**GROUP 6-ONLINE BANKING APPLICATION**

**Member Details:**

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| --- | --- | --- |
| **Roll No** | **Name** | **Role** |
| CB.EN.U4CSE19311 | Bharath Anuj P | Software developer |
| CB.ENU4CSE19313 | Ch.Divyanth | Business Analyst and Software developer |
| CB.ENU4CSE19340 | Mahanth O | Tester and Report |
| CB.ENU4CSE19353 | Swathi P | Software developer |
| CB.ENU4CSE19359 | Neelesh Gupta V | Project manager |

**About The Project :**

The Online Banking System provides many benefits to bank consumers in terms of easy, fast and secure transactions, either through the Internet, mobile phone or other electronic devices. The system is an online application that can be accessed throughout the organisation and outside as well with proper login provided. Online Banking is all about knowing customer needs and provide them with right services at right time through right channel 24\*7 a week. Online Banking system includes e-payment, e-banking etc.

**ABSTRACT:**

This project is aimed at developing an Online Banking for customers.Online Banking is one of the most important financial activities which will be carried out by any person who holds a bank account. The system is an online application that can be accessed with the proper login details.The main objective of our project is to provide more security while performing online transactions by providing efficient authentication etc. In the existing system, we can perform all the operations using a single user id and password

Once a user logs in he or she can check the bank balance, check bank account transaction history or account summary, add beneficiary accounts, transfer funds to another account, download account summary. The customer using the online banking service would be given a user id along with two other passwords. One called Login Password and the other called transaction password. By using login password, the customer can login to their account and we can perform only some (limited) operations like viewing A/C balance and personal details etc. But to perform a transfer or online transaction, the user needs to provide the transaction password and other secure information in order to complete the transaction successfully.

The project has been planned to have centralised storage of the database. Using the constructs of MySQL and all the user interfaces have been designed using HTML AND CSS. Database connectivity is planned using the “Database” methodology. The standards of security and data protection have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forward by the administrative staff.

The entire project has been developed keeping in view the distributed client server computing technology, in mind. The specification has been normalised up to 3NF to eliminate all the anomalies that may arise due to the database transactions that are executed by the general users and the organisational administration. The user interfaces are browser-specific to give distributed accessibility for the overall system. The internal database has been selected as MySQL.The basic constructs of table spaces, clusters and indexes have been exploited to provide higher consistency and reliability for data storage.MySQL was a choice as it provides the constructs of high-level reliability and security. The total front end was dominated using HTML 5,CSS. There are various activities that can be carried out once you log in to your bank account. Authentication and authorization was cross checked at all the relevant stages.

**Stakeholders:**

* Shareholders
* Board of directors
* Employees
* Customers
* Government

**Modules:**

* View profile
* Account status
* Cheque book request
* View statement
* Loans
* Account summary
* Transfer fund
* Transaction history
* Cards
  + Credit card
  + Debit card
* Admin

**Database Tables:**

|  |  |
| --- | --- |
| Table name | Fields present |
| Customer details | Customer\_id(primary key)  Username(foreign key)  Name  Age  Gender  Address  Contact no  Account\_number(foreign key)  Account type  balance(foreign key) |
| Transaction details | Tran\_id(primary key)  Credit \_account\_no  Debit\_acc\_no(foreign key)  Date  Balance  Amount\_debited  Trans\_method  Trans\_state(failure/success) |
| Feedbacks | Feedback\_no(primary key)  Feedback\_data |
| Accounts | Account\_number(primary key)  Acc\_type  minimum\_balance |
| Loan | Cust\_id(foreign key)  Loan\_type  Loan\_amount  Duration  Status  monthly\_interst |
| Login | User\_Id(primary key)  User\_pwd |
| Admin | Admin\_id(primary key)  Password |
| Insurance | Cust\_id(foreign key)  Insurance type  Insurance amount  Status |

**Reports:**

* User Feedback Report
  + This report contains all the feedback given by our customers, in order to improve the services.
* Requirement’s report:
  + Contains the requirements of stakeholders
* Weekly report:
  + Progress made in a week will be uploaded by our project manager
* Testing report:
  + Keeps track of all modules with errors and modules that work correctly
* Debugging report:
  + Rectified errors are mentioned in report
* Transaction Report:
  + This reports shows the transactions made by all users in a day

**ASSUMPTIONS**

* Net Banking is used to describe banking transactions through the internet by a web application.
* Can download Statements.
* There is a limit for the amount to be transferred in a day.
* Can transfer money within the bank ,and to another bank ,NEFT/RTGS.

**REQUIREMENTS FOR ONLINE BANKING**

**For admin:**

Admin has all authority to handle all the user accounts and transactions in a sequence to avoid unauthorised users across all branches.

1. This system allows the admin to login with username and password

2. This system allows the admin to add/update a Bank branch details

3. This system allows the admin to check credentials of a customer so that they can stop all malpractices.

4.This system allows the admin to download all transactions that happened in a day/week/month

5.This system allows the admin to approve loans requested by customers

**For Customers:**

1. Customers can login using username and password

2. Customers can view and update their personal details

3 This system allows the customer to view his/her account balance

4. Customers can get check books, debit cards, credit cards and other necessities from this website.

5. Customers can transfer money from their account to others by specifying required details

Epics User stories and tasks:

1. Login page:

User stories:

* As a user ,I would like to login using User Id and password.
* As a user ,I would like to have the “forgot user ID” option.
* As a user ,I would like to have the “forgot password” option.
* As a user ,I would like to have a Captcha option.
* As a user ,I would like to have a virtual keyboard.
* As a user ,I would like to have an option lock the login after too many failed attempts

1. Accounts:

User stories:

* As a user I would like to view my accounts(current account , savings account ).
* As a user I would like to view my account balance.
* As a user I would like to view/download my account statement.
* As a user I would like to view/update beneficiaries.
* As a user ,I would like to request a cheque book .
* As a user ,I would like to do a fixed deposit.

1. Transfers:

User stories:

* As a user, I want to transfer money from my bank account to another bank account of the same bank using Within the Bank mode.
* As a user, I want to transfer money from my bank account to another bank account of a different bank using Instant transfer mode(IMPS) .
* As a user, I want to transfer money from my bank account to another bank account using NEFT mode .
* As a user, I want to transfer money from my bank account to another bank account using RTGS mode (2 lacs onwards) .
* As a user, I would like to select a beneficiary to transfer money that was already added .
* As a user, I would like to add the remarks to the transfer that I have done .

1. Cards:

User stories:

* As a user I would like to change the pin for my debit/credit card.
* As a user I would like to block my cards if they were lost
* As a user I would like to view the list of recent transactions of my cards.
* As a user I would like to download the statements of my cards.
* As a user I would like to set the limit to the cards .
* As a user I would like to request a new credit card.
* As a user I would like to request for a renewal of the credit/debit card.

1. Bill payment:

User stories:

* As a user ,I would like to recharge the prepaid mobile
* As a user I would like to pay the bill of my postpaid mobile
* As a user I would like to pay my recurring bills like subscription to Netflix,
* As a user I would like to recharge my DTH
* As a user I would like to pay my electricity, water bills., gas payment
* As a user ,I would like to recharge the Fastag, and pay my Challans.
* As a user ,I would like to pay my loan.
* As a user ,I would like to pay my hospital bills.
* As a user ,I would like to pay tax

1. Loans:

User stories:

* As a user , I would like to have a personal loan .
* As a user , I would like to get an educational loan .
* As a user , I would like to have a loan for a vehicle.
* As a user , I would like to have a house loan
* As a user , I would like to apply for a Gold loan .

1. Insurance:

User stories:

* As a User ,I would like to have life insurance.
* As a User ,I would like to have a family insurance
* As a User ,I would like to have vehicle insurance .
* As a User ,I would like to have a health insurance
* As a User ,I would like to have a property insurance
* As a User , I would like to have retirement insurance.

1. Settings:

User stories:

* As a User ,I would like to view my profile
* As a user , I would like to update my profile
* As a user , I would like to change my Password
* As a user , I would like to update the security questions.
* As a user , I would like to have a log out option .

**Software requirements:**

* + HTML, CSS, JavaScript, PHP, MySQL, Web browser, Visual studio code, Node JS,

**Hardware requirements:**

* Client side:
  + Operating system (windows 7 or above, Mac , Linux)
  + Processor (intel i3 or higher)
  + RAM (2 GB or higher)
  + Internet connection with minimum bandwidth of 1Mbps
* Server/Admin side:
  + Operating system (windows 7 or higher)
  + Processor (intel i5 or higher)
  + Graphics card
  + RAM (4 GB is preferred)
  + ROM (minimum 10 GM is required)
  + Internet connection with minimum bandwidth of 1Gbps

