

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.**



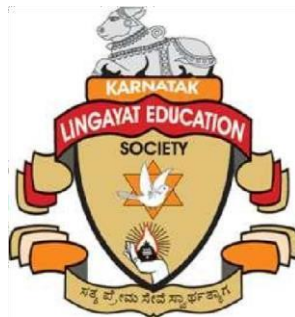
**DBMS Mini Project Report on**

**“ONLINE BANKING MANAGEMENT SYSTEM”**

**Submitted by**

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

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**COLLEGE OF ENGINEERING & TECHNOLOGY,**

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**Academic Year 2022-23**

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**Certificate**

This is to certify that the DBMS Mini Project entitled “**ONLINE BANKING MANAGEMENT SYSTEM**” carried out by **Mr. PRAJWAL RAJEEV HAMPANNAVAR** bearing **USN 2KL20CS055** and **Mr. NANDAN ANAND JAMBLE** bearing **USN 2KL20CS044** have satisfactorily completed the academic requirements for the partial fulfilment of **DBMS Laboratory with Mini Project (18CSL58)** of V Semester Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi for the Academic year 2022-2023.

**Project Coordinator**

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**Internal Examiner**

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Signature:

Date:

Date:

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## **ABSTRACT**

Online Banking Services are accessible to all the customer who have their valid user and id allocated by the bank. The System provides the different facilities like Balance enquiry, Funds transfer to another account in same or different bank, Request for cheque book, change in address, stop payment of cheques, viewing monthly and annual statements. Online Banking System has attracted the attentions of banks, securities, insurance companies in developing nations since the 1990s and the rapid and significant growth in electronic sectors and commerce. The main motive of the online banking system is to provide customer with alternative that is more responsive and less expensive also time saving. Online banking system is the most important financial activity which is now a days mostly carried out by any person who has an account in the bank. Not only unique id and password is allocated with that an new UPI code system is added as a security the bank. If a wrong password is given thrice in the session, that account gets locked and the customer is not able to use their account and an warning is pop up that the account is locked and the same locking system goes with UPI code. Whenever we deal with the Online banking system services the main concern of the customer is always related to the security regarding to the banking transaction and account login activities. The E-Banking services now deals with the single sign-in log on and it is not secured. Authentication is now an proposed system, in this activity of linking an individual process on the basis of username and password and basically the password is consist of characters, numbers, alphanumeric values, special character and etc. To make the password strong so that the attackers should not guess the password easily it might be difficult to remember the password but the strong password are mandatory otherwise the software shows the message as the password is weak and it does not accept that weak password until we create the strong password.

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## CHAPTER 1: INTRODUCTION

### 1.1 BACKGROUND

- Bank's main purpose behind the online banking system is to secure the customers money and to gain their trust. While keeping customers money safe they also charge some amount of rate of interest on the deposited money.
- There the only main difference is mode of transaction i.e online or offline. Now a days almost everyone is known to online banking system which people consider as more convenient for the transactions. We can even check our transaction history through online mode also we can apply for loan too.
- There are many different advantages of internet banking as we can pay the bills, check credit card status, stop payment, we can even transfer money to other bank and same bank. QR code is now a days another feature added to banking system which is also too convenient to use.
- We can also mail and directly contact to the bank customer care services through online banking system. There are different applications through which we can pay the payment but there also we first need to connect our bank accounts details to the app.
- The online banking system gives us different types of securities and also as per new trends they go on updating their security level to a good level and their best. The account number is unique for every account holder.
- Also now a days the fastag services of vehicle is linked to bank account and as similar the RTO challan are also getting debited from bank. There is a unique id and password set for every account holder. The customer care service of online banking is supportive and responsive.

### 1.1.1 IMPORTANCE OF DBMS

#### What is a Database?

A **database** is an organized collection of data, so that it can be easily accessed and managed. Data is raw, unprocessed, unorganized facts that are seemingly random and do not yet carry any significance or meaning. A data can be in variety of forms like text, numbers, media, bytes ,etc. Many activities in our everyday life involve interactions with databases. For example, if we purchase something online or if we make airline reservations or if we do netbanking – we will come across databases.

A database stores and manages a large amount of data on a daily basis. Thus these data need to be stored and retrieved easily. Thus in order to manage such a large amount of data, software is created called as a Database Management System.

#### What is a Database Management System?

A **Database Management System (DBMS)** is software designed to store, retrieve, define, and manage data in a database. It consists of a group of programs which manipulate the database. The DBMS accepts the request for data from an application and instructs the operating system to provide the specific data.

A **relational database management system (RDBMS)** refers to a collection of programs and capabilities that is designed to enable the user to create, update, and administer a relational database, which is characterized by its structuring of data into logically independent tables. In this project we are using a relational database model to store data in the form of tables.

The Database management system plays an important role in processing and controlling information. The importance of database management system is given by

- **Data redundancy and inconsistency :**

Redundancy is the concept of repetition of data i.e. each data may have more than a single copy. The file system cannot control redundancy of data as each user defines and maintains the needed

files for a specific application to run. There may be a possibility that two users are maintaining same files data for different applications. Hence changes made by one user does not reflect in files used by second users, which leads to inconsistency of data. Whereas DBMS controls redundancy by maintaining a single repository of data that is defined once and is accessed by many users. As there is no or less redundancy, data remains consistent.

- **Data sharing:**

File system does not allow sharing of data or sharing is too complex. Whereas in DBMS, data can be shared easily due to centralized system.

- **Data concurrency:**

Concurrent access to data means more than one user is accessing the same data at the same time. Anomalies occur when changes made by one user gets lost because of changes made by other user. File system does not provide any procedure to stop anomalies. Whereas DBMS provides a locking system to stop anomalies to occur.

- **Data searching:**

For every search operation performed on file system, a different application program has to be written. While DBMS provides inbuilt searching operations. User only have to write a small query to retrieve data from database.

- **Data integrity :**

There may be cases when some constraints need to be applied on the data before inserting it in database. The file system does not provide any procedure to check these constraints automatically. Whereas DBMS maintains data integrity by enforcing user defined constraints on data by itself.

To ensure the integrity of a database, each change or transaction must conform to a set of rules known as ACID: Atomicity, Consistency, Isolation and Durability.



- **System crashing:**

In some cases, systems might have crashes due to various reasons. It is a bane in case of file systems because once the system crashes, there will be no recovery of the data that's been lost. A DBMS will have the recovery manager which retrieves the data making it another advantage over file systems.

- **Data security:**

DBMS has specialized features that help provide shielding to its data. Only authorized users are allowed to access the data in DBMS. Also, data can be encrypted by DBMS which makes it secure.

- **Multiple data views :**

Different views of same data can be created to cater the needs of different users.

### 1.1.2 SQL

- **SQL** stands for **Structured Query Language**.
- Structured Query Language is the primary language used to communicate with Relational Databases like MySQL, Oracle, SQL Server, PostGres, etc.
- SQL is used to add, update or delete rows of data, retrieving subsets of data for transaction processing and analytics applications, and to manage all aspects of the database.
- SQL became a standard of the American National Standards Institute (ANSI) in 1986. The standard ANSI SQL is supported by all popular relational database engines, and some of these engines also have extension to ANSI SQL to support functionality which is specific to that engine.
- SQL allows users to understand and analyse the databases, which include the data fields in their tables.
- To control the rows of information stored in tables, SQL uses Queries. A Query is a special code written to retrieve the information from the database or perform any task.

- The crucial importance of SQL is that it provides lots of useful commands to interact with this data. When utilized effectively, these commands are very powerful in helping the clients to manage and modify vast volumes of data effortlessly.
- Some of the best-known and most essential commands are SELECT, DELETE, CREATE DATABASE, INSERT INTO, ALTER DATABASE, CREATE TABLE, and CREATE INDEX. SQL statements are divided into different categories like : Data Definition Language (DDL), Data Manipulation Language (DML), Data Control Language (DCL).

### 1.1.3 IMPORTANCE OF NORMALIZATION

**Normalization** is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies. Normalization rules divide larger tables into smaller tables and links them using relationships. The purpose of Normalization in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically.

Normalization is important because of the following reasons:

- Resolving the database anomalies :  
The forms of Normalization i.e. 1NF, 2NF, 3NF, BCF, 4NF and 5NF remove all the Insert, Update and Delete anomalies.
- Insertion Anomaly: occurs when you try to insert data in a record that does not exist.
- Deletion Anomaly: when a data is to be deleted and due to the poor design of database, other records also delete.
- Eliminate Redundancy of Data: Storing same data item multiple times is known as Data Redundancy. A normalized table does not have the issue of redundancy of data.
- Data Dependency: The data gets stored in the correct table and ensures normalization.
- Isolation of Data: A good designed database states that the changes in one table or field do not affect other. This is achieved through Normalization.
- Data Consistency: While updating if a record is left, it can lead to inconsistent data, Normalization resolves it and ensures Data Consistency.

### 1.1.4 STORED PROCEDURES

A SQL **Stored Procedure** (SP) is a collection SQL statements and SQL command logic, which is compiled and stored on the database. Stored procedures in SQL allow us to create SQL queries to be stored and executed on the server. Stored procedures can also be cached and reused. The main purpose of stored procedures is to hide direct SQL queries from the code and improve performance of database operations such as select, update, and delete data.

The stored procedure is created with the CREATE OR REPLACE PROCEDURE statement.

The syntax is given by:

```
CREATE or REPLACE PROCEDURE name (parameters) IS variables;
BEGIN
```

```
//statements;
```

```
END;
```

The most important part is parameters. Parameters are used to pass values to the Procedure.

There are 3 different types of parameters, they are as follows:

1. **IN:**

This is the Default Parameter for the procedure. It always receives the values from calling program.

2. **OUT:**

This parameter always sends the values to the calling program.

3. **IN OUT:**

This parameter performs both the operations. It receives value from as well as sends the values to the calling program.

The stored procedure is executed by:

```
EXECUTE [Procedure Name];
```

The benefits of using stored procedures:

- **It can be easily modified:** We can easily modify the code inside the stored procedure without the need to restart or deploying the application.
- **Reduced network traffic:** It reduces network traffic.

- **Security:** Stored procedures reduce the threat by eliminating direct access to the tables. we can also encrypt the stored procedures while creating them so that source code inside the stored procedure is not visible.
- **Performance:** The SQL Server stored procedure when executed for the first time creates a plan and stores it in the buffer pool so that the plan can be reused when it executes next time.

### 1.1.5 TRIGGERS

**Trigger** is a special type of stored procedure that automatically runs when an event occurs in the database server. **Triggers** run when a user tries to modify data through a data manipulation language (DML) event. DML events are INSERT, UPDATE, or DELETE statements on a table or view.

Triggers can be written for the following purposes:

- Generating some derived column values automatically.
- Enforcing referential integrity
- Event logging and storing information on table access
- Auditing
- Synchronous replication of tables
- Imposing security authorizations
  - Preventing invalid transactions

CREATE [OR REPLACE] TRIGGER trigger\_name

{BEFORE | AFTER} triggering\_event (INSERT/UPDATE/DELETE) ON table\_name [FOR EACH ROW]

[WHEN condition]

DECLARE declaration statements BEGIN executable statements

EXCEPTION exception\_handling statements (optional) END;

Where,

- CREATE [OR REPLACE] TRIGGER trigger\_name – Creates or replaces an existing trigger with the *trigger\_name*.

- {BEFORE | AFTER} – This specifies when the trigger will be executed.
- {INSERT | UPDATE | DELETE} – This specifies the DML operation.
- [ON table\_name] – This specifies the name of the table associated with the trigger.
- [REFERENCING OLD AS o NEW AS n] – This allows you to refer new and old values for various DML statements, such as INSERT, UPDATE, and DELETE.
- [FOR EACH ROW] – This specifies a row-level trigger, i.e., the trigger will be executed for each row being affected. Otherwise the trigger will execute just once when the SQL statement is executed, which is called a table level trigger.
- WHEN (condition) – This provides a condition for rows for which the trigger would fire. This clause is valid only for row-level triggers.

## 1.2 MOTIVATION & OBJECTIVE

### MOTIVATION

The pandemic has severely affected the everyday lives of people. Many industries & business organisations are at loss. The production & sales sector has been suffering from great loss. Due to the strict guidelines and social distancing many people are inclined towards online transactions since it is less risky & easy.

Due to this the micro, medium, small scale industries and local shops are facing problems in selling their products. They are facing great loss since the number of customers visiting their shops is decreasing. An online platform will help them to serve their existing customers better and also finding completely new audience, those who may never enter their physical location. It helps shopkeepers to keep digital record of payments and orders placed.

Customers can buy from these local shops and strengthen the local economy. Without stepping out from their homes; customers can strengthen the local economy buying from these shops.

This motivated us to create a website which acts as an opportunity or as a platform for those local shops. This will encourage the local shopkeepers to make their presence online and earn their livelihood.

help the customers to get their desired product in lesser time and also to maintain proper social distancing. The customers don't have to wait in queue to buy the products.

## OBJECTIVES

The main object of this system is to provide a secure system. Our system is password protected and it only allows authorized user to access various functions available in the system.

Our system will help the user to Locate any A/C wanted by the user. It will Reduced manual work as most of the work done by computer. As all the manual work will be done automatically so it will increase work speed and reduce time consumption to complete any bank related work. It will also increase the work efficiency as few employees can handle more customers. This will reduced the manual workload and give information instantly.

The Project Banking system has been made to automate the Banking system. Through this bank management system user can manage all bank account activity like deposit money, withdraw money, transfer money from one account to another account, online payment etc. Using this bank management system user can check his account detail online like balance in account, bank statement etc. The Administrator can check bank account with a login can work out with A/C holders of the bank can withdraw/ deposit cash / cheque /DD to/from their accounts. This system is also help bank user to create New account easily. The project makes a sincere effort to provide all the below-mentioned features to meet the requirements of the bank.

In this project we have automate the bank process like Account Opening, Daily Transactions, Loan Sanctions, Account Maintenance. In this bank management system use can also search record of a particular Account Holder.

### 1.3 PROBLEM STATEMENT

The need of money transaction in daily life is very essential. For any operation to be performed for money crediting or debiting, account holder must go to bank and fill required forms manually. Even to simply open a new account one should go through lot of procedures which are done on manual base which is time consuming and inefficient.

While the consumer or account holder is willing to send or receive money through cheques, transfer approval takes some amount of days which is time consuming. There are chances of cheque bounce.

Each time bank employee has to maintain all entries of particular account holder. Which may result in data missing.

Some of the disadvantages of manual banking system are:

- Lack of security of data.
- More man power.
- Time consuming.
- Consumes large volume of pure work.
- Needs manual calculations.
- No direct role for the higher officials.
- Damage of machines due to lack of attention.
- Maintaining of data of consumers manually

## 1.4 PROBLEM DISCUSSION

Nowadays online transactions have gained more importance since they ensure safety of the user and also save time. From banking transactions to buying products, people are choosing to go online. “**ONLINE BANKING SYSTEM**” is a platform created for users the all requirements .

Some of the benefits of online banking are:

- Banking wherever you need to be. There are many common banking tasks you can do without ever coming into a branch. This freedom is one of the main benefits of online banking. From the comfort of your home, while you are at work, or even from a trusted friend’s house, you can deposit checks, pay bills or transfer money. Log on to Online Banking and with a few clicks you are able to get many of your banking to-do’s crossed off the checklist. Just remember the importance of a secure wi-fi network. .
- Save time. When you are ready to deposit that check, so is our Union Bank® Mobile Banking app. Having 24/7 access to your accounts is another benefit of mobile banking. No need to wait in line, just log on and get it done. On your schedule.
- Easy-to-use. If you have used a website before, you can use online banking. Some features, such as alerts<sup>2</sup>and Bill Pay<sup>3</sup>might require set-up, but once you’ve done the set-up its straightforward from there. Take some time to find out which tabs contain which banking tasks you use most often so the next time you log on, it’s just a click away.
- It’s secure. You can set up facial recognition , with your smart phone (if supported by your device). And your personal information is always secured and protected through our authentication and security processes.



## CHAPTER 2: SOFTWARE REQUIREMENTS & SPECIFICATIONS

### 2.1 FUNCTIONAL REQUIREMENTS

#### □ For Customers

- The web application shall accept customer details for creating an account.
- System should accept the changes made by the user in details.
- Password should be hidden from others while typing it in the field.
- System must show all the information about the user.
- System should provide registered user for online money transaction.
- Users must be allowed for requesting debit card followed by online banking registration.

#### □ For Admin

- System shall accept admin to sign in with login and password.
- System must facilitate the admin in order to view the customer's information.
- System must allow admin to update all the new account requests.
- The admin must be able to view and remove customer's account .

### 2.2 NON- FUNCTIONAL REQUIREMENTS:

- Bank management systems are notorious for being subject to malicious attacks, so security is the major requirement for the system. Unauthorized access to the data is not permissible. The data must be backed up daily and stored in a secured location, at a distance from different facilities of the system. The web application should be available anywhere and anytime.
- The bank management system is a multi-client system that must reach response time targets for each of the clients during simultaneous calls and must be able to run a target number of transactions per second without failure. The system must effectively utilize the hardware and energy resources to minimize operational costs..
- The system must provide different graphical interfaces for customers, tellers, and admins. The interfaces must automatically adjust to devices with different screen sizes.

## 2.3 SOFTWARE REQUIREMENTS

Software requirement involves defining prerequisites that need to be installed on a computer for the application to function optimally.

The software requirements for our project are:

- Operating System : Windows or Linux or MacOS
- Front End Scripting Language: HTML, CSS, JavaScript
- Back End : PHP
- Database Management System : MySQL
- Server Package : XAMPP

## 2.4 HARDWARE REQUIREMENTS

- Hardware requirements for this project are given by :
- Processor : Intel core i5 or above or equivalent
- RAM : 4GB

## 2.5 LANGUAGES USED FOR IMPLEMENTATION

- **HTML**

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser.

It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.

Importance of HTML is given by A widely used language with a lot of resources and a huge community behind. Runs natively in every web browser. Open-source and completely free. Clean and consistent markup.

The official web standards are maintained by the World Wide Web Consortium (W3C). Easily integrable with backend languages such as PHP and Node.js.

- **CSS**

**Cascading Style Sheets (CSS)** is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

- **PHP**

PHP is a general-purpose scripting language especially suited to web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994. The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response. Various web template systems, web content management systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response. Additionally, PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control. Arbitrary PHP code can also be interpreted and executed via command-line interface (CLI). The benefits of using PHP : PHP runs on platforms like Linux, Windows etc.

- Easy function methods and syntax of this language.
- Supports DBMS and other open source databases.
- Supports Oracle, MySQL etc.

- Compatible with the servers like IIS, Apache etc.
- Offers comparable efficiency and usability when used for website development.
- Websites developed with PHP include faster processing features and they function easily which makes the data processing easy.
- It is compatible on all Operating Systems such as UNIX, Windows etc.
- Compatibility to upload into HTML
- Affordable to customize, design, develop and modify PHP based websites.

- **JavaScript**

JavaScript, an object scripting language which is used in web pages along with markup language HTML. JavaScript is very popular and adopted universally by every web browser for its support which allows dynamic content to get execute in a webpage. JavaScript does not incorporate or abide by any HTML tags or rules. It is similar to stand-alone programming language developed by Sun Microsystems. As JavaScript got its success worldwide with its integration into the web browsers, the Microsoft has added the JavaScript technology to its own Browser Internet Explorer. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it for client-side page behaviour, and all major web browser have a dedicated JavaScript engine to execute it.

JavaScript benefits:

- Faster user experiences.
- JavaScript helps in user interface interactivity.
- Good and responsive web design.
- Easy to learn.
- MySQL

MySQL is a relational database management system (RDBMS) developed by Oracle that is based on Structured Query Language (SQL). Though often associated with internet applications or web services, MySQL was designed to be extensively compatible with other technologies and architectures.

The RDBMS runs on all major computing platforms, including Unix-based operating systems, such as the myriad Linux distributions or Mac OS, and Windows. Though MySQL's relational nature and the ensuing rigid storage structures might seem restrictive, the tabular paradigm is perhaps the most intuitive, and ultimately allows for greater usability.

#### Benefits of MySQL:

- Data Protection.
- Scalability on Demand.
- High Efficiency.
- 24/7 Up-Time.
- Outstanding Transactional Support.
- Excellent Workflow control

## CHAPTER 3: SYSTEM DESIGN

### 3.1 ER DIAGRAM:

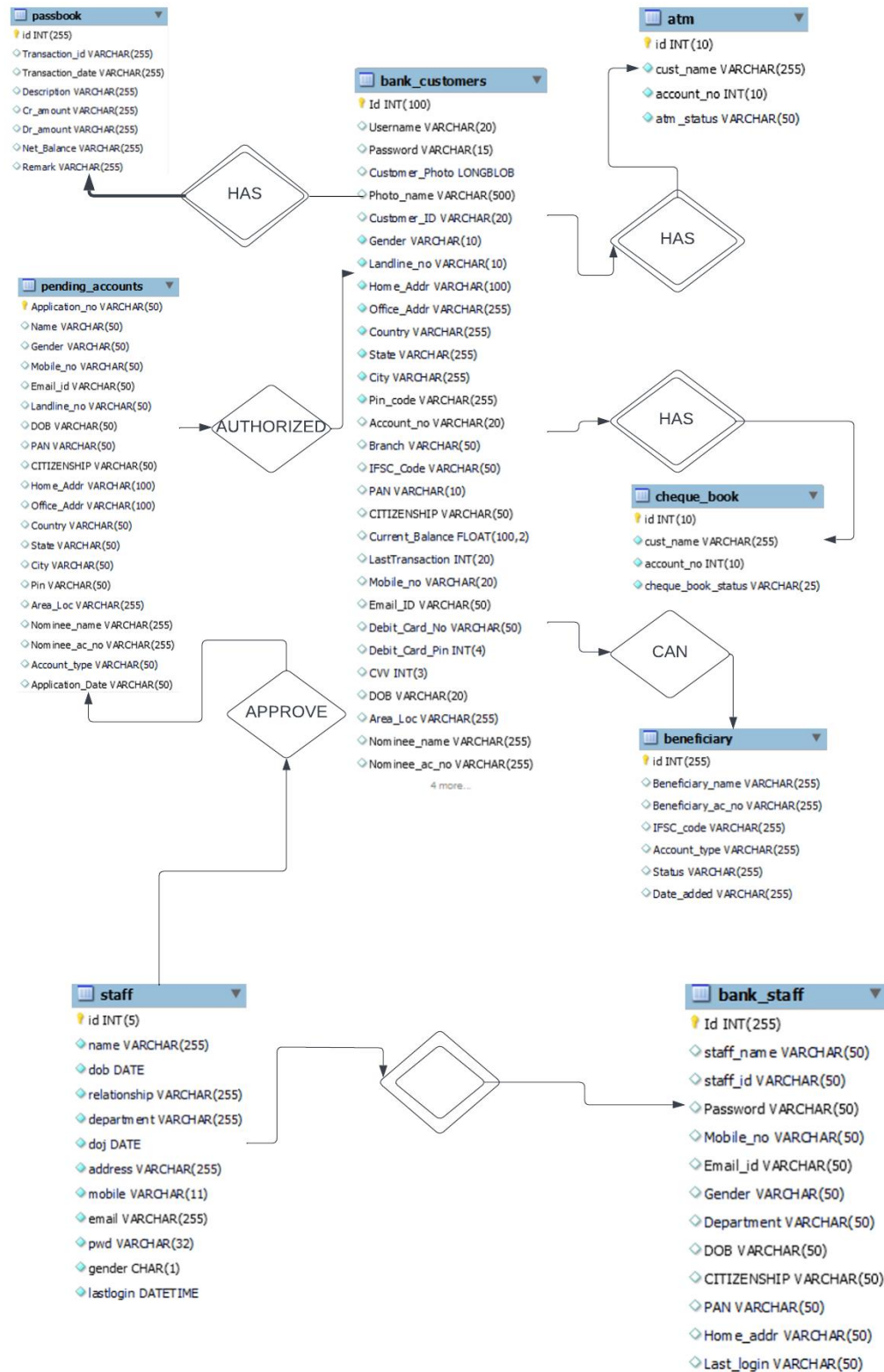
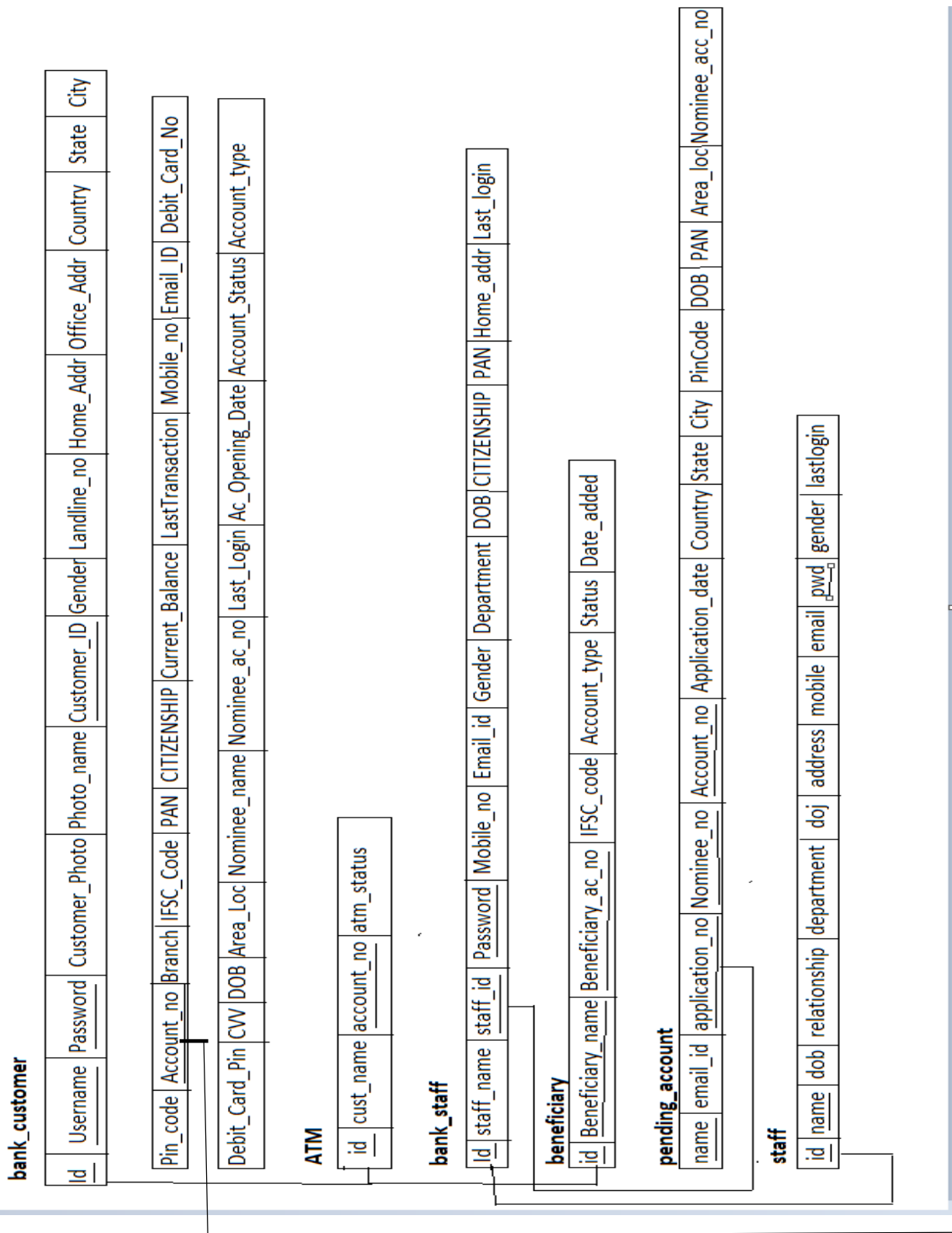
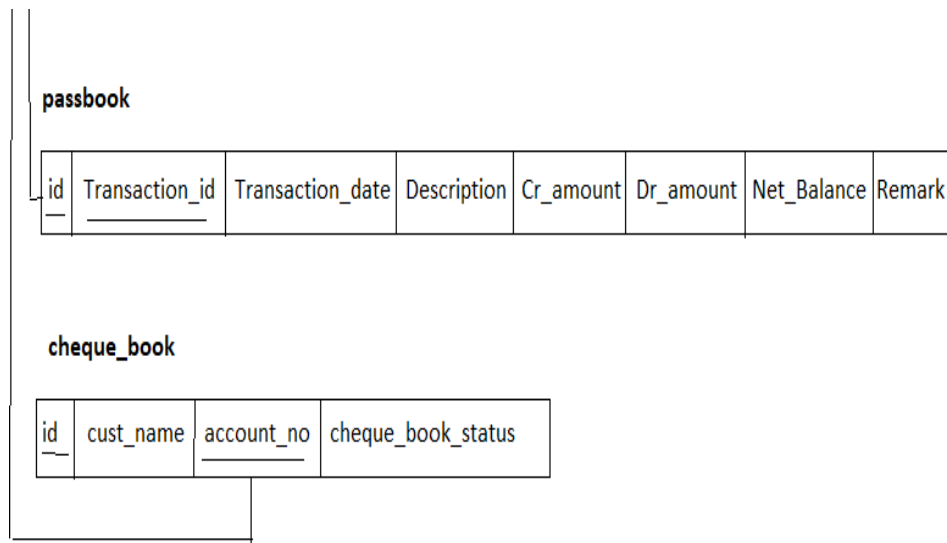


Fig 3.1 ER Diagram

### 3.2 SCHEMA DIAGRAM





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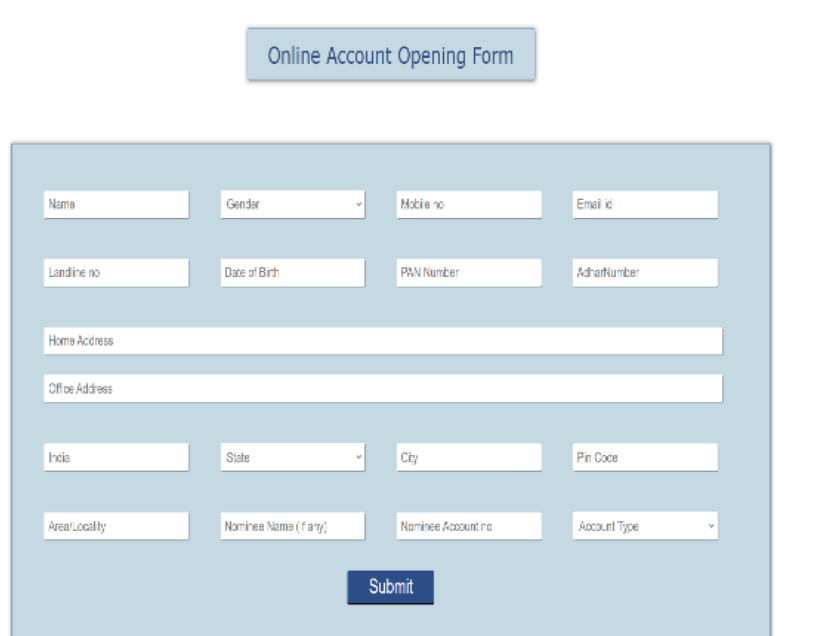
**Fig 3.2 Schema Diagram**



## CHAPTER 4: IMPLEMENTATION AND SCREENSHOTS

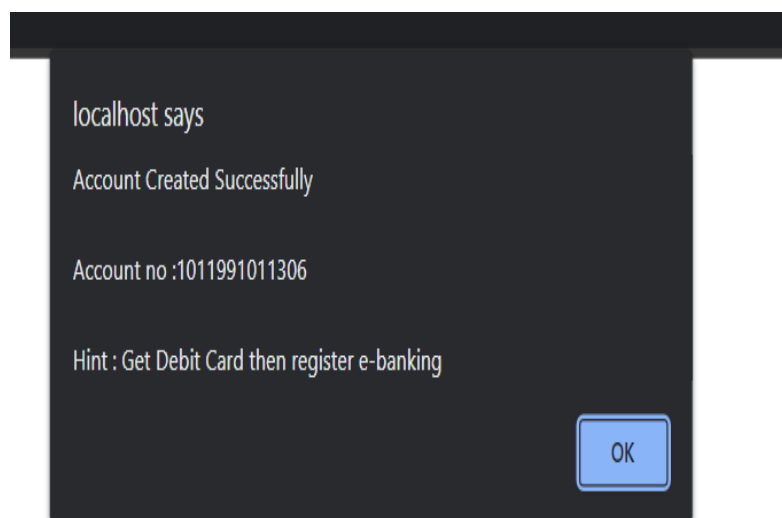
### CUSTOMER REGISTRATION:

This page facilitates the customers to register themselves with their complete details. The information entered by customer is then reviewed by the employee. Nominee is not mandatory in this form.



**Fig4.1 login**

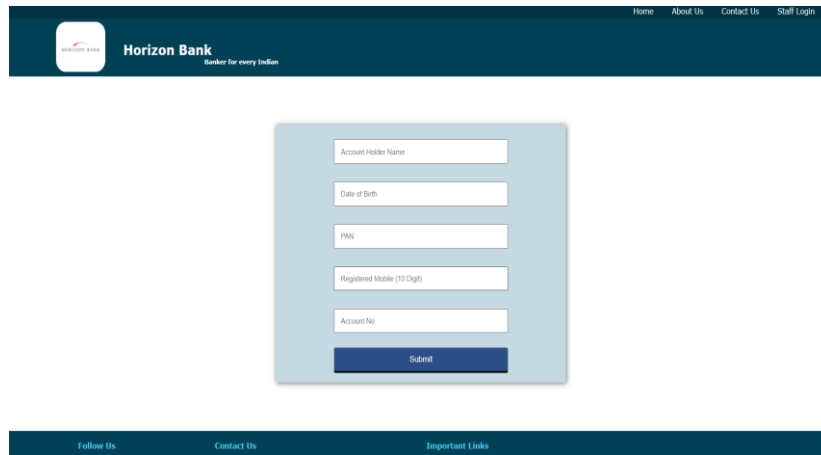
### Bank account number:



Once the employee approves the application of the customer , the customer is provided with the account number.

### Details for debit card:

Once the customer gets account number , he/she is eligible to apply for debit card.

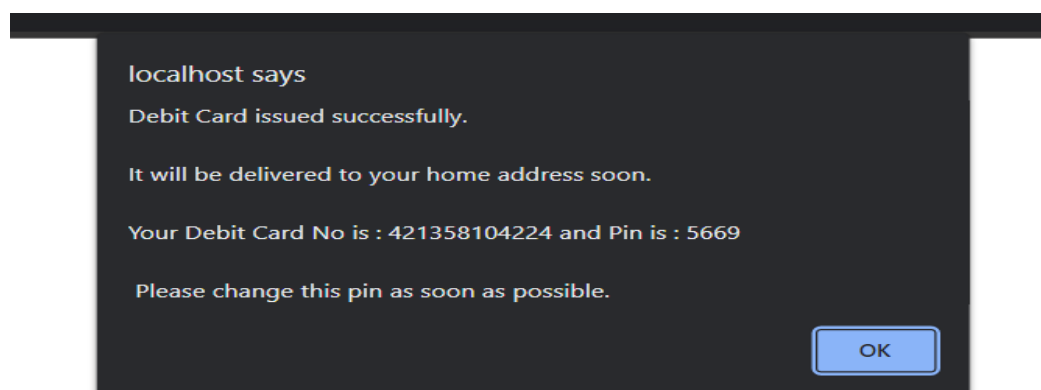


The screenshot shows the Horizon Bank website header with the logo and navigation links (Home, About Us, Contact Us, Staff Login). Below the header is a central form titled 'Details for debit card' with the following fields: Account Holder Name, Date of Birth, PAN, Registered Mobile (10 Digits), and Account No. A 'Submit' button is at the bottom of the form. The footer contains links for 'Follow Us', 'Contact Us', and 'Important Links'.

**Fig 4.3**

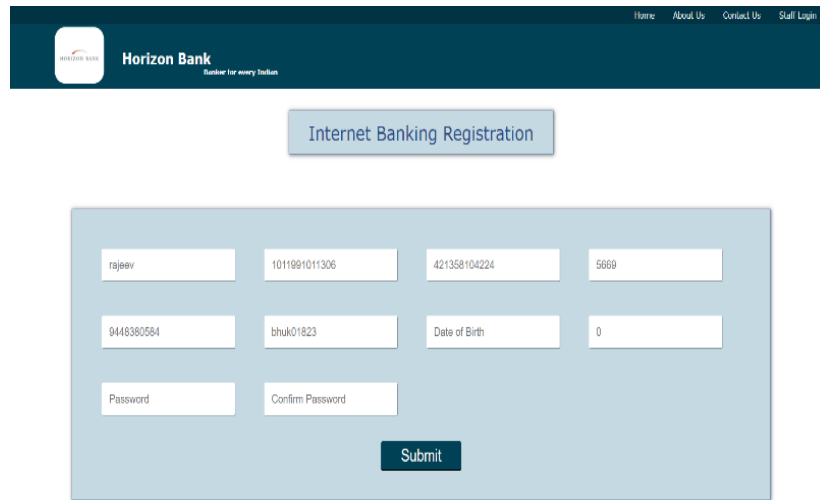
### Debit card number and pin:

Once customer enters all the details for applying debit card , he/she will be given with card number and pin for the debit card.



**Fig 4.4**

## Registering for internet banking:



The screenshot shows the Horizon Bank website header with the logo and navigation links (Home, About Us, Contact Us, Staff Login). Below the header is a button labeled "Internet Banking Registration". The registration form itself is a light blue box containing several input fields: "rajeev" in the first field, "1011991011306" in the second, "421358104224" in the third, "5669" in the fourth, "9448380584" in the fifth, "bhuk01823" in the sixth, "Date of Birth" in the seventh, and "0" in the eighth. There are also "Password" and "Confirm Password" fields, and a "Submit" button at the bottom right.

**Fig 4.5**

Once the customer receives debit card number and pin , using those he/she can register for internet banking. Customer has to set the password which has to be more than 7 characters.

## Online banking login:

It contains logging in of the customer using customer id and the password which is been set by the customer .

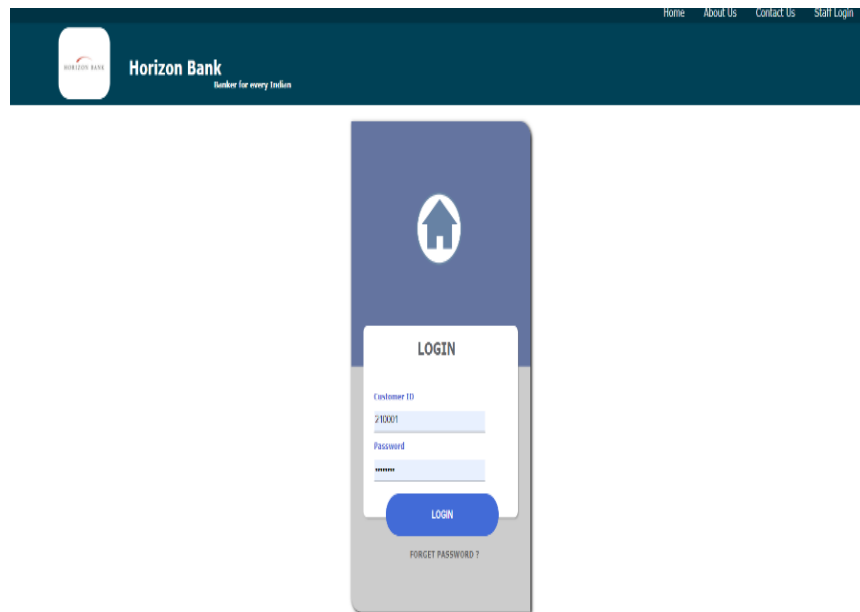


Fig.4.6

### Customer account details:

- This interface helps the customer to know about his transactions, etc.
- The user can change the password
- The user can add the beneficiary to his account.
- The user can check the bank statements.

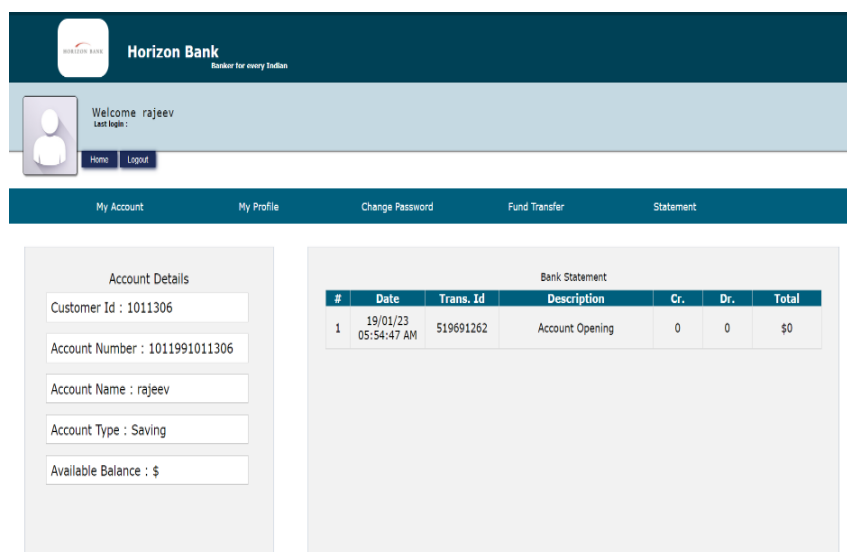
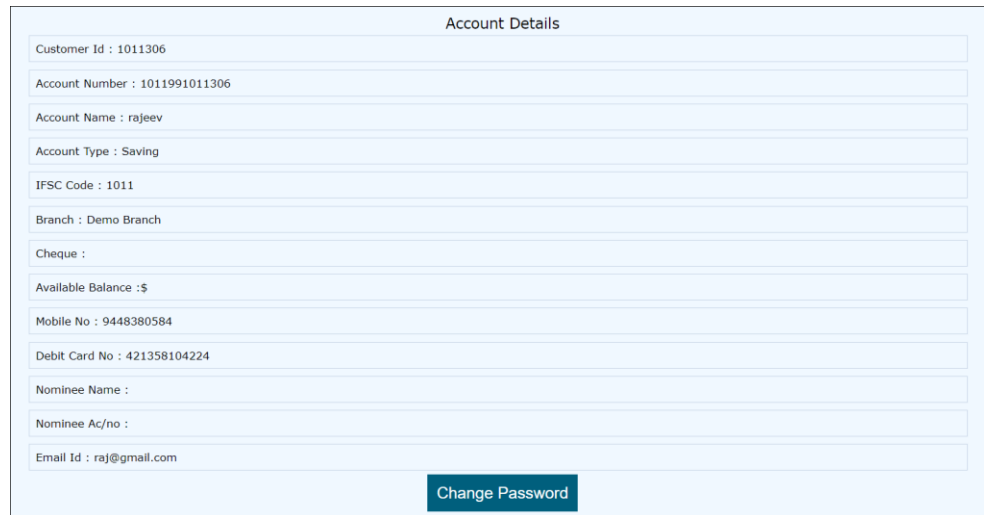


Fig 4.7

### Account details:

The account holder can view his account details here. He can also change the password directly clicking on the button

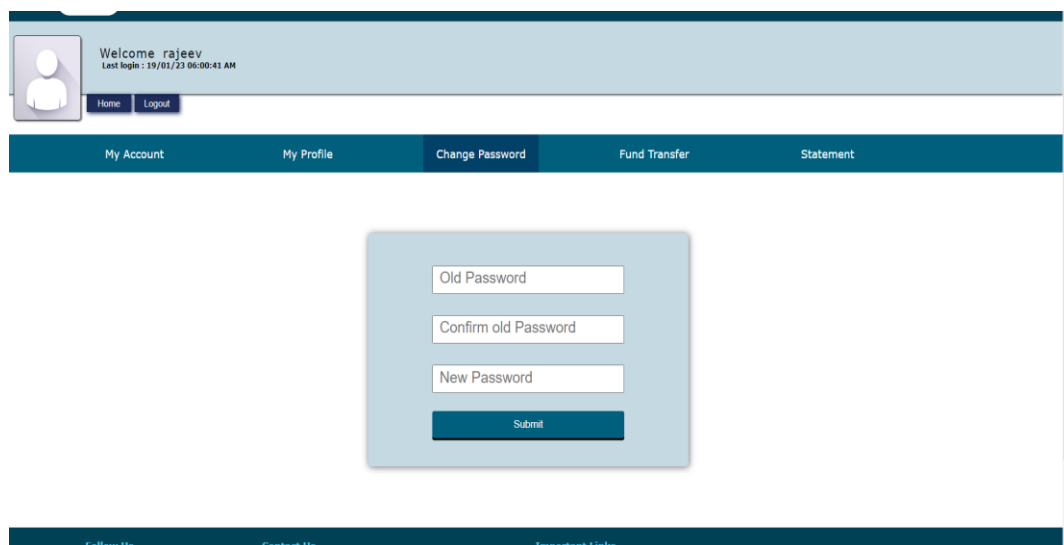



Account Details	
Customer Id :	1011306
Account Number :	1011991011306
Account Name :	rajeev
Account Type :	Saving
IFSC Code :	1011
Branch :	Demo Branch
Cheque :	
Available Balance :\$	
Mobile No :	9448380584
Debit Card No :	421358104224
Nominee Name :	
Nominee Ac/no :	
Email Id :	raj@gmail.com
<a href="#">Change Password</a>	

**Fig 4.8**

### Change of password:

Here the user can change the password by entering his old password.





Welcome rajeev

Last login : 19/01/23 06:00:41 AM

[Home](#)
[Logout](#)

[My Account](#)
[My Profile](#)
[Change Password](#)
[Fund Transfer](#)
[Statement](#)

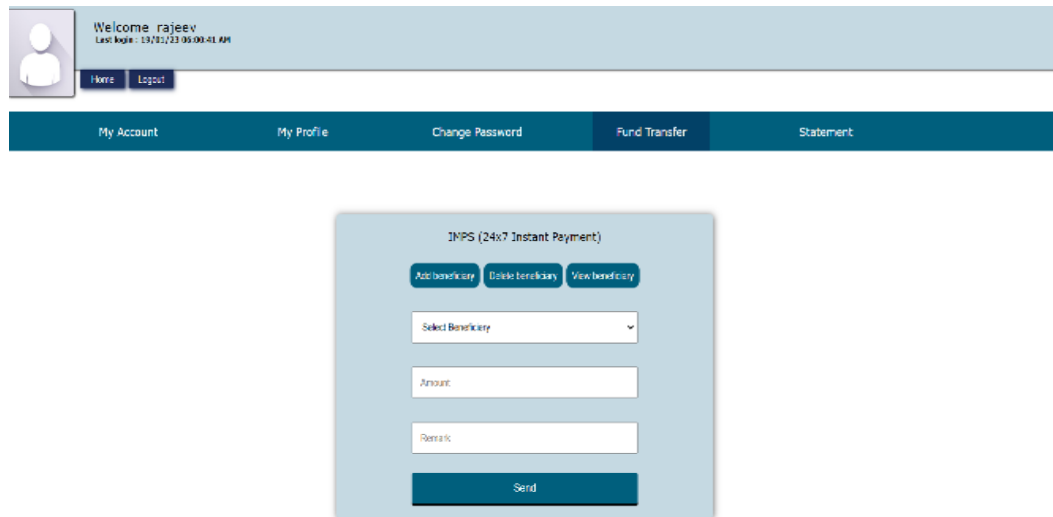
[Submit](#)

[Follow Us](#)
[Contact Us](#)
[Important Links](#)

**Fig 4.9**

## Fund transfer:

Here the customer can send the amount to any one he/she wishes to send by mentioning their account number and the amount to be sent. Customer can also add note for particular transaction.

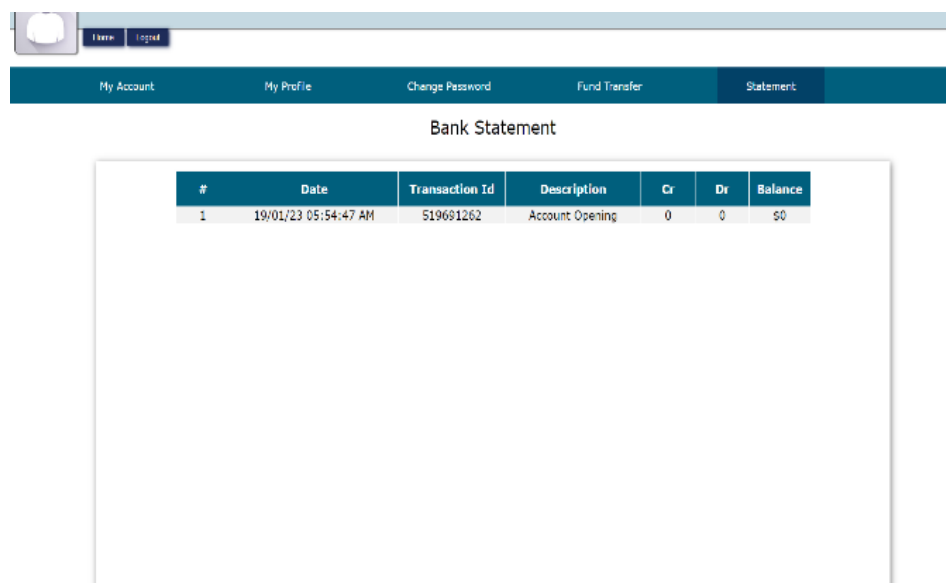


The screenshot shows the 'Fund Transfer' section of a banking portal. At the top, a user is logged in as 'rajeev' with a 'Home' and 'Logout' button. Below this is a navigation bar with links: 'My Account', 'My Profile', 'Change Password', 'Fund Transfer' (highlighted), and 'Statement'. The main content area is titled 'IMPS (24x7 Instant Payment)' and contains three buttons: 'Add beneficiary', 'Delete beneficiary', and 'View beneficiary'. Below these is a 'Select Beneficiary' dropdown menu, followed by input fields for 'Amount' and 'Remark'. A 'Send' button is at the bottom of the form.

Fig 4.10

## Passbook/statement:

Here the customer can see the bank statements consisting of all the transaction made by him.



The screenshot shows the 'Bank Statement' section of a banking portal. At the top, a user is logged in as 'rajeev' with a 'Home' and 'Logout' button. Below this is a navigation bar with links: 'My Account', 'My Profile', 'Change Password', 'Fund Transfer', and 'Statement' (highlighted). The main content area is titled 'Bank Statement' and contains a table with the following data:

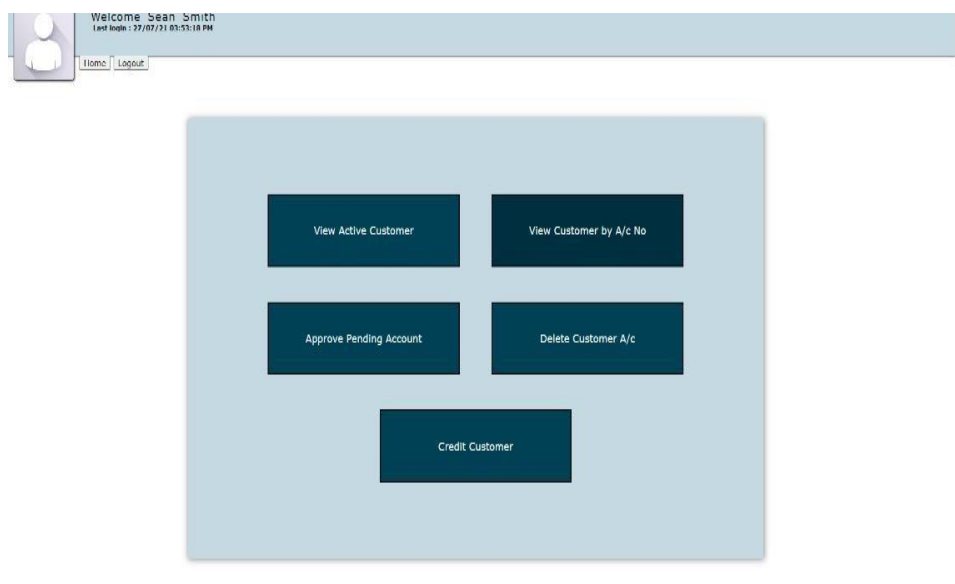
#	Date	Transaction Id	Description	Cr	Dr	Balance
1	19/01/23 05:54:47 AM	S19681262	Account Opening	0	0	\$0

Fig 4.11

### Admin Section:

Once the admin logs in , He is given with five works.

- View active customer: details of all current customers.
- View customer by account number.
- Approve pending account: Admin can approve the applications given by the customer.
- Delete customer account: Admin can delete the user.



**Fig 4.12**

The screenshot shows the Admin Dashboard interface with a table of active customers. The table has 8 columns: #, Username, Customer ID, Account No., Mobile No., Email ID, DOB, and Current Balance. The table contains 8 rows of customer data. Below the table, there is a large orange rectangular area.

#	Username	Customer ID	Account No.	Mobile No.	Email ID	DOB	Current Balance
1	Liam Moore	1010112	1011071010112	7415896650	liammoore@gmail.com	1995-02-15	\$
2	William Richards	1011046	1011801011046	7850001250	william@gmail.com	1990-03-15	\$
3	Christine Moore	1011426	1011411011426	7012500010	christine@gmail.com	1995-09-17	\$
4	Romona Weiss	1011742	1011751011742	7014569690	romonaw@gmail.com	1990-10-10	\$
5	Trevor Russo	1011439	1011951011439	7025690001	trusso@gmail.com	1992-01-01	\$
6	Kathryn White	1011768	1011921011768	7016002001	kathrynww@gmail.com	1996-09-25	\$
7	Premier Internet	1011722	1011591011722	7014780000	printernet@gmail.com	2019-02-20	\$
8	Edward Weese	1011950	1011801011950	7410000010	edward@gmail.com	1992-12-12	\$

**Fig 4.13**

**Horizon Bank**  
Banker for every Indian

Welcome Sean Smith  
Last login : 19/01/23 05:51:01 AM

[Home](#) [Logout](#)

Application number

#	Application No.	Name	Gender	Mobile	Email	Landline	DOB	PAN	City
1	246015272	pf	Male	1111111111	pf@gmail.com	08312485717	2222-11-01	plplplplplplpl	

Fig 4.14

**Horizon Bank**  
Banker for every Indian

Welcome Sean Smith  
Last login : 19/01/23 05:53:01 AM

[Home](#) [Logout](#)

Application number

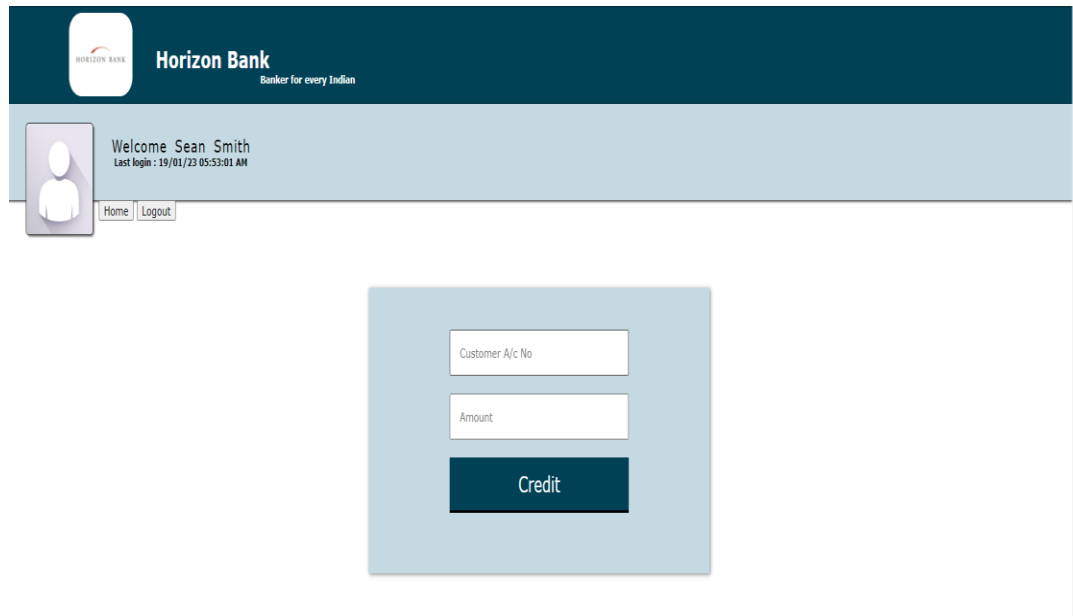
#	Application No.	Name	Gender	Mobile	Email	Landline	DOB	PAN	City
1	246015272	pf	Male	1111111111	pf@gmail.com	08312485717	2222-11-01	plplplplplplpl	

Fig 4.15



## Loan/Credit:

Here admin can have access to give loans to the customers.



The screenshot displays the Horizon Bank online banking interface. At the top, there is a dark blue header with the Horizon Bank logo and the tagline "Banker for every Indian". Below the header, a light blue banner shows a user profile with a placeholder icon, the text "Welcome Sean Smith", and "Last login : 19/01/23 05:53:01 AM". Navigation links for "Home" and "Logout" are present. The main content area features a light blue box containing a form with two input fields: "Customer A/c No" and "Amount", followed by a dark blue "Credit" button.

**Fig 4.16**



## 4.1 MODULES

The system after careful analysis has been identified to be consisting of the following modules and roles. The modules involved are:

- Admin
- Customer

### 4.1.1 Admin:

The administrator is the super user of this application. Only admin have access into this admin page. The administrator has all the information or details about all the users .

- Admin can view and remove customers registered.
- Admin can provide loans/credits.
- Admin reviews the online bank form given by the customer and then approves it.
- Admin has his own login id and password.

### 4.1.2 Users

- Users must login with their password and user ID
- User is allowed to register for debit card.
- Once user receives debit card he/she is allowed to apply for online banking.
- User is provided
- with online money transfer to any one he/she wishes.
- User is allowed borrow loan from the bank.
- Users are allowed to change their passwords as well.

## CHAPTER 5: CONCLUSION

In this report, we discussed how the new payment methods impact on banks in three categories. Here, we summarize them and try to make suggestions to banks for survival. Transactions between the individuals would be made more convenient by the emergence of Mondex-type smart cards. On the other hand, banks will lose fees for person-to person money transfer and fees for ATM transactions. Though adoption rate of the smart cards can not be predicted, banks have to look at other business functions by aggressively join smart cards projects. As the smart cards proliferate, they would make money by issuing the smart cards and transfer money from banking account to the cards. Emerging methods for transactions between consumer and company can be divided into three methods- (1) expansion of credit card method, (2) Digital Check and Internet Banking and (3) Smart Card and Digital Money. The impact to the banks are different in each case. For case (1), opportunities to make loan for consumers will increase due to the increase of credit card use. Banks should leverage the information on customers to gain profit. For case (2), though Digital Check will make business chances for banks by motivating consumers to open account, handling charge from normal type of money transfer will decrease. Internet banking will bring about new opportunities for banks to gain handling charge from customers by expanding customers base and will reduce the operational cost of banks drastically. However, since the entry barrier to Internet banking is low, banks which fails to make strategy about Internet banking will decline. For case (3), banks can enjoy new opportunities to gain handling charge to deal with Digital Money. On the other hand, banks may lose all information, handling charge and credit business by Smart Card and Digital Money. Banks have to promote the favorable methods and join to construct the new rules to profit all the participants when they promote these methods. By netting through EDI, transactions between companies will be compressed and the companies might take over some portion of the settlement function that banks have traditionally conducted. Banks would lose money, and lose control on companies by losing information on the business movements accompanied with the transactions. In order to overcome the threat, banks should expand their business area by acquiring the knowledge of the technology and business related to the EDI and providing total integrated finance systems to companies. We found new payment methods are not only a threat but also a potential benefit to banks, which is somewhat contradictory to what we might have expected. Banks should realize the profit and cost to promote new payment systems and to not deal with new payment methods at all. They also should realize how they can leverage the expertise on settlement and technology in order to survive.

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- <https://phppot.com/php/creating-dynamic-data-graph-using-php-and-chart-js/> for chart
- <https://www.youtube.com/watch?v=5FkptRKXlao&feature=youtu.be> Create Dynamic Morris Barchart in PHP & MySQL
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