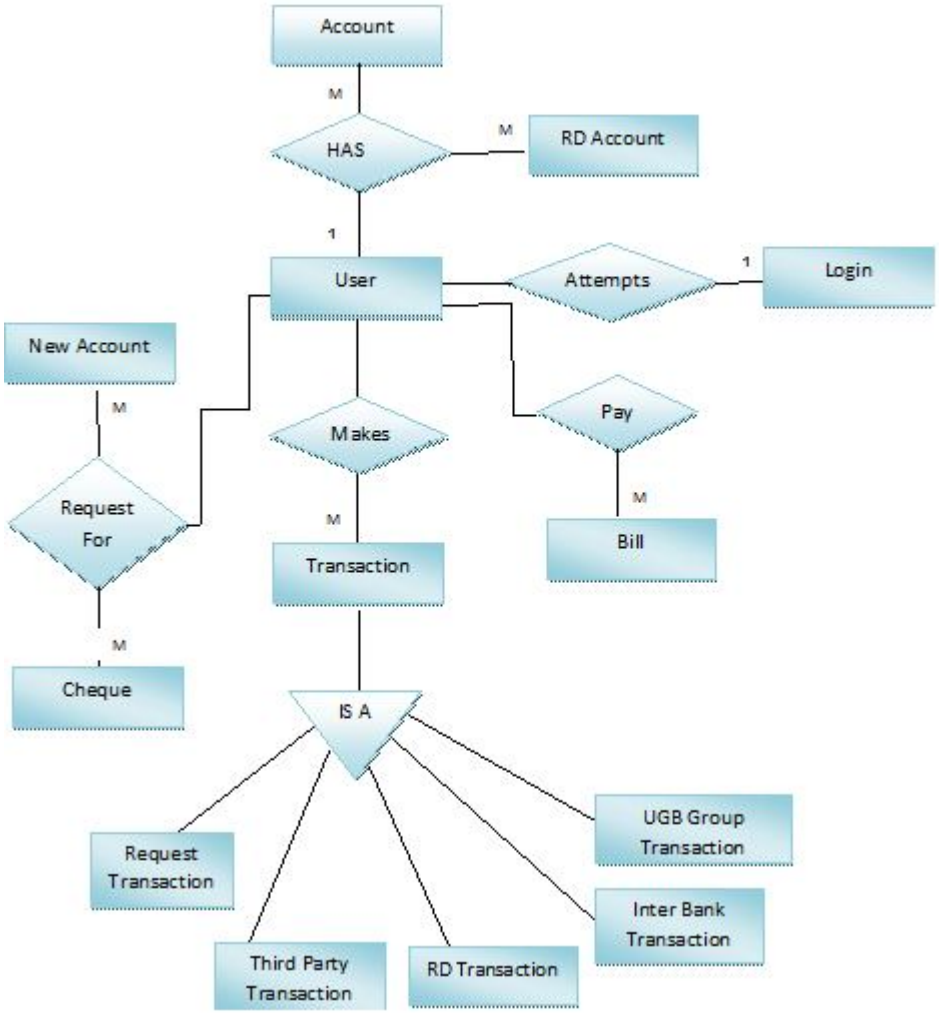
Request (New Account):-



Request (Cheque Book):-

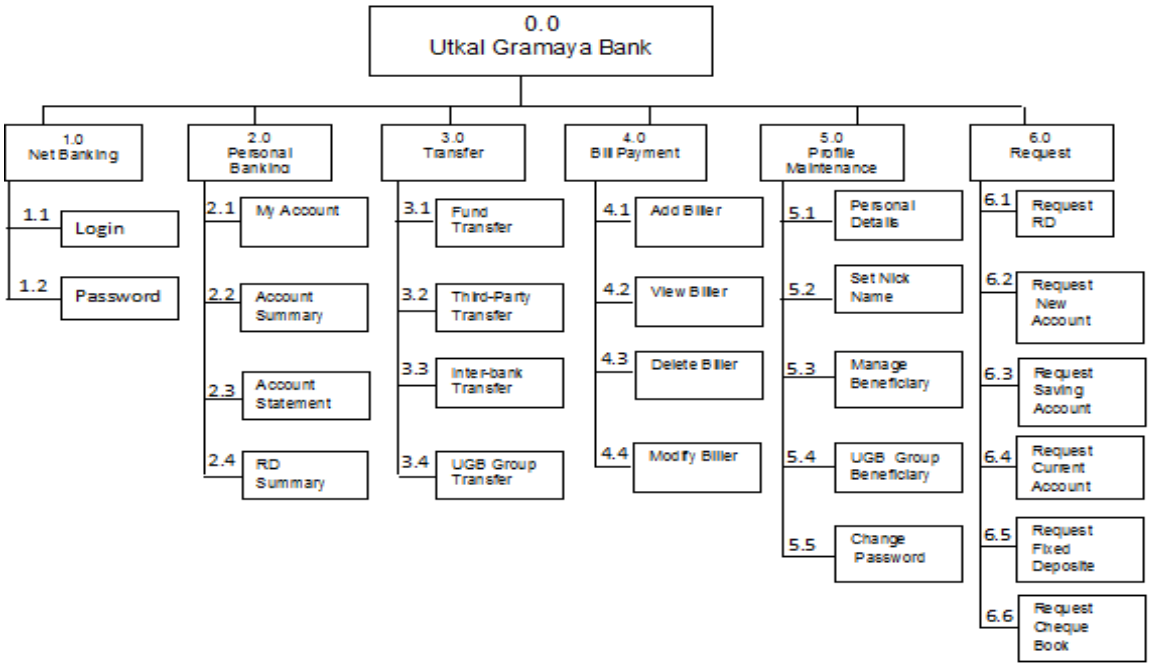


3.6 Entity Relationship Diagram

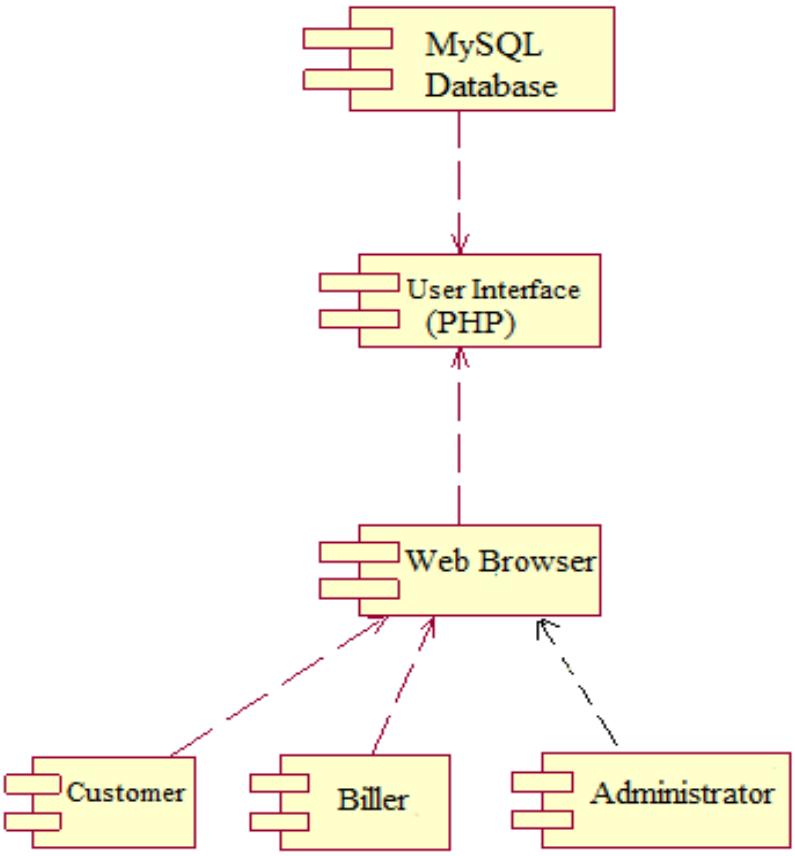


3.7 Module Hierarchy Diagram

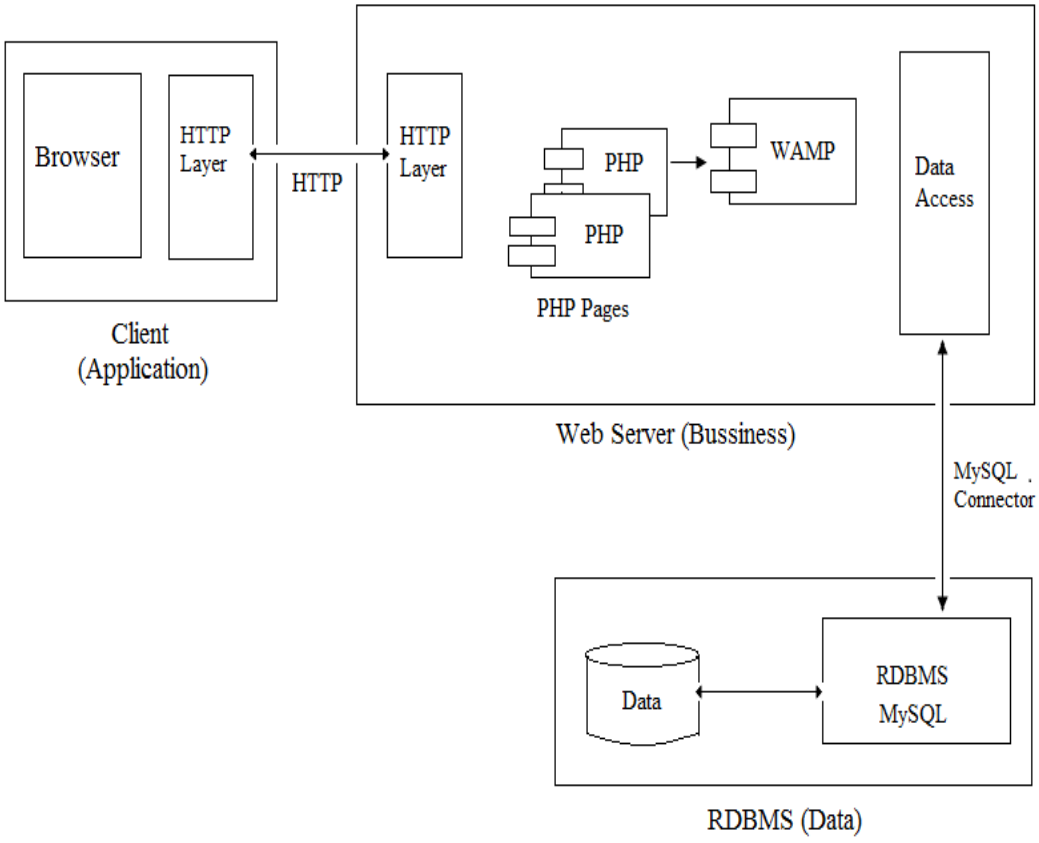
Module Hierarchy Diagram



3.8 Component Diagram



3.9 Deployment Diagram



3.10 Module Specification

The module hierarchy diagram depicts the different modules present in this project and flow within each module.

Statement Enquiry:

In this module we can get statement upto last 10 transactions. The statement may contain amount, transaction date and transaction time etc. Statement Enquiry may be either account summary or account statement.

Account summary: - Select the transaction account and view the details of account and last 10 transactions also.

Account statement: - Select the transaction account, enter start and end date and view the transactions details
within specified dates.

Profile Maintenance:

Maintain personal details :- Edit User name, E-mail id and Mobile number.

Set Account Nick Name:- Edit Account Nick name.

Change Password:- Change the login, profile and High security Password.

Fund Transfer(own account-same branch):-

Select debit account and credit account, Enter debit amount and transfer fund in same branch-own account.

Third-party Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in different branch-same bank and different user.

Inter-bank Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in different bank account and different user.

UGB Group Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in UGB Group account and different user.

Utility Bill Payment:

Manage Biller:- Add, view, delete and modify many categories of biller like insurance, electricity, telephone billers for bill payment.

Bill Payment:- Select registered biller and pay the bill amount.

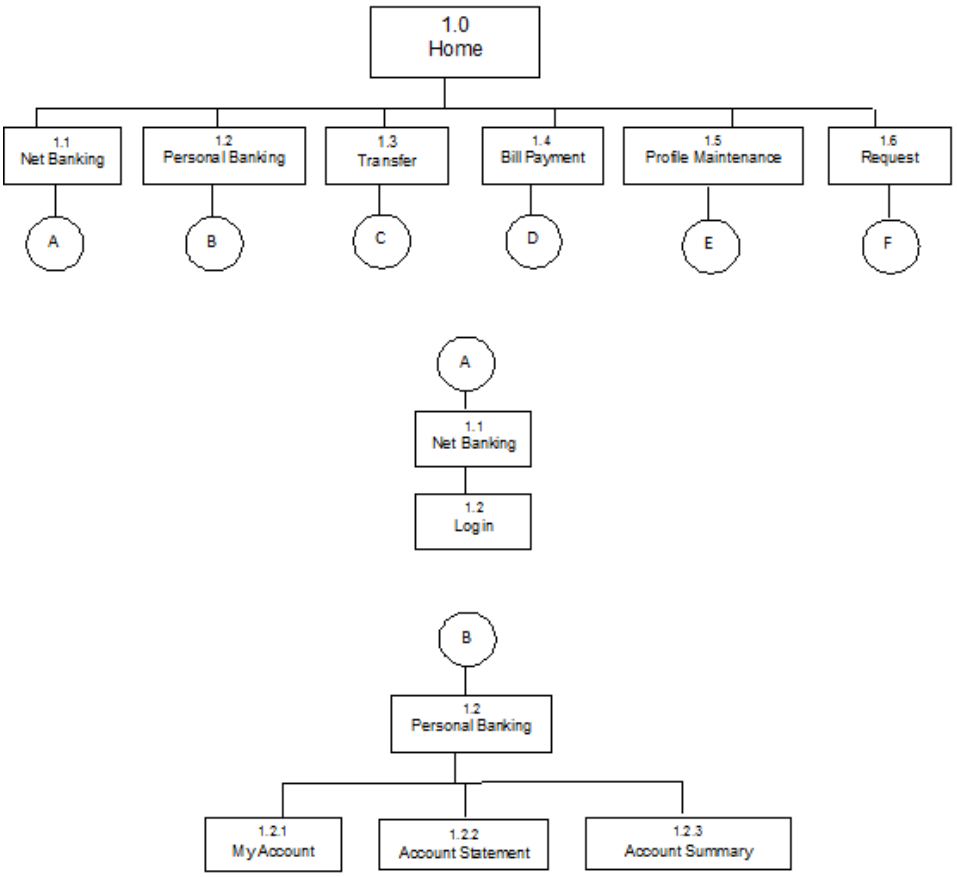
Request:

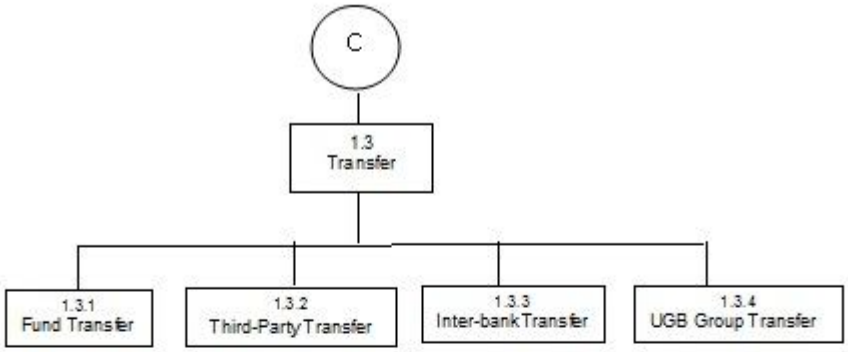
Request for RD:- Select Debit account and debit amount and request for RD Account .

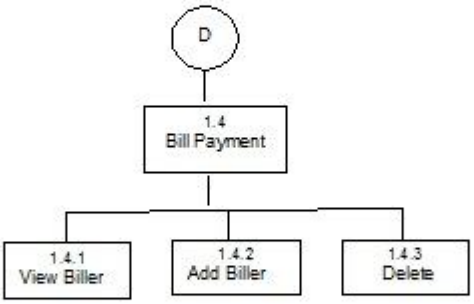
Request for New Account:- Select debit account, enter debit amount and select new account type and send request for opening an account.

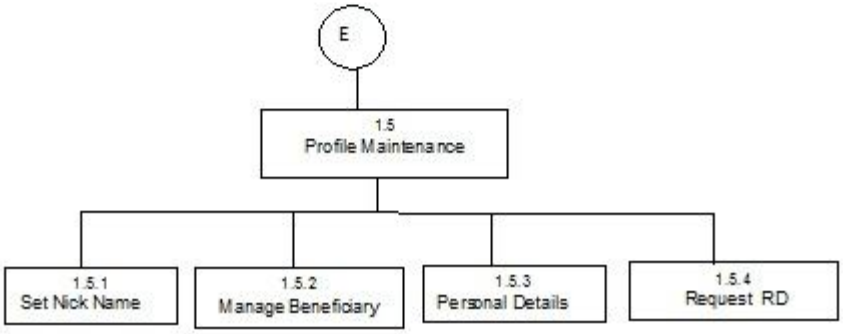
Request for Cheque book:- Select debit account, enter cheque book details and send request for cheque book.

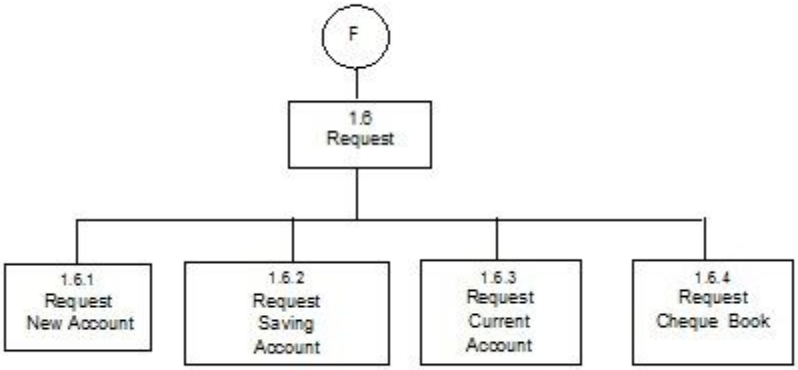
3.11 Web Site Map Diagram




C
1.3
Transfer
1.3.1
Fund Transfer
1.3.2
Third-Party Transfer
1.3.3
Inter-bank Transfer
1.3.4
UGB Group Transfer


D
1.4
Bill Payment
1.4.1
View Biller
1.4.2
Add Biller
1.4.3
Delete


E
1.5
Profile Maintenance
1.5.1
Set Nick Name
1.5.2
Manage Beneficiary
1.5.3
Personal Details
1.5.4
Request RD

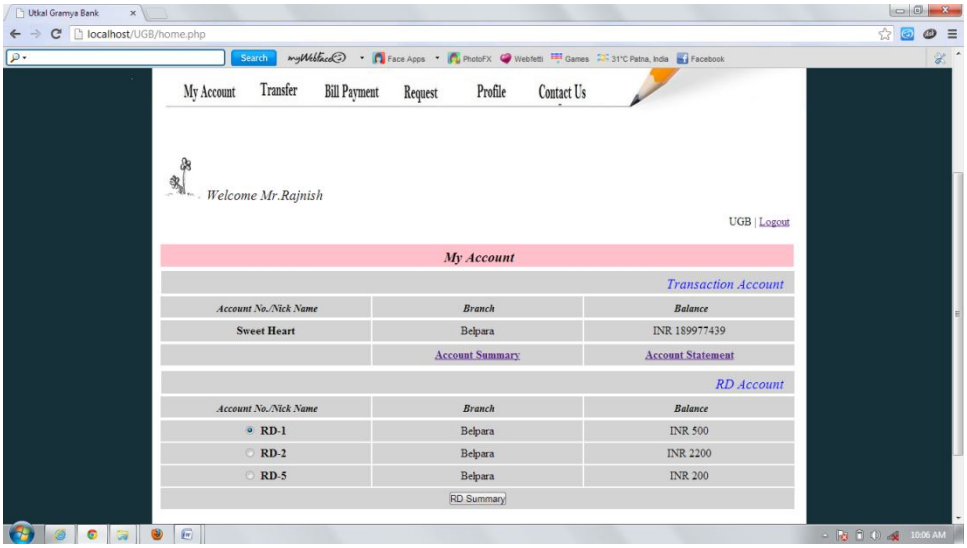

F
1.6
Request
1.6.1
Request
New Account
1.6.2
Request
Saving
Account
1.6.3
Request
Current
Account
1.6.4
Request
Cheque Book

3.12 User Interface Design

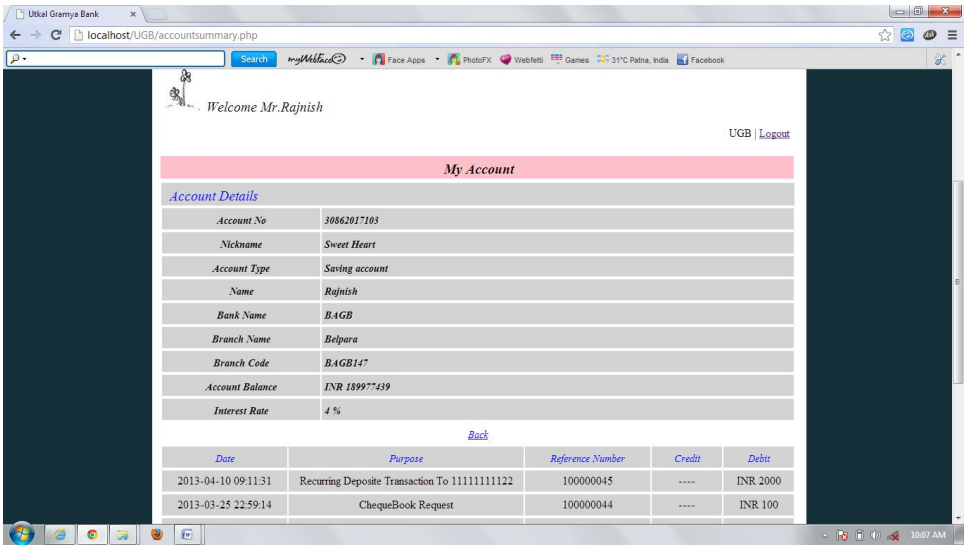
Net Banking Screen:

Login screen:

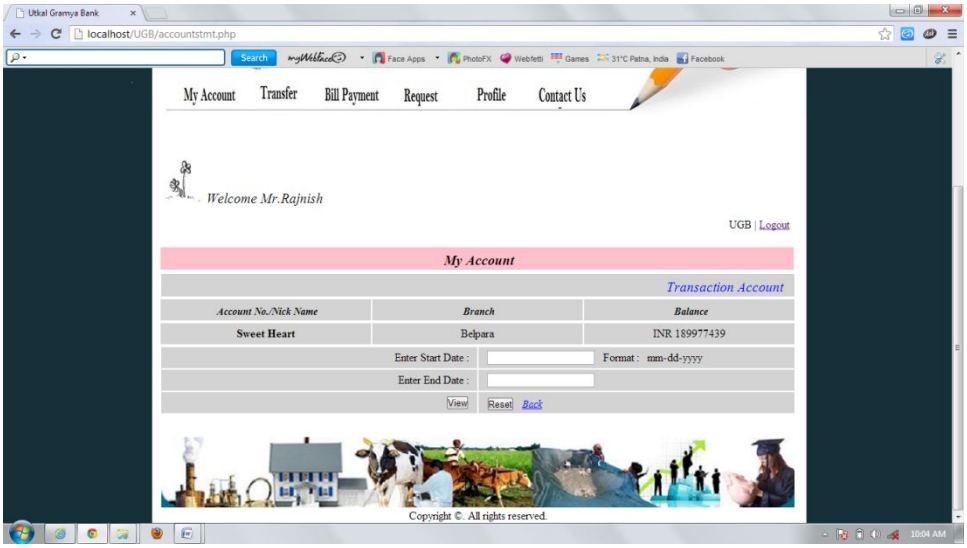
Home Page:



Account Summary:

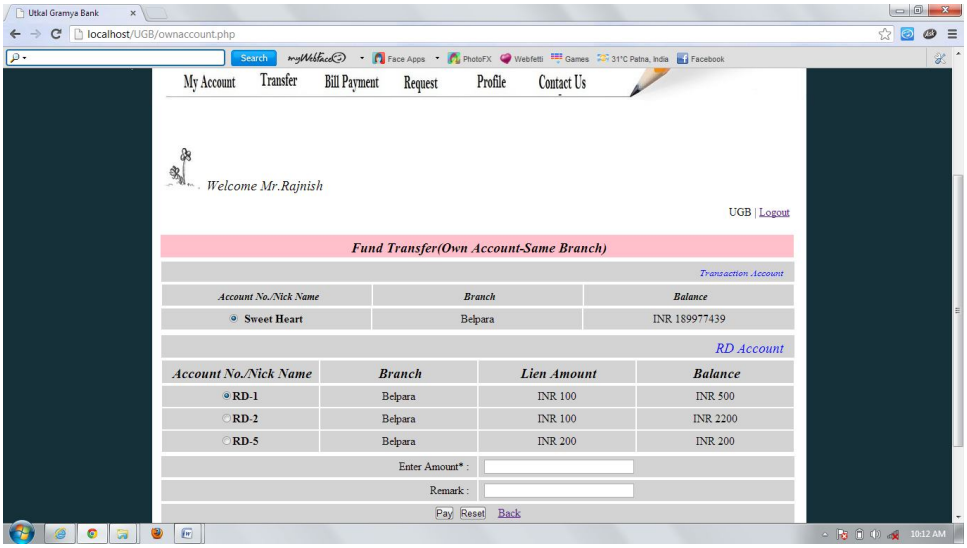


Account statement input:

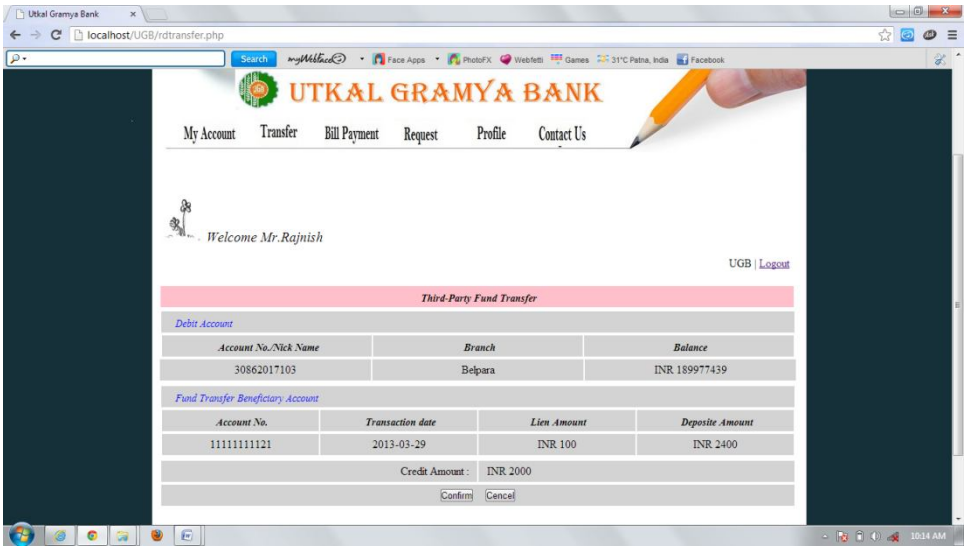


Fund Transfer Menu:

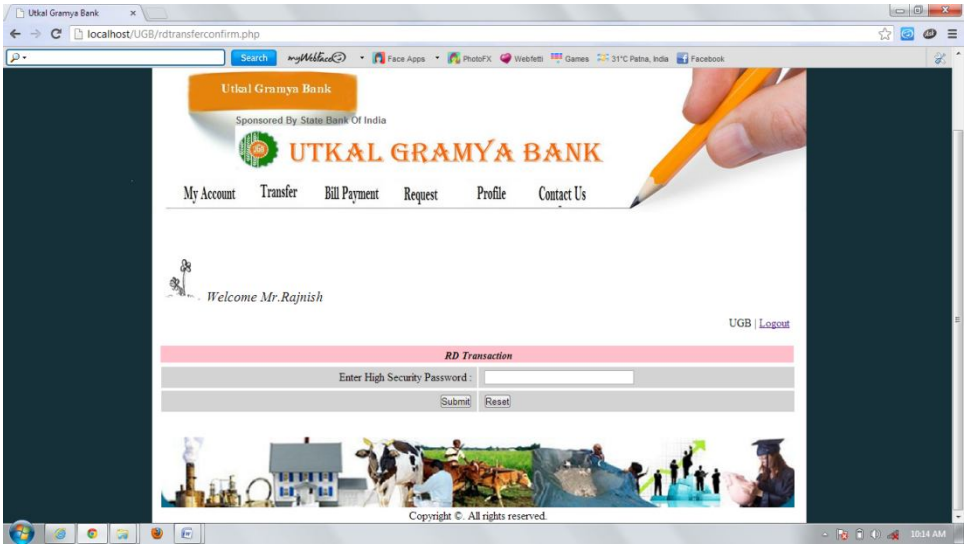
Fund Transfer (Own Account-Same Branch):



Fund Transfer (Own Account-Same Branch) confirm:

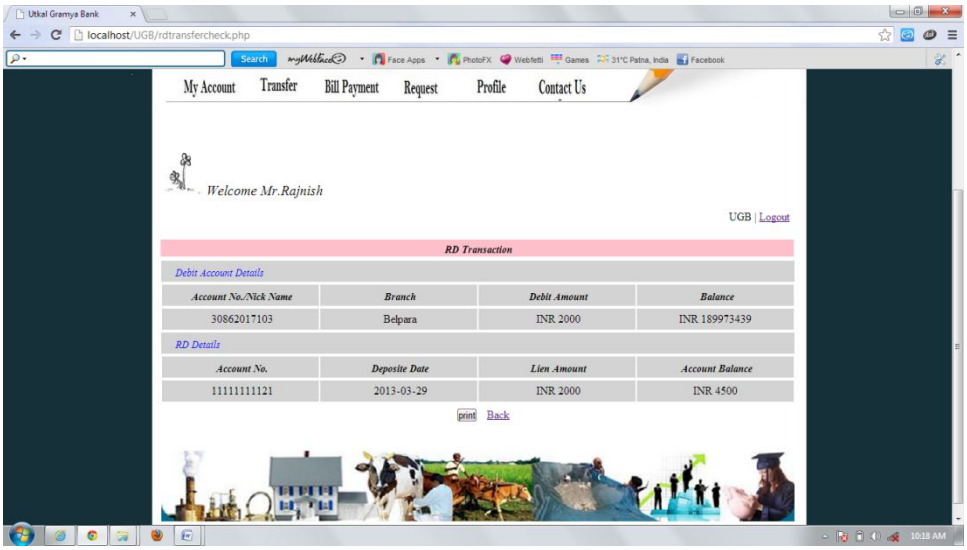


High security password entry:

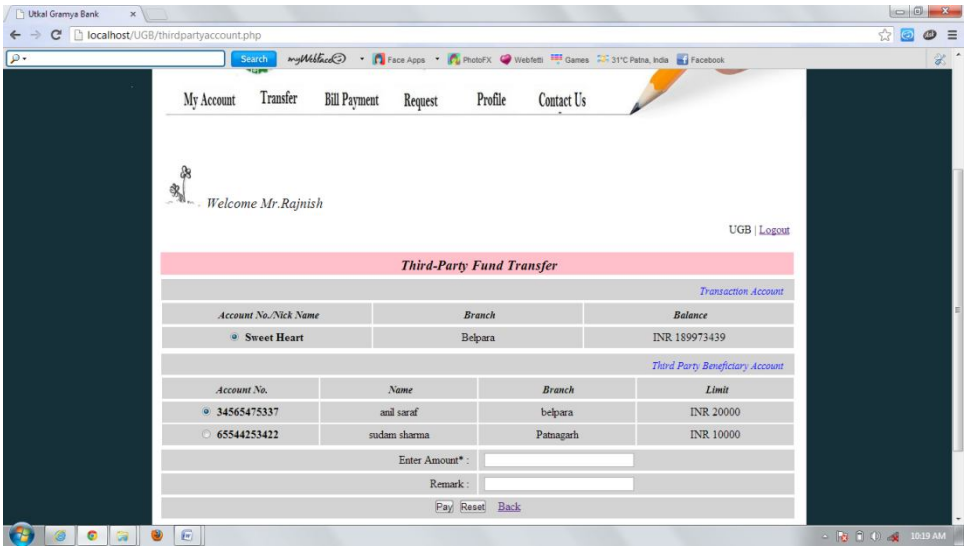


High security password error:

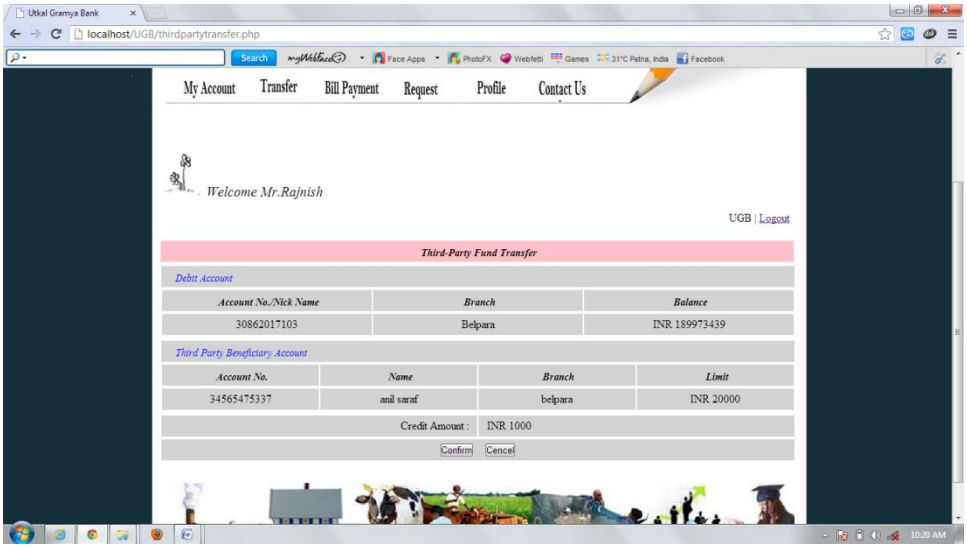
Successful Fund Transfer (Own Account-Same Branch):



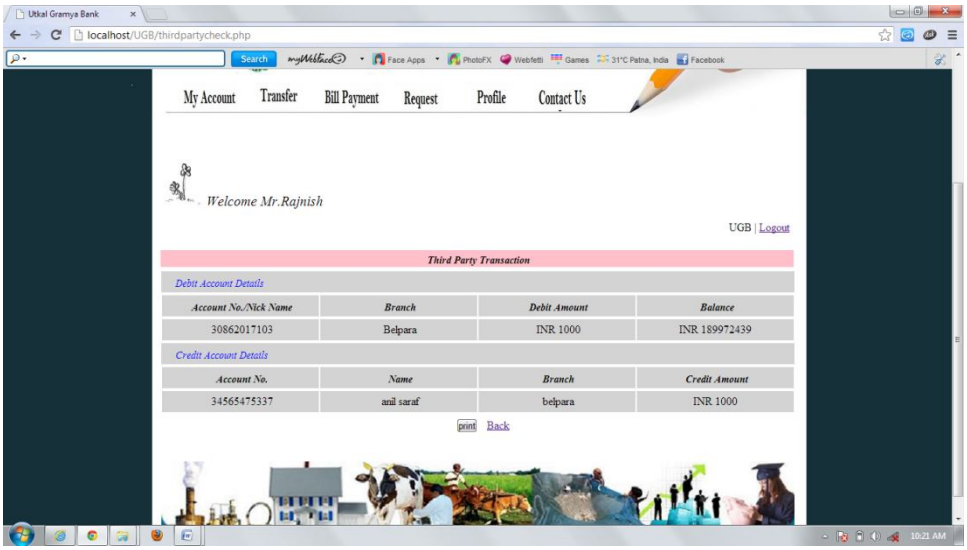
Third Party Fund Transfer:



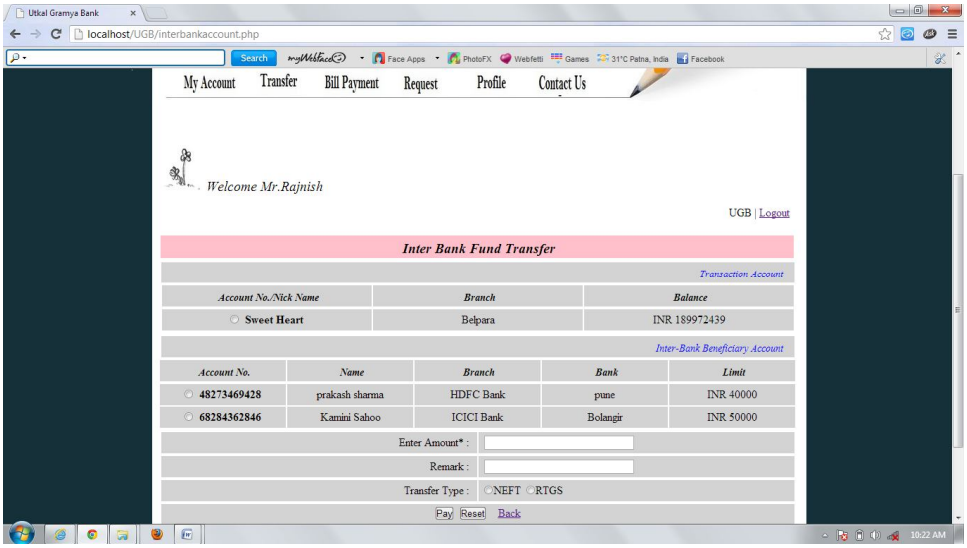
Confirm Third Party Fund Transfer:



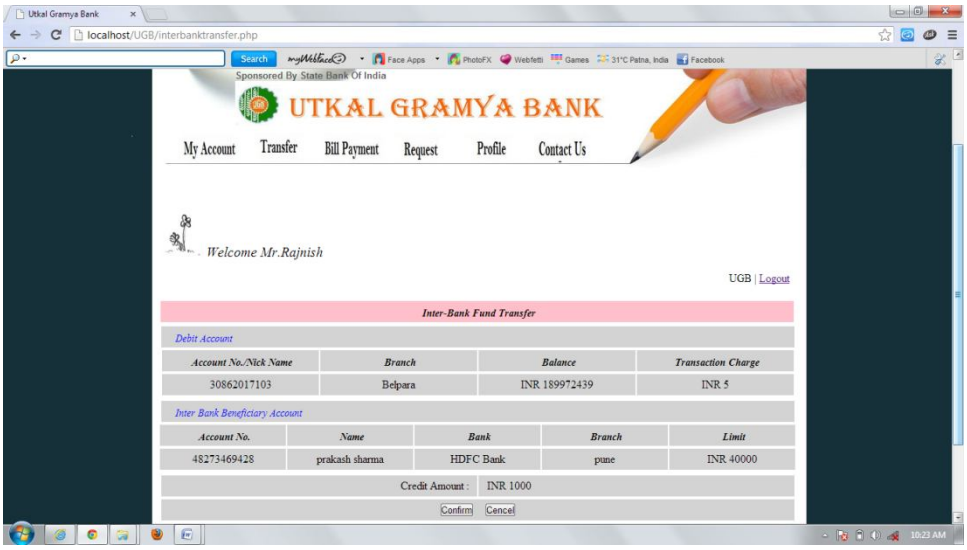
Successful Third Party Fund Transfer:



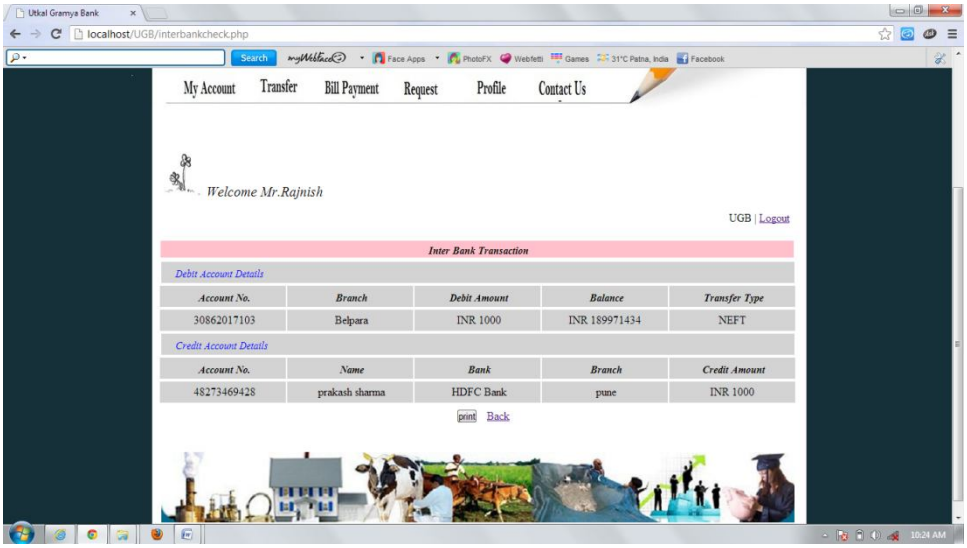
Inter-Bank Fund Transfer:



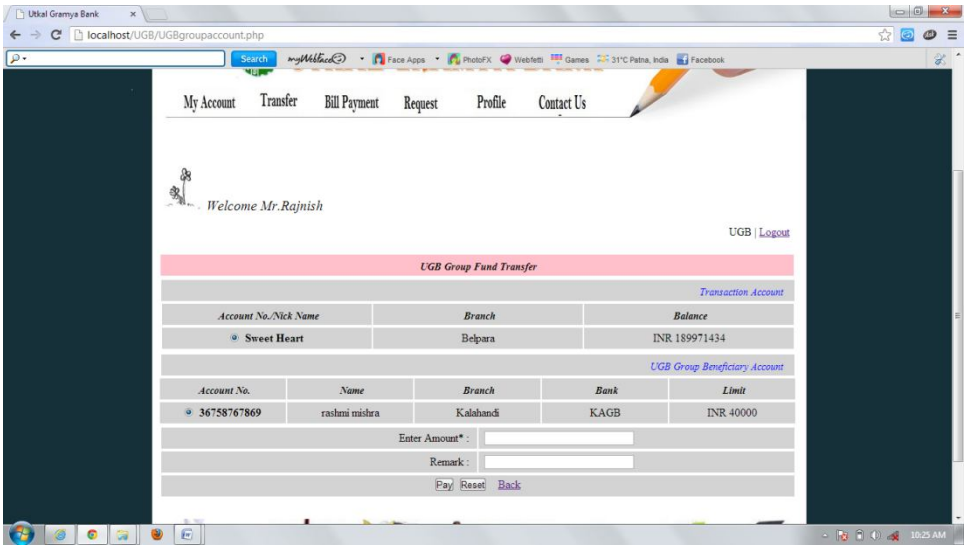
Confirm Inter-Bank Fund Transfer:



Successful Inter-Bank Fund Transfer:



UGB Group Fund Transfer:



Successful UGB Group Fund Transfer:

3.13 Table Specifications

Table Name: User_details

Field Name	Data Type	Constraints	Description
UserID	Varchar (15)	Primary Key	Identifies The User Uniquely
Username	Varchar (20)	NOT NULL	User Full Name
email	Varchar (25)	NOT NULL	User Email Address
mobnum	Bigint (10)	NOT NULL	User Mobile Number
beneficiaryid	Varchar (10)	UNIQUE KEY	Unique ID of User for Manage Beneficiary
billingid	Varchar (10)	UNIQUE KEY	Unique ID of User for Manage Biller
rdid	Varchar (10)	UNIQUE KEY	Unique ID of User for RD Transaction
usertrid	Varchar (10)	UNIQUE KEY	Unique ID of User for Transaction

Table Name: Login_details

Field Name	Data Type	Constraints	Description
Login_id	Varchar(15)	Primary Key	Identify the login id
UserID	Varchar (15)	Foreign Key	Identifies The User Uniquely
loginpassword	Varchar (32)	NOT NULL	User Login Password
profilepassword	Varchar (32)	NOT NULL	User Profile Password For Manage Profile
highsecuritypass	Varchar (32)	NOT NULL	User High Security Password For Transaction

Table Name: Login_attempts

Field Name	Data Type	Constraints	Description
IpAddress	Varchar (20)	Primary Key	Unique IP Address Of Computer
attempts	Int (5)	NOT NULL	Number OF Wrong attempts
date_last_use	datetime	NOT NULL	Time on last attempts
account_block_time	datetime	NOT NULL	Time on which account block
UserID	Varchar (15)	Foreign Key	Identifies The User

Table Name: Account_details

Field Name	Data Type	Constraints	Description
accountno	Bigint (13)	Primary Key	User Unique Account Number
nickname	Varchar (15)	NOT NULL	Account Nick Name
acctype	Varchar (15)	NOT NULL	Type Of Account
bankname	Varchar (20)	NOT NULL	Name of the Bank
branchname	Varchar (15)	NOT NULL	Name Of the Branch
branchcode	Varchar (10)	NOT NULL	IFSC Branch Code
accountbal	double	NOT NULL	Available Account Balance
minbal	float	NOT NULL	Minimum Account Balance
intrate	float	NOT NULL	Interest Rate
UserID	Varchar (15)	Foreign Key	Identifies The User Uniquely

Table Name: rd_details

Field Name	Data Type	Constraints	Description
rdaccno	Bigint (13)	Primary Key	Recurring Deposit Account Number
nickname	Varchar (15)	NOT NULL	RD Account Nick Name
acctype	Varchar (20)	NOT NULL	Account Type
bankname	Varchar (20)	NOT NULL	Bank Name
branchname	Varchar (10)	NOT NULL	Branch name
branchcode	Varchar (7)	NOT NULL	IFSC Branch Code
lienamt	double	NOT NULL	Transfer Amount Per Month
depositeamt	double	NOT NULL	Deposit amount
accountbal	double	NOT NULL	Account Balance
maturityamt	double	NOT NULL	Maturity Amount at the end
intrate	float	NOT NULL	Interest rate
Tenor	Int (11)	NOT NULL	Maturity Period
depositedate	date	NOT NULL	Date of deposit amount
maturitydate	date	NOT NULL	Date of maturity
UserID	Varchar (15)	Foreign Key	Identifies The User Uniquely

Table Name: biller_details

Field Name	Data Type	Constraints	Description
billingid	Varchar (15)	Primary Key	Unique ID of User for Manage Biller
Name	Varchar (40)	NOT NULL	Biller Name
city	Varchar (15)	NOT NULL	Biller City
State	Varchar (15)	NOT NULL	Biller State
Approval	Varchar (20)	NOT NULL	Biller Approval status
trlimit	double	NOT NULL	Transfer Limit
UserID	Varchar (15)	Foreign Key	Identifies The User Uniquely

Table Name: beneficiary_details

Field Name	Data Type	Constraints	Description
beneficiaryaccno	Bigint (15)	Primary Key	Beneficiary Account Number
accountholder	Varchar (20)	NOT NULL	Beneficiary name
bankname	Varchar (15)	NOT NULL	Bank name
branchname	Varchar (15)	NOT NULL	Branch name
branchcode	Varchar (10)	NOT NULL	IFSC Branch Code
beneficiarytype	Varchar (15)	NOT NULL	Beneficiary account type
Approval	Varchar (20)	NOT NULL	Approval Status
trlimit	double	NOT NULL	Transfer Limit
beneficiaryid	Varchar (10)	Foreign Key	Unique ID of User for Manage Beneficiary

Table Name: Login_report

Field Name	Data Type	Constraints	Default	Description
UserID	varchar(20)	Primary Key		Identifies The User Uniquely
Logintime	timestamp	NOT NULL	**CURRENT_TIMESTAMP**	Successful Login Time

Table Name: Transaction_master

Field Name	Data Type	Constraints	Default	Description
transaction no	Bigint (15)	Primary Key		Uniquely Identify the Transaction
Usertrid	Varchar (10)	Foreign Key		Unique ID of User for Transaction
debitaccno	Bigint (15)	NOT NULL		Debit account Number
trdebitamt	double	NOT NULL	0	Debit amount of Debit Account
trcreditamt	double	NOT NULL	0	Credit amount of Debit Account
bnfcreditamt	double	NOT NULL	0	Credit amount of Credit Account
Purpose	Varchar (50)	NOT NULL		Purpose Of Transaction
Trdate	timestamp	NOT NULL	**CURRENT_TIMESTAMP**	Transaction date
Remark	Varchar (30)	NOT NULL		Transaction Remark

Table Name: rd_transaction

Field Name	Data Type	Constraints	Description
rdtransactionno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
rdcreditaccno	Bigint(15)	NOT NULL	Credit account number
trcreditamt	double	NOT NULL	Credit amount of Debit Account
bnfcreditamt	double	NOT NULL	Credit amount of Credit Account
bnfdebitamt	double	NOT NULL	Debit amount of Credit Account

Table Name: thirdparty_transaction

Field Name	Data Type	Constraints	Description
thirdpartytrno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
Thirdcreditcreditaccno	Bigint(15)	NOT NULL	Credit account number
accholdername	Varchar (20)	NOT NULL	Account Holder Name
bankname	Varchar (20)	NOT NULL	Bank Name
branchname	Varchar (20)	NOT NULL	Branch name

Table Name: interbank_transaction

Field Name	Data Type	Constraints	Description
interbanktrno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
interbankcreditaccno	Bigint(15)	NOT NULL	Credit account number
accholdername	Varchar (20)	NOT NULL	Account Holder Name
bankname	Varchar (20)	NOT NULL	Bank Name
branchname	Varchar (20)	NOT NULL	Branch name
trtype	Varchar (10)	NOT NULL	Transaction type

Table Name: ugbgroup_transaction

Field Name	Data Type	Constraints	Description
ugbtrno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
ugbcreditaccno	Bigint(15)	NOT NULL	Credit account number
accholdername	Varchar (20)	NOT NULL	Account Holder Name
bankname	Varchar (20)	NOT NULL	Bank Name
branchname	Varchar (20)	NOT NULL	Branch name

Table Name: billpayment

Field Name	Data Type	Constraints	Description
billtrno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
billername	Varchart(40)	NOT NULL	Biller name
billingno	Bigint (15)	NOT NULL	Billing unique Number

Table Name: request_transaction

Field Name	Data Type	Constraints	Description
requesttrno	Bigint (15)	Primary Key	Uniquely Identify the Transaction
requesttype	Varchar(20)	NOT NULL	Request type

Table Name: new_account_request

Field Name	Data Type	Constraints	Description
requesttrno	Bigint (15)	Foregin Key	Uniquely Identify the Transaction
acctype	Varchar (30)	NOT NULL	Account type

Table Name: cheque_request

Field Name	Data Type	Constraints	Description
requesttrno	Bigint (15)	Foregin Key	Uniquely Identify the Transaction
chequetype	Varchar (20)	NOT NULL	Cheque Book Type
noofbook	Int (5)	NOT NULL	Number Of Cheque Book

Data Dictionary

Sl No.	Field Name	Data Type	Description
1	accholdername	Varchar (20)	Account Holder Name
2	accholdername	Varchar (20)	Account Holder Name
3	accholdername	Varchar (20)	Account Holder Name
4	account_block_time	datetime	Time on which account block
5	accountbal	double	Available Account Balance
6	accountbal	double	Account Balance
7	accountholder	Varchar (20)	Beneficiary name
8	accountno	Bigint (13)	User Unique Account Number
9	Acctype	Varchar (15)	Type Of Account
10	Acctype	Varchar (20)	Account Type
11	Acctype	Varchar (30)	Account type
12	Approval	Varchar (20)	Biller Approval status
13	Approval	Varchar (20)	Approval Status
14	Attempts	Int (5)	Number OF Wrong attempts
15	bankname	Varchar (20)	Name of the Bank
16	bankname	Varchar (20)	Bank Name
17	Bankname	Varchar (15)	Bank name
18	Bankname	Varchar (20)	Bank Name
19	bankname	Varchar (20)	Bank Name
20	Bankname	Varchar (20)	Bank Name
21	beneficiaryaccno	Bigint (15)	Beneficiary Account Number

22	beneficiaryid	Varchar (10)	Unique ID of User for Manage Beneficiary
23	beneficiaryid	Varchar (10)	Unique ID of User for Manage Beneficiary
24	beneficiarytype	Varchar (15)	Beneficiary account type
25	Billername	Varchart(40)	Biller name
26	Billingid	Varchar (10)	Unique ID of User for Manage Biller
27	Billingid	Varchar (10)	Unique ID of User for Manage Biller
28	Billingno	Bigint (15)	Billing unique Number
29	Billtrno	Bigint (15)	Uniquely Identify the Transaction
30	bnfcreditamt	double	Credit amount of Credit Account
31	bnfcreditamt	double	Credit amount of Credit Account
32	bnfdebitamt	double	Debit amount of Credit Account
33	branchcode	Varchar (10)	IFSC Branch Code
34	branchcode	Varchar (7)	IFSC Branch Code
35	branchcode	Varchar (10)	IFSC Branch Code
36	branchname	Varchar (15)	Name Of the Branch
37	branchname	Varchar (10)	Branch name
38	branchname	Varchar (15)	Branch name
39	branchname	Varchar (20)	Branch name
40	branchname	Varchar (20)	Branch name
41	branchname	Varchar (20)	Branch name
42	Chequetype	Varchar (20)	Cheque Book Type

43	City	Varchar (15)	Biller City
44	date_last_use	datetime	Time on last attempts
45	debitaccno	Bigint (15)	Debit account Number
46	depositeamt	double	Deposit amount
47	depositedate	date	Date of deposit amount
48	Email	Varchar (25)	User Email Address
49	highsecuritypass	Varchar (20)	User High Security Password For Transaction
50	interbankcreditaccno	Bigint(15)	Credit account number
51	interbanktrno	Bigint (15)	Uniquely Identify the Transaction
52	Intrate	float	Interest Rate
53	Intrate	float	Interest rate
54	IpAddress	Varchar (20)	Unique IP Address Of Computer
55	Lienamt	double	Transfer Amount Per Month
56	loginpassword	Varchar (15)	User Login Password
57	Logintime	timestamp	Successful Login Time
58	maturityamt	double	Maturity Amount at the end
59	maturitydate	date	Date of maturity
60	Minbal	float	Minimum Account Balance
61	Mobnum	Bigint (10)	User Mobile Number
62	Name	Varchar (40)	Biller Name
63	Nickname	Varchar (15)	Account Nick Name
64	Nickname	Varchar (15)	RD Account Nick Name
65	Noofbook	Int (5)	Number Of Cheque Book

66	profilepassword	Varchar (15)	User Profile Password For Manage Profile
67	Purpose	Varchar (50)	Purpose Of Transaction
68	Rdaccno	Bigint (13)	Recurring Deposit Account Number
69	rdcreditaccno	Bigint(15)	Credit account number
70	Rdid	Varchar (10)	Unique ID of User for RD Transaction
71	Rdid	Varchar (10)	Unique ID of User for RD Transaction
72	rdtransactionno	Bigint (15)	Uniquely Identify the Transaction
73	Remark	Varchar (30)	Transaction Remark
74	Requesttrno	Bigint (15)	Uniquely Identify the Transaction
75	Requesttrno	Bigint (15)	Uniquely Identify the Transaction
76	Requesttrno	Bigint (15)	Uniquely Identify the Transaction
77	Requesttype	Varchar(20)	Request type
78	State	Varchar (15)	Biller State
79	Tenor	Int (11)	Maturity Period
80	thirdcreditcreditaccno	Bigint(15)	Credit account number
81	thirdpartytrno	Bigint (15)	Uniquely Identify the Transaction
82	transactionno	Bigint (15)	Uniquely Identify the Transaction
83	trcreditamt	double	Credit amount of Debit Account
84	Trcreditamt	double	Credit amount of Debit Account

85	Trdate	timestamp	Transaction date
86	trdebitamt	double	Debit amount of Debit Account
87	Trlimit	double	Transfer Limit
88	Trlimit	double	Transfer Limit
89	Trtype	Varchar (10)	Transaction type
90	ugbcreditaccno	Bigint(15)	Credit account number
91	Ugbtrno	Bigint (15)	Uniquely Identify the Transaction
92	UserID	Varchar (15)	Identifies The User Uniquely
93	UserID	Varchar (15)	Identifies The User Uniquely
94	UserID	Varchar (20)	Identifies The User Uniquely
95	UserID	Varchar (15)	Identifies The User Uniquely
96	UserID	varchar(20)	Identifies The User Uniquely
97	Username	Varchar (20)	User Full Name
98	Usertrid	Varchar (10)	Unique ID of User for Transaction
99	Usertrid	Varchar (10)	Unique ID of User for Transaction

3.14 Test procedures and Implementation

Introduction:

A system should always be tested thoroughly before implementation, as regards its individual program. Effective testing early in the process translates directly into long term cost saving from reduced number of errors. This is also necessary because in some cases a small error is not detected and corrected before installation, which may explode into much larger problem.

Software testing is a critical element of Software Quality Assurance and represents the ultimate review of specification, design and coding. The purpose of the product testing is to verify and validate the various work products viz. Units, integrate unit, final product to ensure that they meet their respective requirements.

Testing procedure:

Testing will be performed by running the program using the test data. Testing is vital to the success of the system. It will also test whether the system identify the problem correctly.

System is tested by following steps:

Unit Testing:

Each program is tested individually using dummy records to see whether that program products satisfactory reports.

Integration Testing:

The program, whose output will affect the processing done by another program, will be tested using dummy records.

System Testing:

The system is corrected in such a way that it does not affect the forced system failure. This testing is done with low volume of data.

Testing Strategies:

The test strategy consists of a series of different tests that will fully exercise the System. The primary purpose of the test is to uncover the system error and limitations.

Following are the several tests that will be conducted:

Unit/Module Testing

Unit Testing conducted to verify the implementation of the design for one software element (e.g. unit, module) is to ensure that the program logic is complete, correct and ensuring that the component works as designed.

In this testing each unit will go through Unit testing after the completion of the module. The bugs in module testing will be reported in Test Log document and will be reported to the developers. After fixing the bugs successfully, one or more iteration of Unit testing (Regression testing) is done. This process is repeated till all critical test cases pass.

Integration Testing

Testing conducted in which software elements, hardware elements, or both are combined and tested until the entire system has been integrated. The purpose of integration testing is to ensure that design objectives are met and ensures that the software, as a complete entity, complies with operational requirements. This type of testing will be done after all module test cases are passed through the unit testing, security testing, performance testing, user interface testing, and regression testing.

User Interface Testing

Testing done to ensure that the application operates efficiently and effectively on each client machine.

Security Testing

The client needs to enter his login id and password. If the username and password is valid then only the client is allowed to login in. To transfer fund and do any transaction high security password is required.

Performance Testing

In developing the system, we are going to use PHP which will reduce the response time. In performance testing we are going to test response time for each Screen.

Regression Testing

Regression testing done to ensure that the changes to the application have not adversely affected previously tested functionality. Here testing will take care of the test cases passed during the first unit testing will not be affected in the subsequent rounds of Unit testing.

Acceptance Testing

This testing id conducted to determine whether the modules satisfy the acceptance criteria of the user. It enables the customer to determine whether or not to accept the system. Acceptance testing ensures that customer requirements and met the acceptance criteria.

Test Plan:

The Test Plan is designed to describe the scope, approach, resources, and schedule of all testing activities. The Test plan identifies the items to be tested like Authentication, the features to be tested like (for Authentication module) whether user is having privilege to login to the system or not, the types of testing to be performed like Unit Testing, Security Testing, User Interface Testing, Performance Testing, Regression Testing, the resources required to perform testing.

Tools:

Testing is performed manually without using any automated tools.

Test cases:

Test Case Identification

Title	User Id validation	**Test Case Author**	Rajnish	**Date**	**29-03-2013**
Objective or Description : To Validate User ID					
#Test Conditions:	**8**	**Cumulative Hrs. Required to Write Test Cases**	**½ hr**	**Hrs. Required to Perform Test:**	**1hr**

Pre-Condition
User Has to Select Personal Banking.
Database Should there to check User ID
Login Screen Opened.

Test case Overview

Test Definition				**Test Execution**		
Sl. No.	**Test Condition**	**Input data**	**Expected result**	**Actual results**	**Status P/F ?**	**Remark**
1.	User ID field cannot Blank	<Blank>	Show Error message	Error message displayed	Pass	
2.	User ID field not accept space	Rajnish	Show Error Message	Error message displayed	Pass	
3.	User ID field not accept space	Rajnish	Successful Login	Successful Login	Pass	

4.	User ID accept alphabet , numeric and _	Rajnish_kumar	Successful Login	Successful Login	Pass	
5.	User ID accept alphabet , numeric and _	Rajnish@kumar	Show Error Message	Error message displayed	Pass	
6.	User ID accept alphabet , numeric and _	Rajnish123	Successful Login	Successful Login	Pass	
7.	User ID must save in Date base (Input User ID and saved User ID in Database is same)	Enter correct User ID	Successful Login	Successful Login	Pass	
8.	User ID must save in Date base	Enter incorrect User ID	Show Error Message	Error message displayed	Pass	

	(Input User ID and saved User ID in Database is same)					

Post-Condition
After successful login user is allowed to move further
Failure to login keeps user in Login Page

Test Case Identification

Title	Login Password validation	**Test Case Author**	Rajnish	**Date**	**29-03-2013**
Objective or Description : To Validate Login Password					

#Test Conditions:	**17**	**Cumulative Hrs. Required to Write Test Cases**	**1 hr**	**Hrs. Required to Perform Test:**	**1½ hr**

Pre-Condition
User Has to Select Personal Banking.
Database Should there to check Login Password
Login Screen Opened.

Test Definition				Test Execution		
Sl. No.	**Test Condition**	**Input data**	**Expected result**	**Actual results**	**Status P/F ?**	**Remark**
1.	Password field cannot Blank	<Blank>	Show Error message	Error message displayed	Pass	
2.	Password contain minimum 8 character	31a313@	Show Error Message	Error message displayed	Pass	
3.	Password contain minimum 8 character	31a313@dc	Successful Login	Successful Login	Pass	
4.	Password contain maximum 20 character	More than 20 character	Show Error Message	Error message displayed	Pass	
5.	Password contain maximum 20 character	In between 8 & 20 character	Successful Login	Successful Login	Pass	
6.	Password contain at least 1 character	31313@12	Show Error Message	Error message displayed	Pass	
7.	Password contain at least 1 character	31313@12ranj	Successful Login	Successful Login	Pass	
8.	Password contain at least 1 number	Rajnish12@kumar	Successful Login	Successful Login	Pass	
9.	Password contain at least 1 number	rajnish@kumar	Show Error Message	Error message displayed	Pass	
10.	Password contain at least 1 Special character	Rajnish123@	Successful Login	Successful Login	Pass	
11.	Password contain at least 1 Special character	Rajnish123	Show Error Message	Error message displayed	Pass	
12.	Login Password must save in Date base (Input Login Password and saved Login Password in Database	Enter correct Login Password	Successful Login	Successful Login	Pass	

	is same)					
13.	Login Password must save in Date base (Input Login and saved Login in Database is same)	Enter incorrect Login Password	Show Error Message	Error message displayed	Pass	
14.	Wrong attempt 3 times	Enter Incorrect Password for 3 times	Account Block for 1 day	Account block message displayed	Pass	
15.	Wrong attempt 3 times 4^{th} attempt is correct on a day	Correct password Entered	Account Block for 1 day	Account block message displayed	Pass	
16.	On next day correct attempt	Correct password Entered	Successful Login	Successful Login	Pass	
17.	Password is in ** format	**********	Successful Login	Successful Login	Pass	

4
User ManUal

4.1 User manual

Registration:

- Open “Utkal Gramya Bank” homepage on browser.
- Click on “Net Banking”.
- Click on New User Registration link.
- Click on Download Internet banking form link.
- Download Registration form, take print out and then fill it.
- Submit the filled form in home branch.
- Registration details are verified by Administrator
- Received user id, login password, profile password and High security password.

Login:

- Open “Utkal Gramya Bank” homepage on browser.
- Click on “Net Banking”.
- Click On Personal banking
- Enter Correct User ID and Login Password
- Click On Submit
- Display home page of Personal Banking

Account Summary:

- Login in to Personal banking
- Click On My Account
- For Transaction Account Click On Account Summary
- For RD Summary Select RD Account and Click on RD Summary
- Display Account Details and Last 10 Transaction

Account Statement:

- Login in to Personal banking
- Click On My Account
- For Transaction Account Click On Account Statement
- Enter Start date and End Date and click on View
- Display Transaction details between start and end date

Fund Transfer:

- Login in to Personal banking
- Click On Transfer Menu

- Select Type Of Fund Transfer
    - Fund Transfer (Own Account-Same Branch)
    - Third-Party Fund Transfer
    - Inter-bank Fund transfer
    - UGB Group Fund Transfer
- Select Debit Account
- Enter Amount
- Select Debit Account
- In Case of Inter-bank Transfer select Transfer type
    - NEFT
    - RTGS
- Select Pay and Confirm The Payment
- Enter high Security Password
- Fund transfer successfully done if all condition satisfied
- Display Fund transfer Details
- Click on sign out

Bill Payment:

- Login in to Personal banking
- Click On Bill Payment Menu
- Select Pay bill link
    - Select the Biller from Approved Biller List
    - Enter Bill Amount
    - Select Pay and confirm the payment
    - Enter High Security password
    - Bill Payment done successfully if all condition satisfied
    - Display bill Payment Details
- Select Manage biller link
    - Add the biller
    - Enter Billing details
    - View the biller
    - Modify the biller
    - Delete the biller

- Biller is approved by Administrator
- Biller Successfully Added

- Click on Sign Out

Request:

- Login in to Personal banking
- Click On Request Menu
- Select RD link
  - Select Debit Account
  - Enter RD Details
  - Select Submit and Confirm RD Request
  - RD Account Successfully Created
- Select New Account link
  - Select New Account Type
    - ✓ Saving Account
    - ✓ Current Account
    - ✓ Fixed Deposit Account
  - Select Debit Account

- Enter New Account Details
- Select Submit and Confirm New Account Request
- Request send for Approval process

- Select Cheque Book link
  - Select Cheque book Type
    - ✓ Barer cheque
    - ✓ Order cheque
  - Select Debit Account
  - Enter Cheque Details
  - Select Submit and Confirm Cheque Request
  - Cheque Book Successfully deliver within 7 days

- Click on Sign Out

Profile Maintain:

- Login in to Personal banking
- Click On Profile Menu
- Enter Profile Password
- Select Personal details link
    - Edit Name, E-Mail, and Mobile number
    - Personal details successfully updated
- Select Account nick name link
    - Select Account
    - Edit the nickname
    - Nick name update successfully
- Select Manage Beneficiary link
    - Select Beneficiary Type
        - ✓ Third-Party beneficiary
        - ✓ UGB Group Beneficiary
        - ✓ Inter-bank Beneficiary
    - Add new beneficiary by adding beneficiary details

- View added beneficiary details
- Modify added beneficiary details
- Delete added beneficiary
- In case of add and modify beneficiary the request is send for approval process
- Display beneficiary details

- Select Change Password link
  - Select Password Type
    - ✓ Login Password
    - ✓ Profile Password
    - ✓ High Security Password
  - Change Password
  - Update Changed Password successfully

- Click on Sign Out

Contact Us:

- Login in to Personal banking
- Click On Contact Us Menu
- Display Contact details

4.2 Operations manual / menu explanation

Operations Manual:

Registration: - Download the registration form and register the account for internet banking and receive the User ID and Password.

Login: - Enter correct user id and login password and log into the system. Use Virtual keyboard for safety login.

Account summary: - Select the transaction account and view the details of account and last 10 transactions also.

RD summary: - Select the RD account and view the details of RD account and last 10 transactions also.

Account statement: - Select the transaction account, enter start and end date and view the transactions details within specified dates.

Fund Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in same branch-own account.

Third-party Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in different branch-same bank and different user.

Inter-bank Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in different bank account and different user.

UGB Group Transfer:- Select debit account and credit account, Enter debit amount and transfer fund in UGB Group account and different user.

Manage Biller:- Add, view, delete and modify many categories of biller like insurance, electricity, telephone billers for bill payment.

Bill Payment:- Select registered biller and pay the bill amount.

Request for RD:- Select Debit account and debit amount and request for RD Account .

Request for New Account:- Select debit account, enter debit amount and select new account type and send request for opening an account.

Request for Cheque book:- Select debit account, enter cheque book details and send request for cheque book.

Maintain personal details :- Edit User name, E-mail id and Mobile number.

Set Account Nick Name:- Edit Account Nick name.

Change Password:- Change the login, profile and High security Password.

Manage Beneficiary:- Add, delete, View and Modify the Beneficiary account.

Contact US:- View the Contact information of the Bank.

Menu Explanation:

- ✓ **Net Banking**
  - ❖ Login
    - o **Personal Banking**
      - ✓ **My Account**
        - ➢ Account Summary
        - ➢ Account Statement
        - ➢ RD Summary
      - ✓ **Transfer**

- Fund Transfer
- Third-Party Transfer
- Inter-bank Transfer
- UGB Group transfer

✓ **Bill Payment**

- Manage biller
  - Add biller
  - View biller
  - Delete biller
  - Modify biller
- Pay Bill

✓ **Request**

- Request RD
- Request New Account
  - Saving Account
  - Current Account
  - Fixed Deposit Account
- Request Cheque Book
  - Barer Cheque
  - Order Cheque

✓ **Profile**

- Personal details
- Set Nickname
- Manage beneficiary

- Third-party beneficiary
  - Add
  - View
  - Delete
  - Modify
- Inter-Bank beneficiary
  - Add
  - View
  - Delete
  - Modify
- UGB Group beneficiary
  - Add
  - View
  - Delete
  - Modify

➢ Change password

- Login password
- Profile Password
- High security password

✓ **Contact Us**

4.3 Program Specifications

Home and Login

This Menu with home page will be displayed when user enters specified URL (http://localhost:8080/Ugb/). There will also have the login screen on the right hand side where Admin and User can login with their username and password. Visitors are not allowed to log in they only can have look at the home page.

Both username and password are mandatory. This menu and page displayed only two times after log out and before log in.

Logout

After every successful login the User and Admin can see the link at top-right hand side naming Log Out. They can logout from the system at any time. And successful logout message is displayed to them

Registration:

- Open “Utkal Gramya Bank” homepage on browser.
- Click on “Net Banking”.
- Click on New User Registration link.
- Click on Download Internet banking form link.
- Download Registration form, take print out and then fill it.
- Submit the filled form in home branch.
- Registration details are verified by Administrator
- Received user id, login password, profile password and High security password.

Login:

- Open “Utkal Gramya Bank” homepage on browser.
- Click on “Net Banking”.
- Click On Personal banking
- Enter Correct User ID and Login Password
- Click On Submit
- Display home page of Personal Banking

Account Summary:

- Login in to Personal banking
- Click On My Account
- For Transaction Account Click On Account Summary
- For RD Summary Select RD Account and Click on RD Summary
- Display Account Details and Last 10 Transaction

Account Statement:

- Login in to Personal banking
- Click On My Account
- For Transaction Account Click On Account Statement
- Enter Start date and End Date and click on View
- Display Transaction details between start and end date

Fund Transfer:

- Login in to Personal banking
- Click On Transfer Menu

- Select Type Of Fund Transfer
    - Fund Transfer (Own Account-Same Branch)
    - Third-Party Fund Transfer
    - Inter-bank Fund transfer
    - UGB Group Fund Transfer
- Select Debit Account
- Enter Amount
- Select Debit Account
- In Case of Inter-bank Transfer select Transfer type
    - NEFT
    - RTGS
- Select Pay and Confirm The Payment
- Enter high Security Password
- Fund transfer successfully done if all condition satisfied
- Display Fund transfer Details
- Click on sign out

Bill Payment:

- Login in to Personal banking
- Click On Bill Payment Menu
- Select Pay bill link
    - Select the Biller from Approved Biller List
    - Enter Bill Amount
    - Select Pay and confirm the payment
    - Enter High Security password
    - Bill Payment done successfully if all condition satisfied
    - Display bill Payment Details
- Select Manage biller link
    - Add the biller
    - Enter Billing details
    - View the biller
    - Modify the biller
    - Delete the biller

- Biller is approved by Administrator
- Biller Successfully Added

- Click on Sign Out

Drawbacks and limitations

The current system suffers from few drawbacks and limitations which are listed below:

- If accidently, the user forgets his userid or/ and password, in that case there is no any 'UserID & Password Recovery Procedure' that would help him recover his ID and passwords. User has to contact the branch for more information and recovery.
- Not all biller are added yet in the system.
- The current system lack of SSL security encryption technique.
- This bank is not yet registered with all shopping payment sites.
- The registration is done manually.

- To add a beneficiary user must know the IFSC code of the beneficiary branch. The online IFSC code search facility is not available.

Proposed Enhancements

Registration:

The registration process is done online. User fills the details of account online and submits the form . Bank administrator verifies the form and approved for net banking facilities.

Transaction process:

In future the high security password or one-time random password is send to the registered mobile for transaction verification.

Request for Demand Draft:

The request for online demand draft facility will provide.

Corporate Banking :

Corporate banking facility will provide in future.

SMS Alert :

All the transaction alerts and available balance details send to the registered mobile number.

Credit card Bill Payment :

Credit card (Visa) Bill payment services will provide in future.

Demat account :

Demate account facilities will provide in future.

Online Recharge :

Online recharge of mobile and DTH will provide in future.

Conclusions

After completing the project we are sure that problem in the existing system would be overcome. People who are looking for an online comprehensive solution to issue internet banking and related online services will definitely be completed by our system named- "Online Utkal Gramya Bank".

Many of the services like online shopping, online fund transfer, NEFT/RTGS fund transfer, UGB Group fund transfer, Online Bill payment, Online request for Recurring deposit, Saving, Current and Fixed deposit account and online request for cheque book is done successfully and efficiently.

This system provides high security at the time of transaction in future after implementation of SSL encryption technique and one-time password generation technique.

This system provides very easy, effective, efficient and highly secures way of banking transaction. Any changes that may lead to system failures are prevented with security measures.

The system has been in such a way that it can modified with least effort when such a need arises in the future.

To conclude the project “Online Utkal Gramya Bank” I would like to mention that the developed modules have been found effective and efficient as per the overall performance of the server and it has a huge value in banking fields and is supposed to be high in demand as per the requirement of Utkal Gramya Bank. As the customer of the bank increased rapidly “Online Utkal Gramya Bank” system helps the bank to provide proper and effective service to the each and every customer and fulfil all requirements of every customer.

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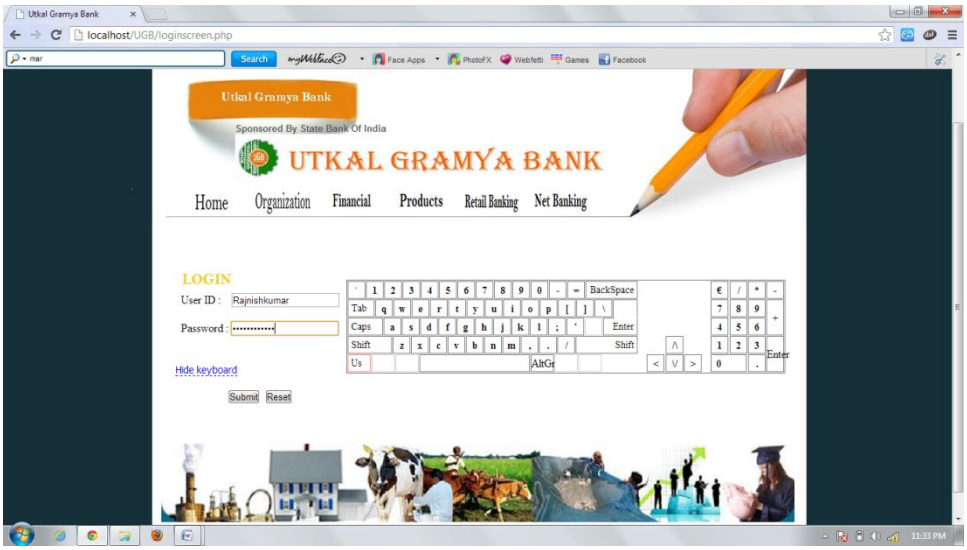
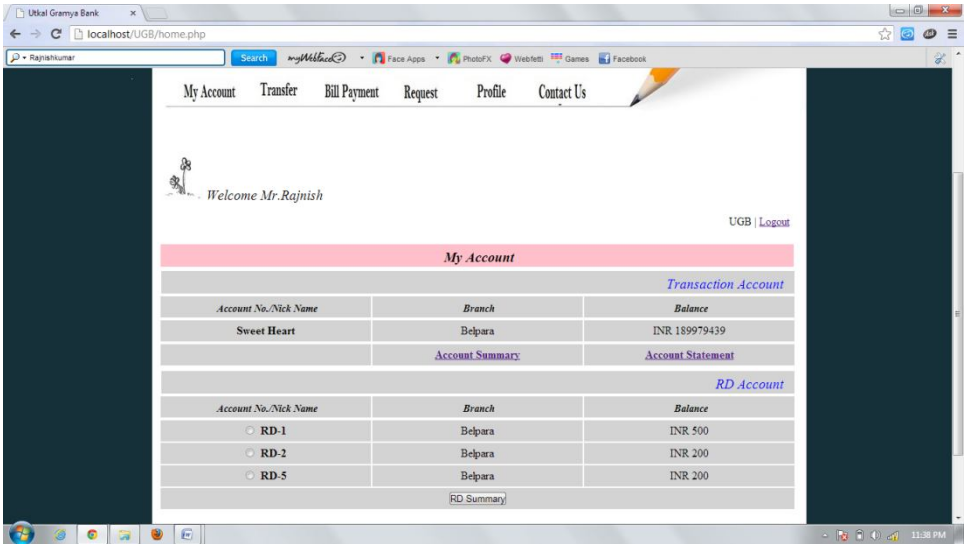
Annexure 1:User Interface Screens
Forms and reports

Net Banking Screen:

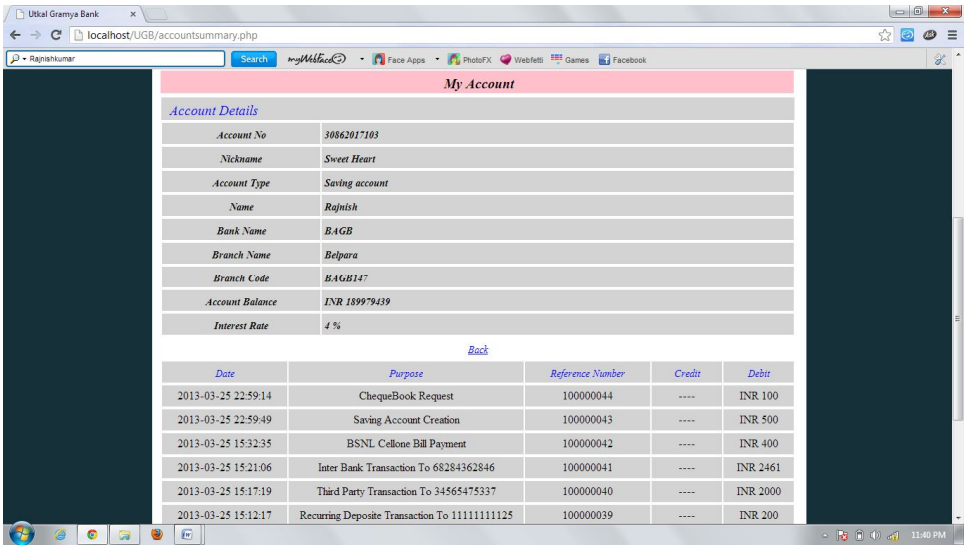
Login screen:



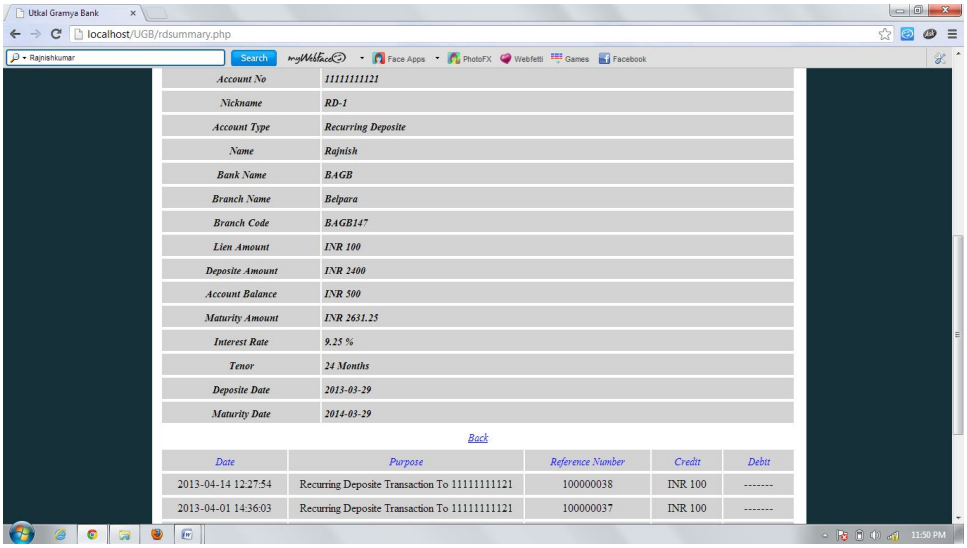
Home Page:



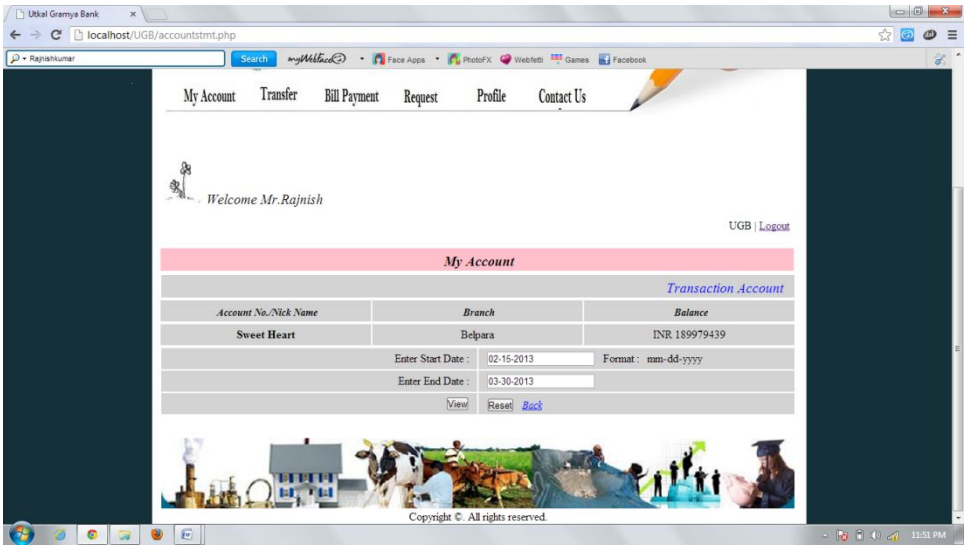
Account Summary:



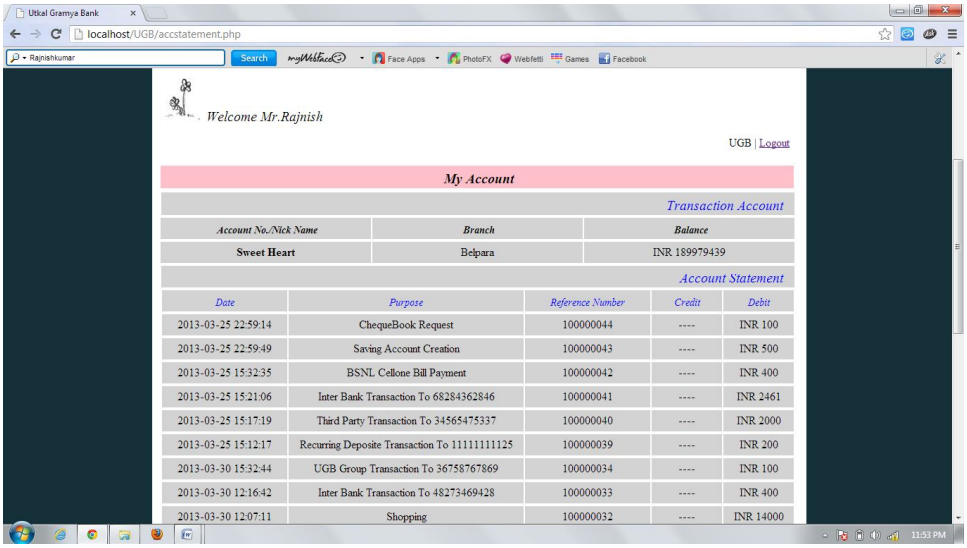
RD Summary:



Account statement input:

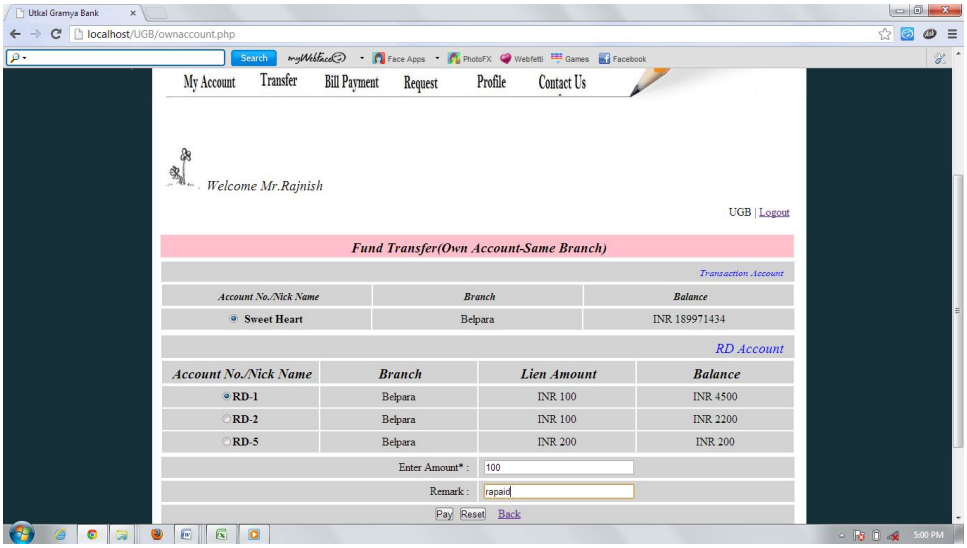


Account statement Result:

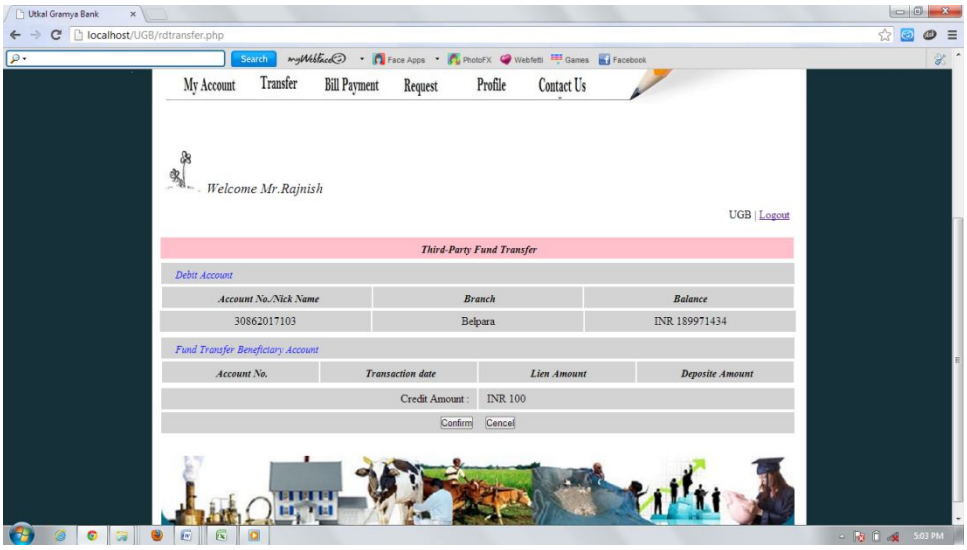


Fund Transfer Menu:

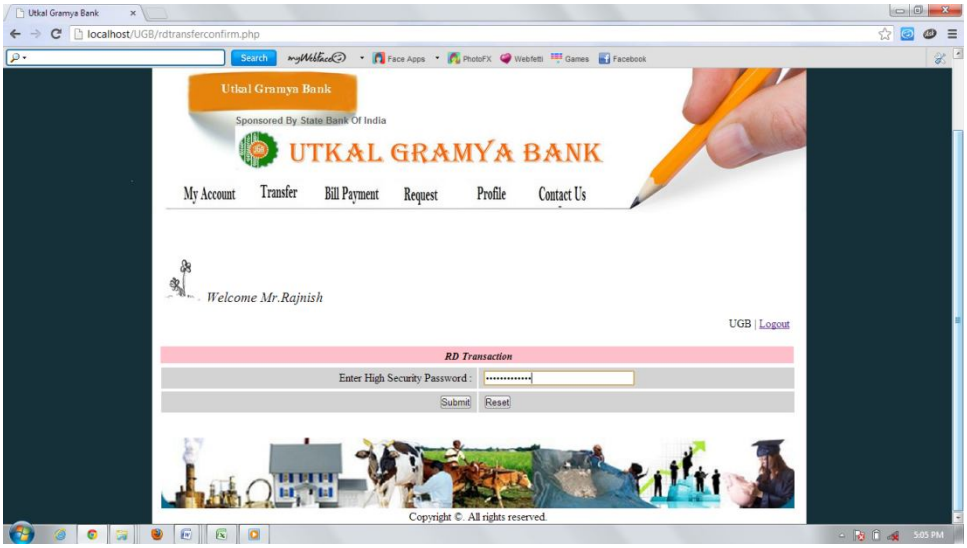
Fund Transfer (Own Account-Same Branch):



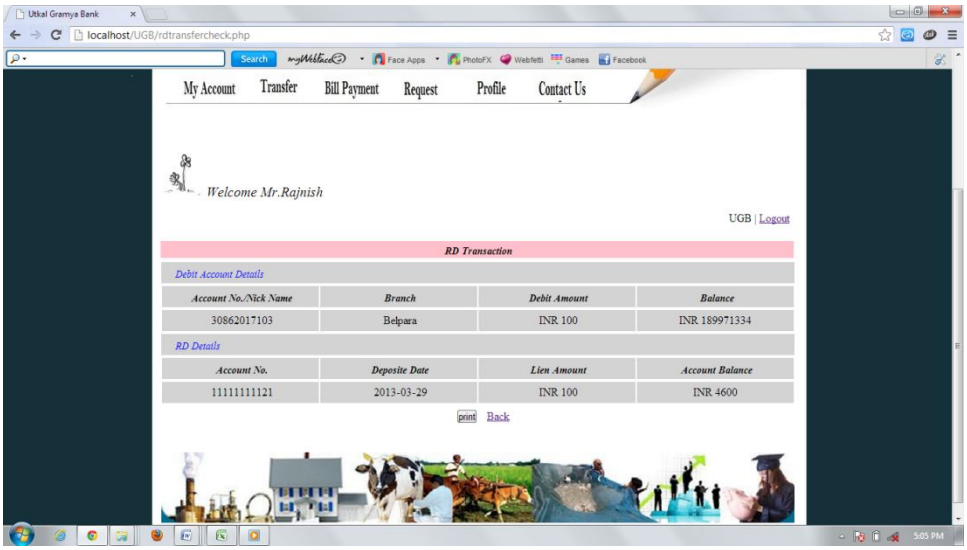
Fund Transfer (Own Account-Same Branch) confirm:



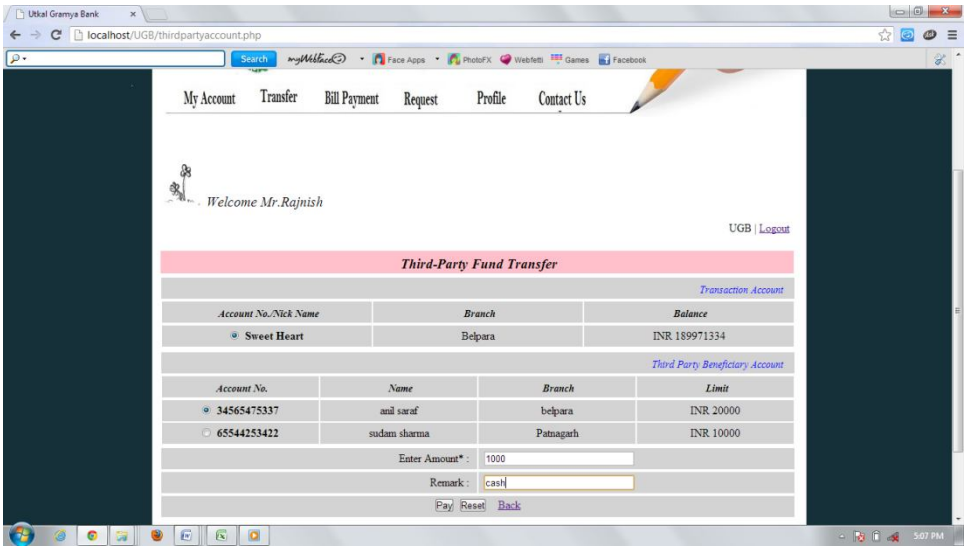
High security password entry:



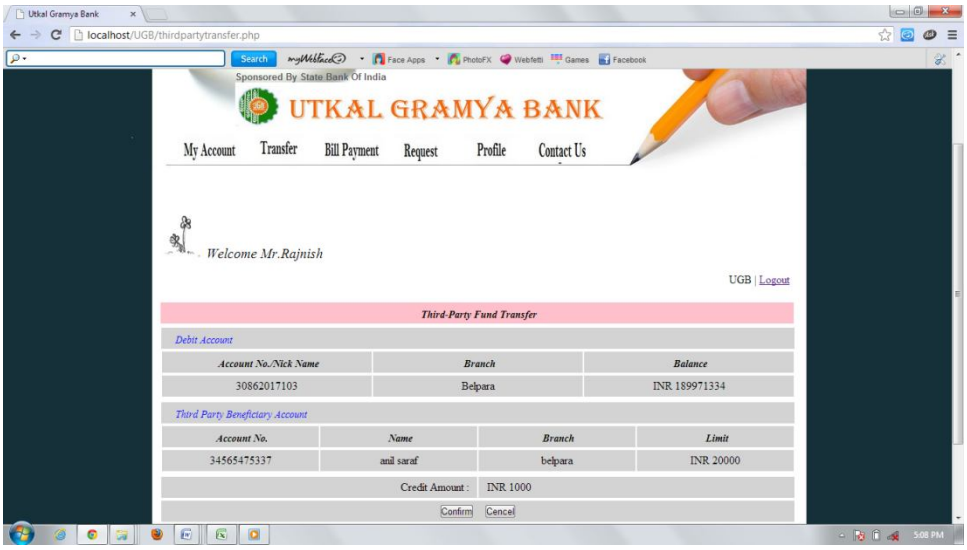
Successful Fund Transfer (Own Account-Same Branch):



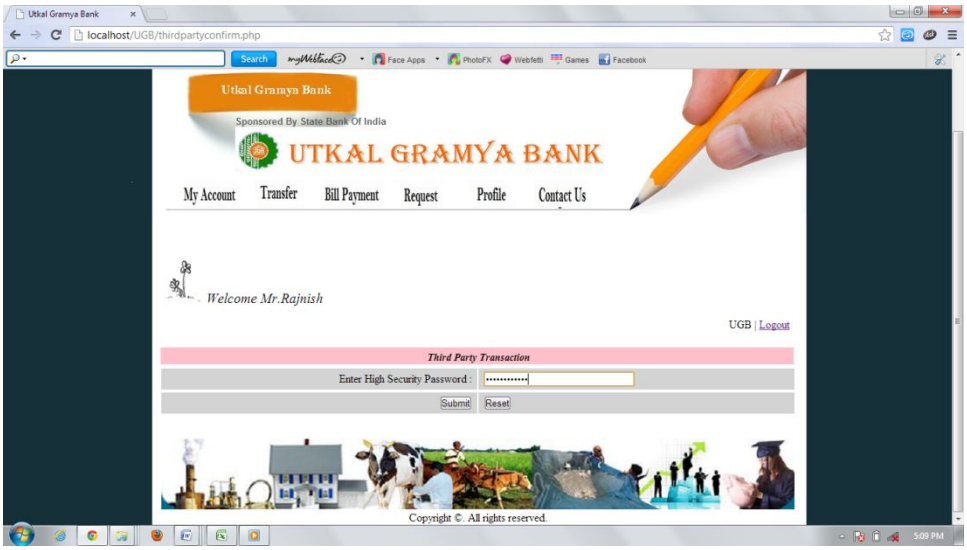
Third Party Fund Transfer:



Confirm Third Party Fund Transfer:

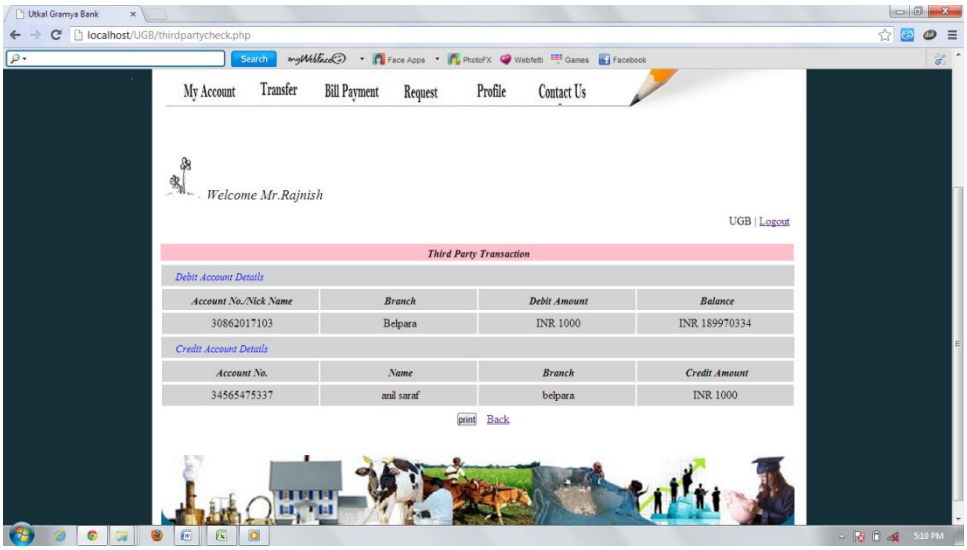


High security password entry:

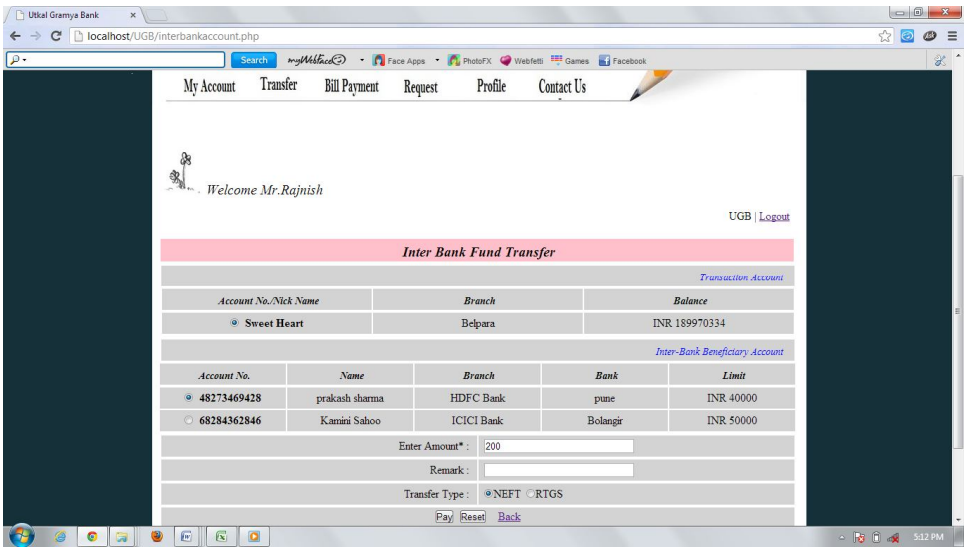


High security password entry error:

Successful Third Party Fund Transfer:



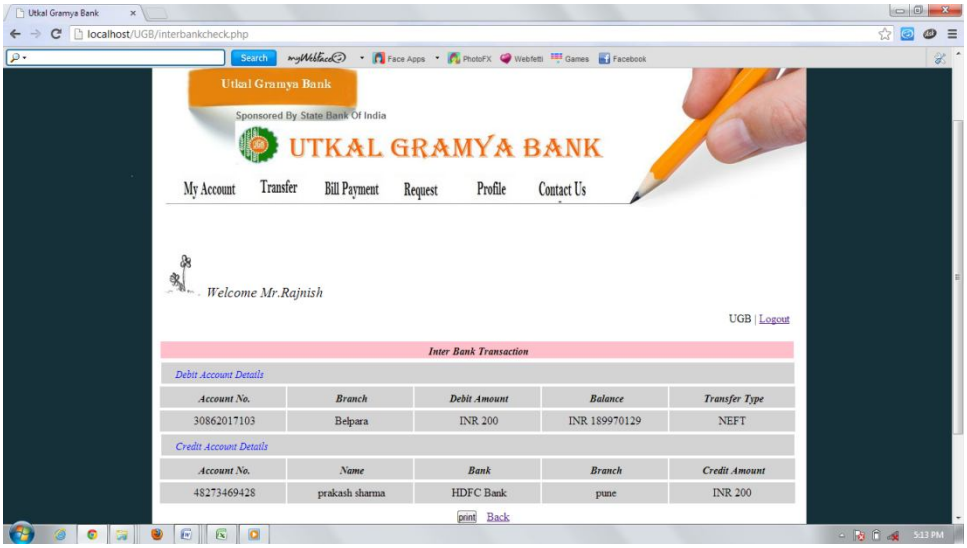
Inter-Bank Fund Transfer:



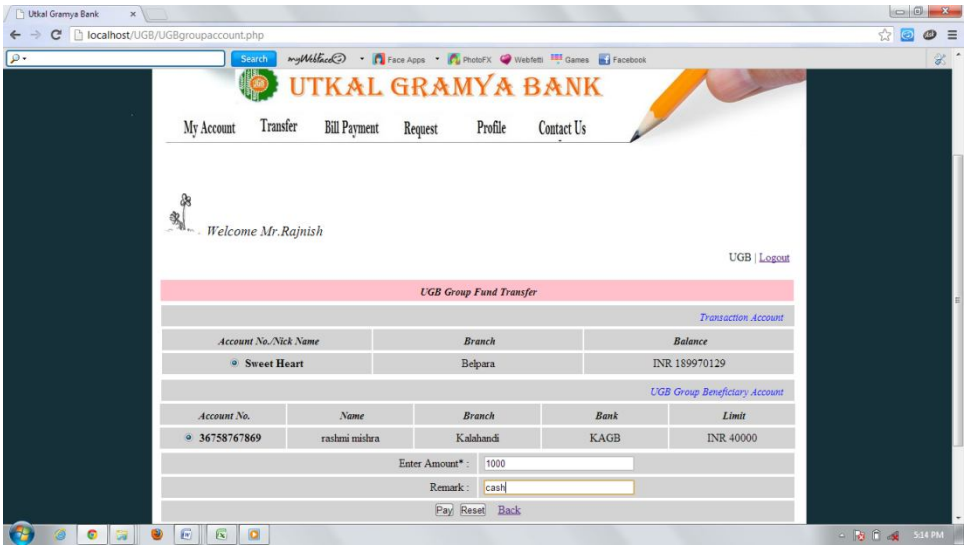
Confirm Inter-Bank Fund Transfer:

High security password entry:

Successful Inter-Bank Fund Transfer:

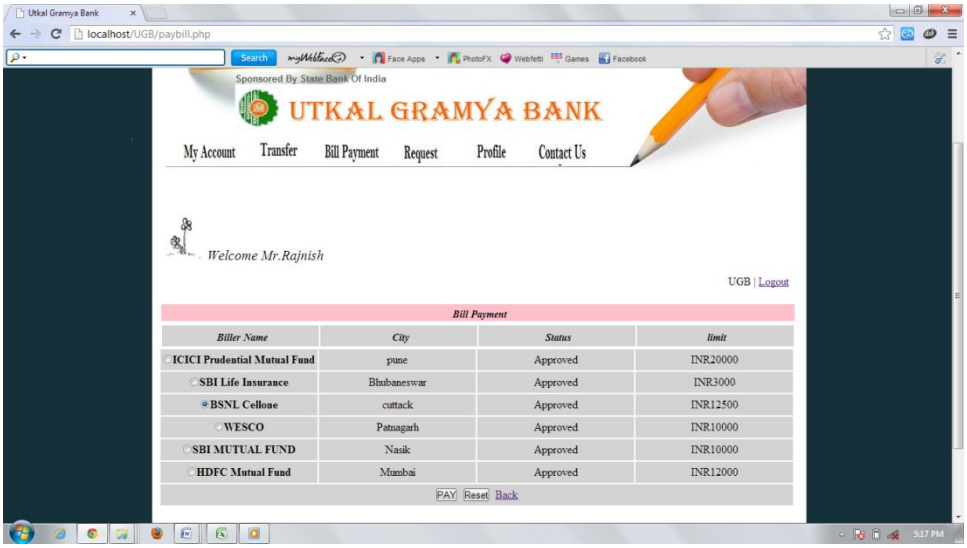


UGB Group Fund Transfer:

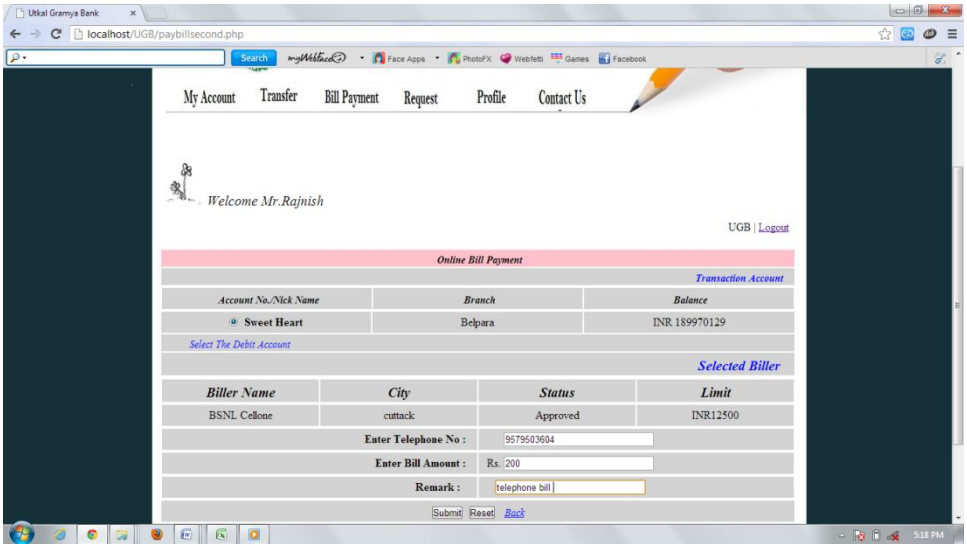


Bill Payment Menu:

Registered Biller list:

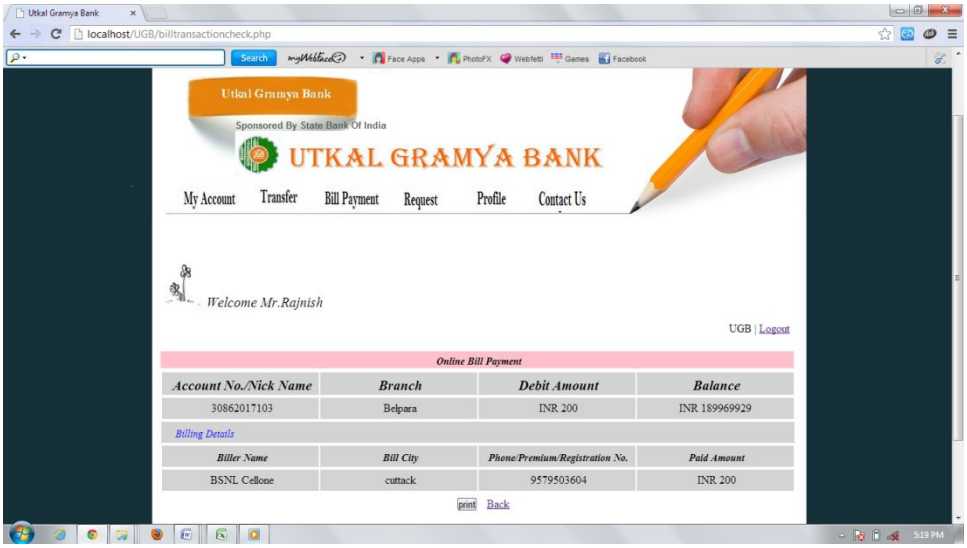


Bill Payment:

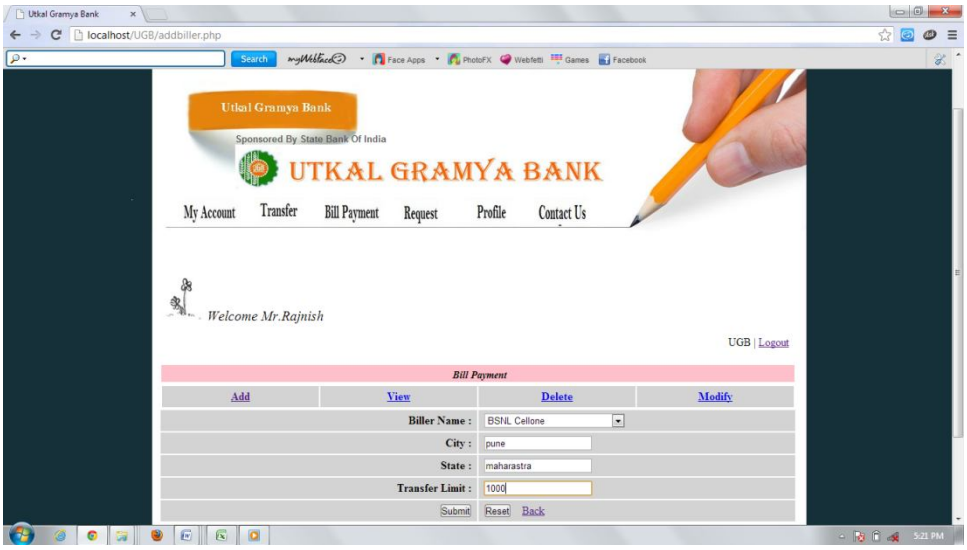


High security password entry:

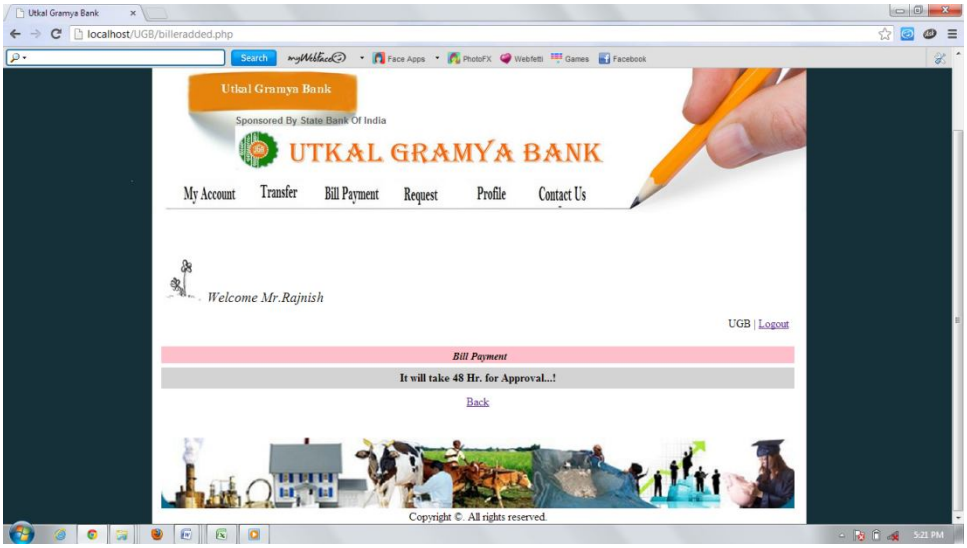
Successful Bill Payment:



Add Biller:



Biller added successfully:



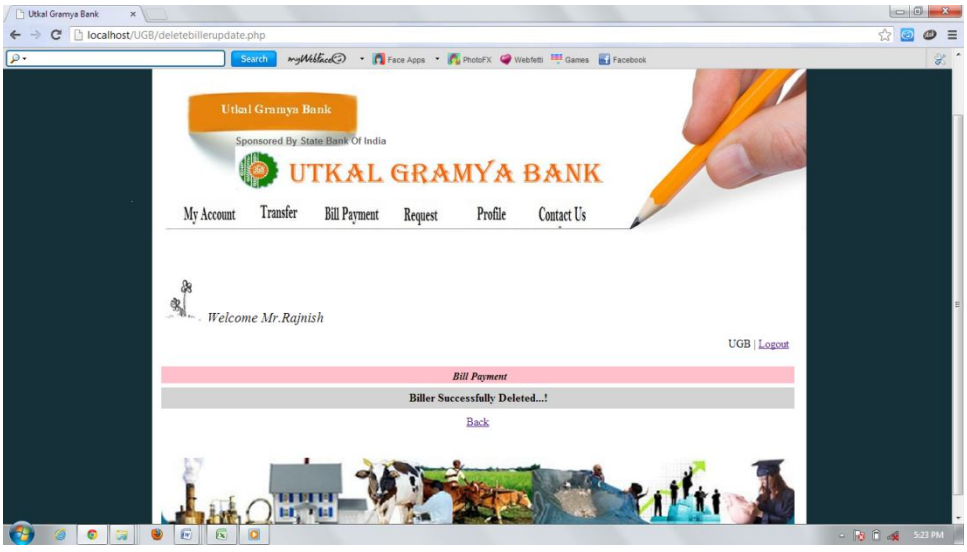
View biller:

Biller Name	City	Status	limit
ICICI Prudential Mutual Fund	pune	Approved	INR 20000
SBI Life Insurance	Bhubaneswar	Approved	INR 3000
ICICI Prudential Life Insurance	sambalpur	Approval Pending	INR 10000
BSNL Cellone	cuttack	Approved	INR 12500
WESCO	Patnagarh	Approved	INR 10000
LIC INDIA	Bargarh	Approval Pending	INR 20000
SBI MUTUAL FUND	Nasik	Approved	INR 10000
Reliance Mutual Fund	Nagpur	Approval Pending	INR 10000
HDFC Mutual Fund	Mumbai	Approved	INR 12000
WESCO	Bolangir	Approval Pending	INR 40000
SBI Life Insurance	blgr	Approval Pending	INR 20000
BSNL Cellone	pune	Approval Pending	INR 1000

Back

Biller list for deletion:

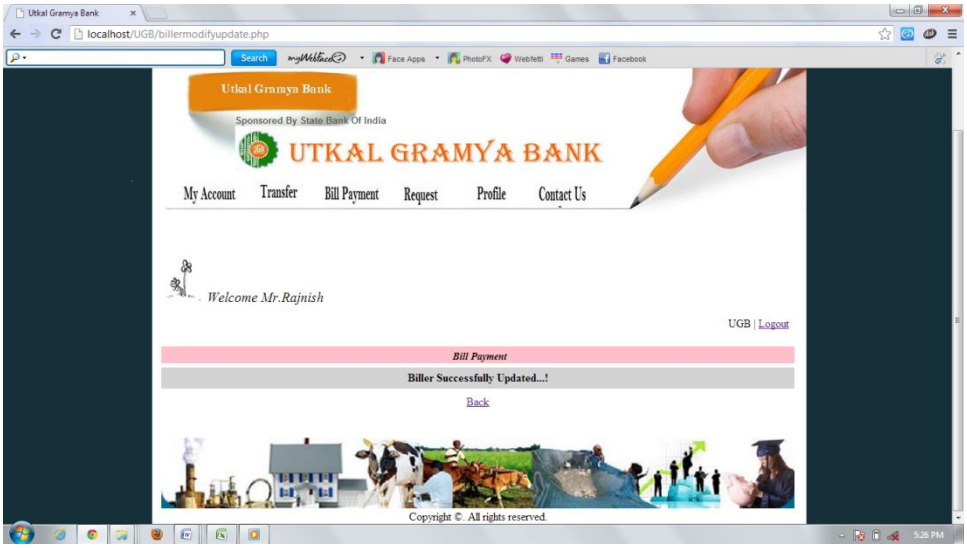
Biller successful deleted:



Biller list for Modification:

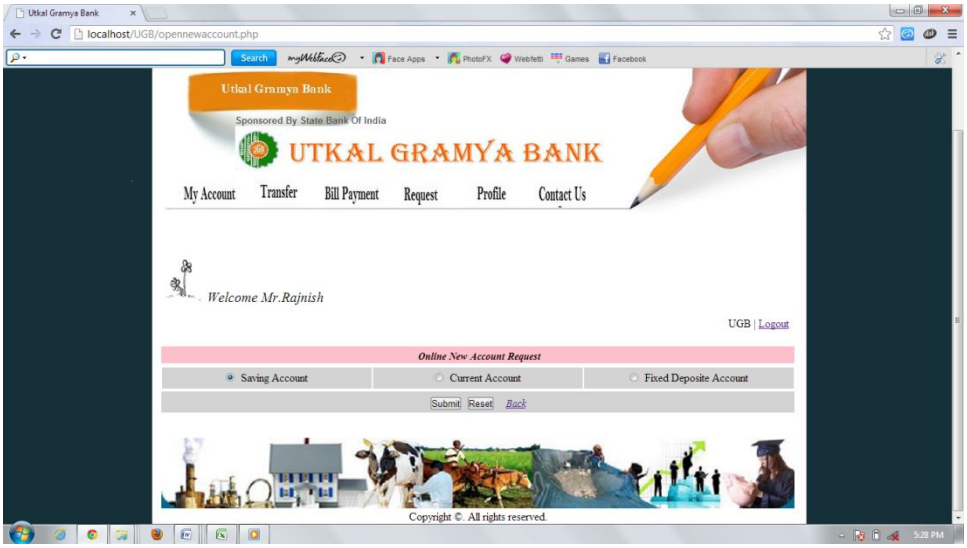
Modify Biller transfer limit:

Biller Successfully Updated:

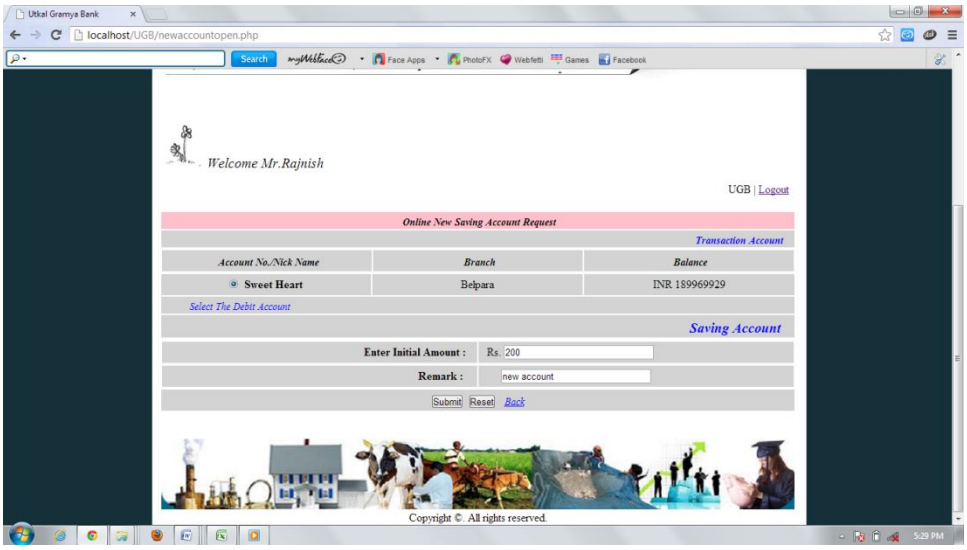


Request Menu:

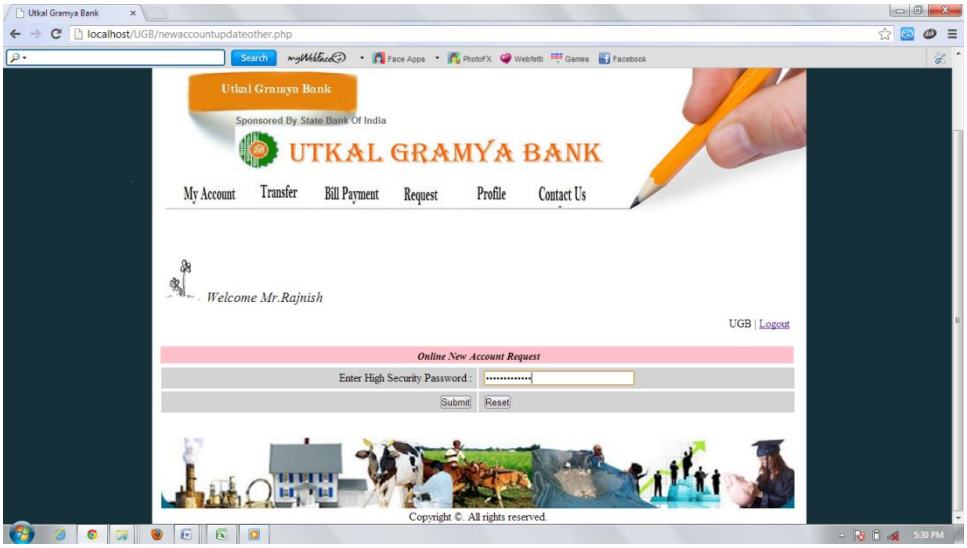
New Account Request Menu:



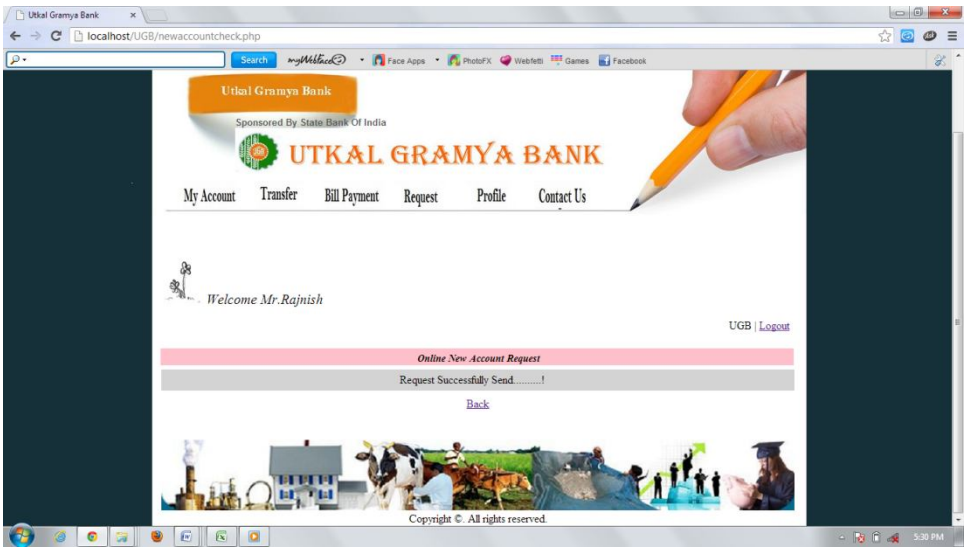
New Saving Account request:



High Security Password Entry:

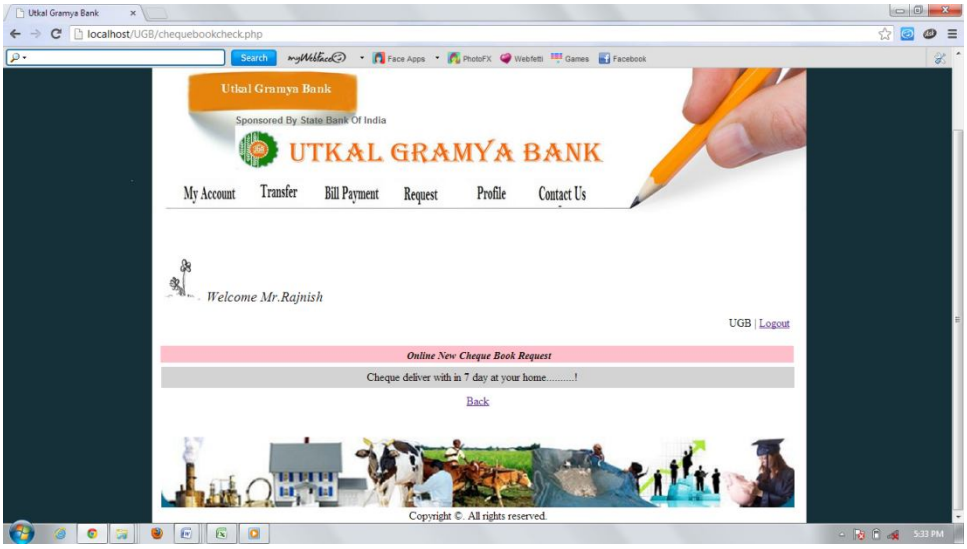


Request successfully send:

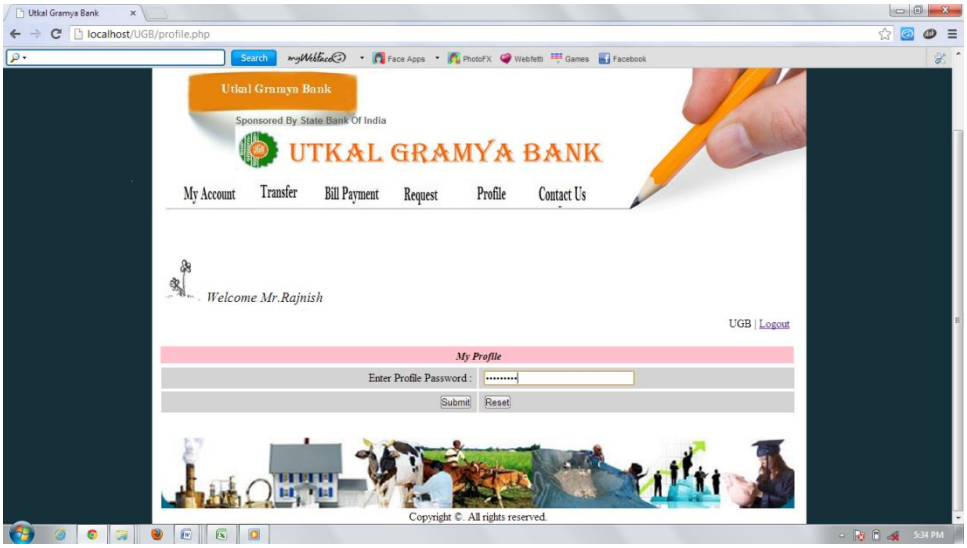


New cheque book request:

Successful cheque book request:

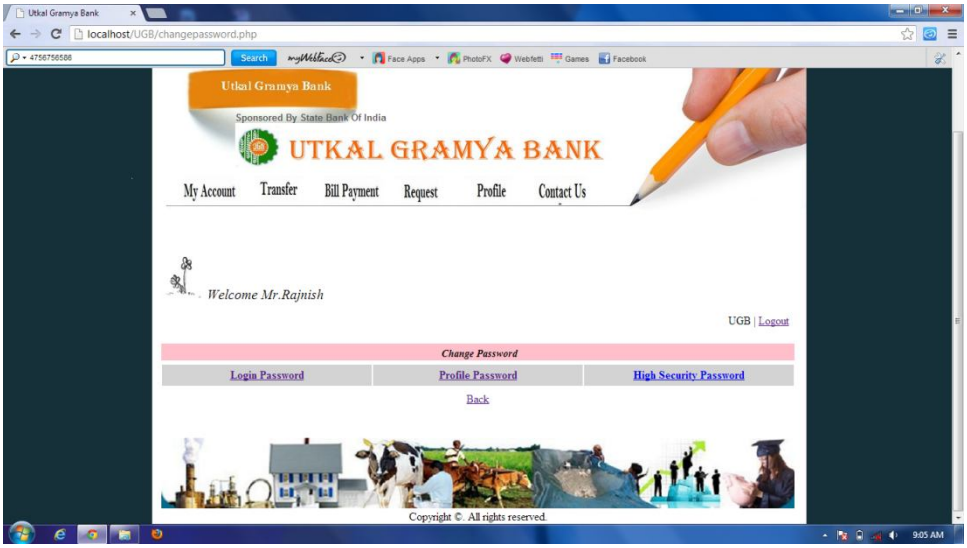


Enter profile Password:



Manage Profile Menu:

Change Password :

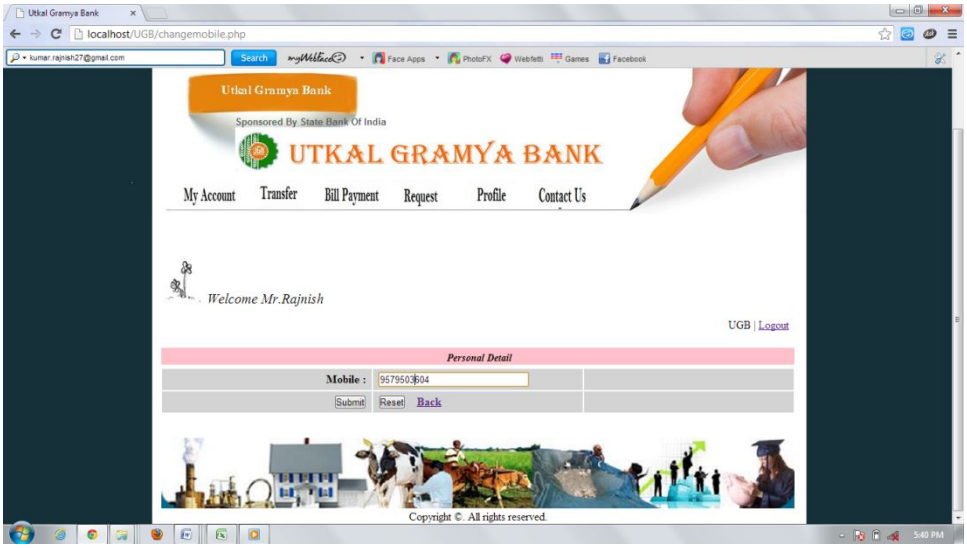


Change Login Password

Password Updated Successfully:

Personal details:

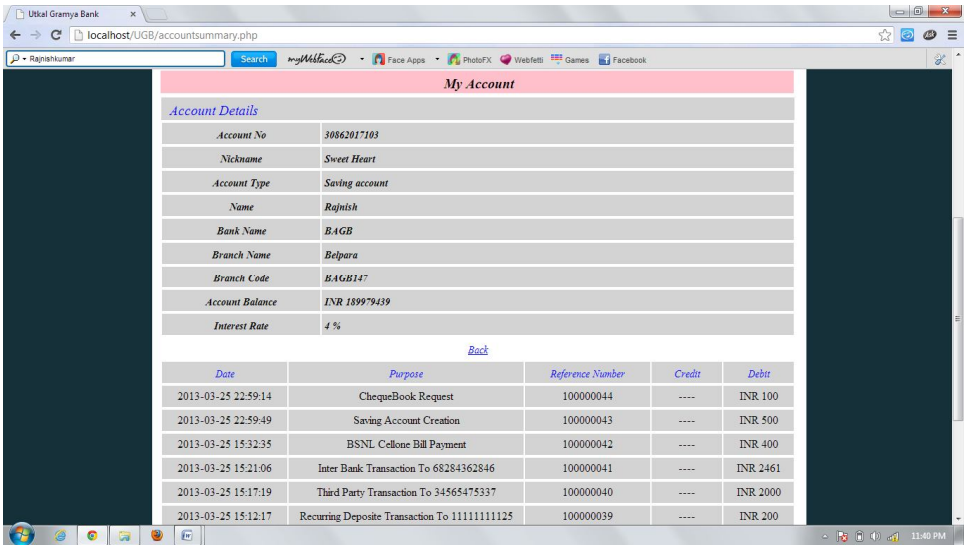
Change Mobile Number:



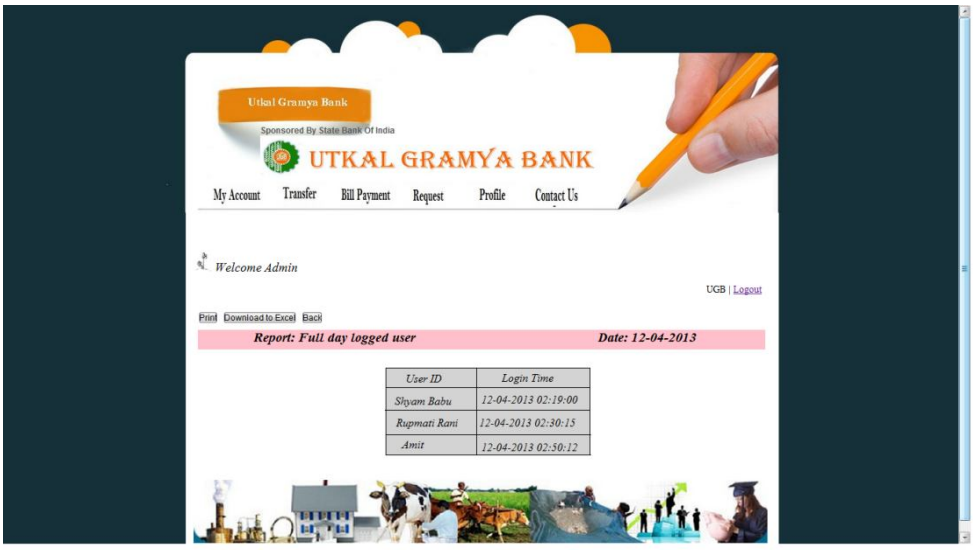
Updated personal details:

Annexure 2:Output Reports With Data

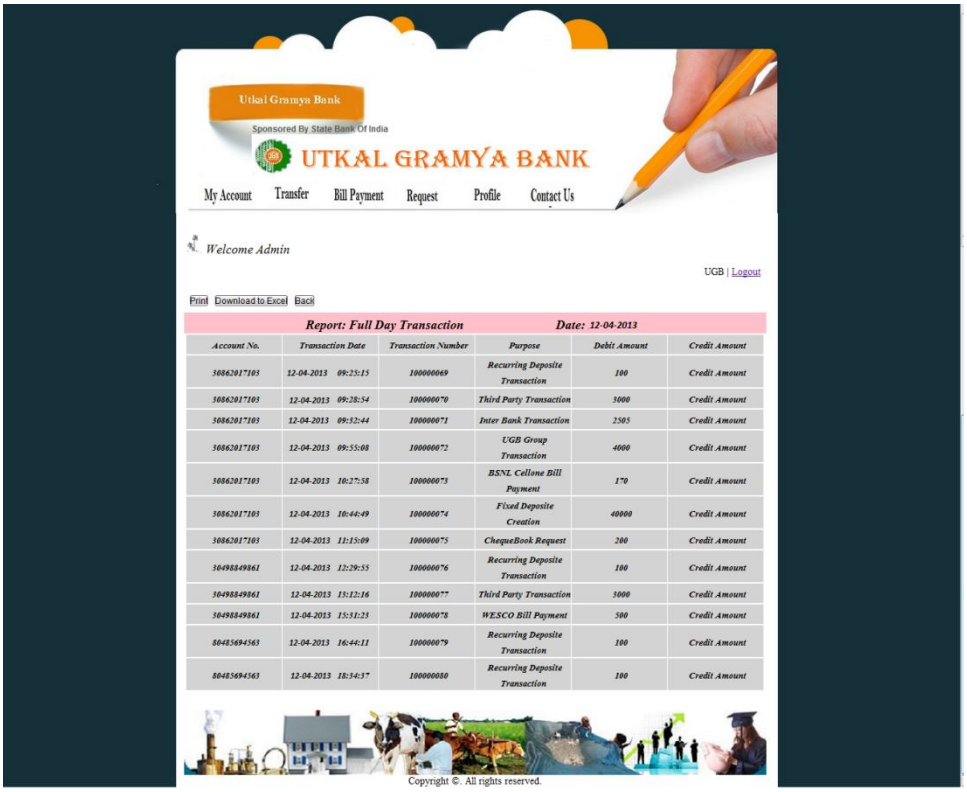
Account Summary Reports:



Full day Logged User Report:



Full day Transaction report:



Utkal Gramya Bank

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UTKAL GRAMYA BANK

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Welcome Admin

UGB | Logout

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Report: Full Day Transaction **Date: 12-04-2013**

Account No.	Transaction Date	Transaction Number	Purpose	Debit Amount	Credit Amount
50862017103	12-04-2013 09:25:15	100000069	Recurring Deposite Transaction	100	Credit Amount
50862017103	12-04-2013 09:28:54	100000070	Third Party Transaction	3000	Credit Amount
50862017103	12-04-2013 09:32:44	100000071	Inter Bank Transaction	2505	Credit Amount
50862017103	12-04-2013 09:55:08	100000072	UGB Group Transaction	4000	Credit Amount
50862017103	12-04-2013 10:27:58	100000073	BSNL Cellone Bill Payment	170	Credit Amount
50862017103	12-04-2013 10:44:49	100000074	Fixed Deposite Creation	40000	Credit Amount
50862017103	12-04-2013 11:15:09	100000075	ChequeBook Request	200	Credit Amount
50498849861	12-04-2013 12:29:55	100000076	Recurring Deposite Transaction	100	Credit Amount
50498849861	12-04-2013 13:12:16	100000077	Third Party Transaction	3000	Credit Amount
50498849861	12-04-2013 15:51:23	100000078	WESCO Bill Payment	500	Credit Amount
80485694563	12-04-2013 16:44:11	100000079	Recurring Deposite Transaction	100	Credit Amount
80485694563	12-04-2013 18:34:37	100000080	Recurring Deposite Transaction	100	Credit Amount

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Annexure 3:Sample Program Code

```
<?php
        session_start();
        $con=mysql_connect("localhost","root","")or
die(mysql_error());
        mysql_select_db("utkalbank");
        $ip=$_SERVER['REMOTE_ADDR'];
        $time_now=mktime(date('H')+5,date('i')+30,date('s'));
        $today=date("Y-m-d H:i:s",$time_now);
        $curdate=date('Y-m-d');
        $login = $_POST['txtUserName'];
        $password = $_POST['txtPassword'];
        $checkip=mysql_query("SELECT * FROM login_attempts
WHERE IpAddress='".$ip."' and UserID='".$login."'");
        $row=mysql_fetch_array($checkip);
        $ipaddress=$row['IpAddress'];
        $previousattempts=$row['attempts'];
        $currentattempt = $previousattempts + 1;
        $successfullogin = 0;
        $firstattempt = 1;
        $result=mysql_query("select * from login_details where
UserID='".$login."'");
        if(!$result)
```

```
{
header("Location:http://localhost/UGB/loginerror.php");
}else  {
        $row1=mysql_fetch_array($result);
        if($ipaddress !=$ip)
        {
                mysql_query("INSERT INTO login_attempts
(IpAddress, attempts, date_last_use, UserID)
VALUES('".$ip."',".$firstattempt.", '".$today."', '".$login."')");
        if($row1['loginpassword']==$_POST['txtPassword'])
                        {
$_SESSION['name']=$_POST['txtUserName'];
                                $_SESSION['start'] = time();
                                $report=mysql_query("select *
from login_report where UserID='".$login."'and
DATE_FORMAT(logintime,'%Y-%m-%d')='".$curdate."'");
                                if(mysql_num_rows($report)==0)
                                {
        mysql_query("insert into login_report (UserID) values
('".$login."')");                              }else  {
                mysql_query("update login_report set
logintime='".$today."' where UserID='".$login."'and
DATE_FORMAT(logintime,'%Y-%m-%d')='".$curdate."'"); }
```

```
                                    mysql_query("UPDATE
login_attempts SET attempts = ".$successfullogin.", date_last_use =
'".$today."' WHERE IpAddress = '".$ip."' and UserID='".$login."'");

        header("Location:http://localhost/UGB/home.php");
                                }else{
        header("Location:http://localhost/UGB/loginerror.php");
        }
                        }else   {
                                if(date(('Y-m-
d'),strtotime($row['account_block_time']))==date(('Y-m-
d'),strtotime($today)))
                                {
                                        if ($row['attempts'] < 2)
                                        {
        if($row1['loginpassword']==$_POST['txtPassword'])
                                                {
                $_SESSION['name']=$_POST['txtUserName'];
                                                        $_SESSION['start']
= time();
                $report=mysql_query("select * from login_report
where UserID='".$login."'and DATE_FORMAT(logintime,'%Y-
%m-%d')='".$curdate."'");
        if(mysql_num_rows($report)==0)
```

```
        {
        mysql_query("insert into login_report (UserID) values
('".$login."')");
                }else   {
        mysql_query("update login_report set logintime='".$today."'
where UserID='".$login."'and DATE_FORMAT(logintime,'%Y-
%m-%d')='".$curdate."'");   }
        mysql_query("UPDATE login_attempts SET
attempts=".$successfullogin.",date_last_use = '".$today."' WHERE
IpAddress = '".$ip."' and UserID='".$login."'");

        header("Location:http://localhost/UGB/home.php");
        }else {
        mysql_query("UPDATE login_attempts SET
attempts=".$currentattempt.",date_last_use ='".$today."' WHERE
IpAddress = '".$ip."' and UserID='".$login."'");

        header("Location:http://localhost/UGB/loginerror.php");
                        }}else if($row['attempts']==2) {
            if($row1['loginpassword']==$_POST['txtPassword'])
            {
        $_SESSION['name']=$_POST['txtUserName'];
            $_SESSION['start'] = time();
            $report=mysql_query("select * from login_report
```

```
where UserID='".$login."'and DATE_FORMAT(logintime,'%Y-
%m-%d')='".$curdate."'");
        if(mysql_num_rows($report)==0)
        {
        mysql_query("insert into login_report (UserID) values
('".$login."')");                    }else   {
                    mysql_query("update login_report set
logintime='".$today."' where UserID='".$login."'and
DATE_FORMAT(logintime,'%Y-%m-%d')='".$curdate."');   }
                                        mysql_query("UPDATE
login_attempts SET attempts=".$successfullogin.",date_last_use =
'".$today."' WHERE IpAddress = '".$ip."' and UserID='".$login."');

        header("Location:http://localhost/UGB/home.php");
        }else   {
        mysql_query("UPDATE login_attempts SET
attempts=".$currentattempt.",date_last_use
='".$today."',account_block_time='".$today."' WHERE IpAddress =
'".$ip."' and UserID='".$login."');
        header("Location:http://localhost/UGB/loginattempterror.php
");
        }}else {
        $v=$row['account_block_time'];
        if(date('H:i:s',strtotime($today)-strtotime($v))>"00:02:00")
```

```
{
if($row1['loginpassword']==$_POST['txtPassword'])
{
$_SESSION['name']=$_POST['txtUserName'];
$_SESSION['start'] = time();
        $report=mysql_query("select * from login_report
where UserID='".$login."'and DATE_FORMAT(logintime,'%Y-
%m-%d')='".$curdate."'");
if(mysql_num_rows($report)==0)
{
mysql_query("insert into login_report (UserID) values
('".$login."')");        }else   {
        mysql_query("update login_report set
logintime='".$today."' where UserID='".$login."'and
DATE_FORMAT(logintime,'%Y-%m-%d')='".$curdate."');   }
                                    mysql_query("UPDATE
login_attempts SET attempts=".$successfullogin.",date_last_use =
'".$today."' WHERE IpAddress = '".$ip."' and UserID='".$login."');
header("Location:http://localhost/UGB/home.php");
}else {
mysql_query("UPDATE login_attempts SET
attempts=".$firstattempt.",date_last_use ='".$today."' WHERE
IpAddress = '".$ip."' and UserID='".$login."');
```

```
        header("Location:http://localhost/UGB/loginerror.php");
                }}else {
        mysql_query("UPDATE login_attempts SET
attempts=".$currentattempt.",date_last_use ='".$today."' WHERE
IpAddress = '".$ip."' and UserID='".$login."'");
        header("Location:http://localhost/UGB/loginattempterror.php
");
                                        }}}
```