**Experiment No. 01**

**Aim:-** To Prepare Problem Statement for Bank Management System.

**Overview:-**

This system provides the basic services to manage bank accounts at a bank. Bank has many branches, each of which has an address and branch number. A client opens accounts at a branch. Each account is uniquely identified by an account number; it has a balance and a credit or overdraft limit. There are many types of accounts, including: A mortgage account, a chequing account, and a credit card account. It is also possible to have a joint account.

**Problem Statement:-**

Although the basic type of services offered by a bank depends upon the type of bank and the country, services provided usually include: Taking deposits from their customers and issuing current or checking accounts and savings accounts to individuals and business. Extending loans to individuals and business, Cashing cheque. Facilitating money transactions such as wire transfer and cashier’s cheque, Consumer & commercial financial advisory services, financial transaction can be performed through many different channels.

**System Requirement: -**

A software requirements definition is an abstract description of the services which the system should provide and the constraints under which the system must operate. And requirements definition is probably the most important technique in structured analysis.

**Functional Requirement:**

1. Customer: The valid customer on internet banking has a set of requirements he/she does on internet banking. These requirements are offered on next pointes.

2. Login: A customer to be able to use this system, he/she has to enter username and password which he/she has created before and been saved in the database in the Login page. This function might be a customer or an Admin also. The input in this function most be valid username and valid password and the output if the user is valid user then he/she will get into a page which can makes has/her transaction, but if the user made wrong in username or password then he/she will be invalid user and will see a message “Alert Invalid Username and Password” and to login again.

3. View Account: View Account allows to a customer to view today’s up-to the minute balance information on deposit (saving/current), credit card, etc. The customer can also view transaction history with retention period up to a maximum of 90 days. Within this feature, the customer can request for account such as “view online, by e-mail or by post option. But the customer most be logged in the internet banking.

4. Transfer Funds: The customer must be logged into Banking System to be able to make his/her transaction for transfer funds. Transfer Funds allows customer to transfer funds between authorized accounts – own personal accounts. Requested transfer take place immediately or at a selected future date specified by customer. The customer can save up to a maximum of 10 accounts and update or delete the account details. All the outstanding future transfers are recorded in a table. The customer can enquire whether there is any funds transfer pending and. when the customer selects the Transfer funds, the system will display Menu to select Transfer Funds function for transfer funds or Transfer History function for display the transaction he/she done.

5. Pay Bills: The customer most be logged into Banking System. With internet banking, customers can make payments to corporations that include utilities, assessments, Insurance, telecommunications, and other services. The customers can use Online Pay Bill service to pay bills by debiting their account. This payment made to payee corporations that the customer has registered with internet banking by using the Registered Bill. But with new payee corporations that the customer has not registered, this payment can be made immediately or at a later date. The customer needs to key in his/her bill account number each time you make a payment. Also the customer makes payment (up to the outstanding balance) to his/her owns credit card and balance transfer account. And he /she can register the bills. After the registration, uses "Registered Payment" for subsequent payments by Bill registration. He /she doesn’t have to enter his/her bill account number anymore. And remove bills from list of "Registered Payment" by using the Bill Deregistration function. For Pay Bill Any bill can be changed or canceled, so There are Enquiry Future Payment Status, this function lets customer enquires whether if has scheduled any future payments or not. And Cancel Future Payment lets customer cancels his/her scheduled future payments if he/she changes his/her mind.

6. Cheque Services: The customer most be logged into Banking System. The customer may enquiries cheque status, whether it is paid, unpaid, stopped or returned. It also allows customer to stop cheque payment and to request for a cheque book online.

7. Utility: The customer most be logged into Banking System. Utility allows customer to change password and the secure delivery contact information. Within this feature, the customer can also change the online profile personal information that is retained by the internet banking system only. And the customer can cancel the ATM facilities.

8. Logout: The customer most be logged into Banking System. This function is used when a logged in user finishes his/her job and wants to be logged out so that no one can abuse his username. The system will state the user has been logged out successfully.

**Non-Functional Requirement:**

1. Security: Security is the feature of the system which ensures that system must be protected from the unintentional or malignant harm; unauthorized access to the data is not permissible. For the safety purpose the data must be backed up after certain period of time say 24 hours and the backed up data must be stored in a secure location. In online banking system the application must be able to send or receive the information to or from the server and client in an encrypted way. Security must stick to some standard and plans. The security is significant subject of online banking as client is more worried about the security of the account, personal data and transactions. The information kept in the system ought to be precise and complete.

2. Performance: The term performance alludes to the capacity of the system or software to process as many as transactions per second as submitted to it without failure. Despite the fact that the system is functional and reliable if it fails to make efficient use of resources such as CPU cycles, disk space etc its performance is not good that is the performance of the system is not up to the mark. Performance measure how well the system can perform and whether the software will have the capacity to reach its response time targets. Performance additionally measures that how effectively the software will have the capacity to scale with countless activities for every second, moment, or hour. The online banking system is a multi- user system, which implies distinctive clients can access the system simultaneously and the system will work accurately and proficiently. So the client is more worried about the performance of the online banking. The term performance suggests the ability of the system or software to process the same number of transactions every second as submitted to it without failure. Performance is measured in term of how well thesystem makes optimized or maximum use of the resources without failure. It measure how well the system can perform and whether the software will have the ability to achieve its response time targets. Performance moreover measures that how successfully the software will have the ability to scale with numerous activities submitted to it in every second, minute, or hour.

3. Usability: As online banking is carried by various types of clients i.e. whether they have knowledge of computers or not so the application designed for online baking must be easy to use and enable the client to manage their accounts or transactions with simplicity. The application must have graphical user interface and it must have the ability to provide informative error messages. The qualities of the ease of use which can be measured are learning time it points out the time required to learn the application, number of errors while working with the normal speed furthermore the likeness of the client to measure the system i.e. the client fulfillment in utilizing the framework. The interfaces of the system ought to be clear, easy and simple to use and understand. To expand the ease of use, on-line help and customer care executive ought to be incorporated into the system to encourage online banking.

4. Availability: The online banking should be available round the clock. It means for how long the system is available for its users or clients and for how long the system will be operational. As far as the online banking system is concerned availability of the system is of uttermost importance as the business is round the clients and clients should be able to avail the benefits of online baking without any constraints and round the availability makes it happen and thus it is of importance for the bank and the clients as well. The online banking system must have the availability of 99% if not hundred than the availability of the system must be nearly 100%.

5. Confidentiality: Client should be able to access the online banking account after successful authentication. The data entered by the client is not accessible to other clients using online banking. As far as the confidentiality of the is concerned it means to maintain the secrecy as online banking is round the clock to access the account i.e. any where any time so it is important that the software of the online baking must provide the facility to maintain the secrecy of the clients and the clients should have their own passwords and user names and these must be automatically become inaccessible to the person who so ever wants to have the unauthorized access to the account.

6. Reliability: Reliability reflects the capacity of the software to maintain its performance over the time. It implies how well the system performs in peak hours. A robust system is one which has the capacity to handle the bugs without failure i.e. how effortlessly it handles the bugs because of data or handling, surprising conditions while working conditions furthermore the software imperfections, and if the system is robust it is reliable also. The application must self contained, consistent and complete with in itself. The failure rate in the online banking system should be least or negligible as the system is supposed to be reliable. Reliability of the system depends on the failure free transactions and how fast the system is able to recover from the failure.

7. Traceability: Traceability refers to the capability for tracing the status of the transaction and account on account number basis. Traceability is an important aspect in the banking industry, where it makes tracking of transaction possible. It should contribute to the safety of the transaction. Online banking should enable the user to trace the state of his/her transaction at any time.

8. Recoverability: Recoverability implies the ability to restore your software to the point when failure occurred. The ability to recoup quickly from a system failure depends not simply on having backup of the data, also on having a predefined plan for recuperating that information. in case of online banking system it is obliged that the software ought to be tested to check it will have the capacity to recuperate from the failures or not to do so the software is subject to failures via doing deeds which prompts its failures e.g. restarting the machine when the online banking application is running, or it is getting information and so on.

**Features: -**

**1. Dealing in Money**

Bank is a financial institution which deals with other people's money i.e. money given by depositors.

**2. Individual / Firm / Company**

A bank may be a person, firm or a company. A banking company means a company which is in the business of banking.

**3. Acceptance of Deposit**

A bank accepts money from the people in the form of deposits which are usually repayable on demand or after the expiry of a fixed period. It gives safety to the deposits of its customers. It also acts as a custodian of funds of its customers.

**4. Giving Advances**

A bank lends out money in the form of loans to those who require it for different purposes.

**5. Payment and Withdrawal**

A bank provides easy payment and withdrawal facility to its customers in the form of cheques and drafts, It also brings bank money in circulation. This money is in the form of cheques, drafts, etc.

**6. Agency and Utility Services**

A bank provides various banking facilities to its customers. They include general utility services and agency services.

**7. Profit and Service Orientation**

A bank is a profit seeking institution having service-oriented approach.

**8. Ever increasing Functions**

Banking is an evolutionary concept. There is continuous expansion and diversification as regards the functions, services and activities of a bank.

**9. Connecting Link**

A bank acts as a connecting link between borrowers and lenders of money. Banks collect money from those who have surplus money and give the same to those who need money.

**10. Banking Business**

A bank's main activity should be to do business of banking which should not be subsidiary to any other business.

**11. Name Identity**

A bank should always add the word "bank" to its name to enable people to know that it is a bank and that it is dealing in money.

**Conclusion:-**

From all the information we can create a bank management system. The whole process of banking is showed in the code like creating new account, displaying details, deposits, withdraw. Hence, we can conclude that Project is accomplished successfully.