SYSTEM REQUIREMENTS

OPERATING SYSTEM: WINDOWS 7 OR ABOVE

PROCESSOR: ANY

RAM: 2 GB OR ABOVE

HARD DISK : ANY

IDE : IDLE PYTHON

MYSQL SERVER: 8.0 OR ABOVE

PYTHON VERSION: 3.6 OR ABOVE

THE EXISTING SYSTEM

CURRENT SYSTEM USES MANUAL WORK BY PEOPLE OR MAY BE DONE IN COMPUTER BUT SYSTEM IS STILL NEED TO IMPROVE AS THERE ARE CERTAINS THINGS THAT CAN BE IMPROVED MAINLY DUE TO FOLLOWING REAONS:

- IMPORTANT FILES CAN EASILY MIX UP WITH OTHER FILES.
- FILES OCCUPY LARGE STORAGE SPACES.
- UNNECESSARY OF DULPICATION OF DATA.
- RETRIEVAL OF DATA IS EXTREMELY DIFFICULT.
- DATA ENTRY PROCEDURES IS PRONE TO ERRORS.
- MODIFICATION IS DIFFICULT.
- FILE SYSTEM IS USED.

THE PROPOSED SYSTEM

Our system provides ease to the bank's customers, we have the provision for adding details and requirements of customers by themselves. Customer can use this system without any restriction .This system have ability to improve just by editing its code. Hence it is highly recommended.

SALIENT FEATURES OF OUR SOFTWARE:

- Ensuring data integrity.
- Establishes an entry point for new users to access the system after successful signup.
- Communicates with users and ***ensures that invalid inputs or exceptions are caught gracefully by offering retries or exits.***
- ***Provides a brief policy overview for users intending to sign up, highlighting essential points to consider.***
- ***Verifies user credentials against the database, granting access upon successful authentication.***
- ***Offers a recovery mechanism for users who may have forgotten their account number.***
- Ensures proper validation of updated data and manages the modification of multiple tables' records.

- Reducing the likelihood of accidental account closures.
- Implements error handling to manage unexpected inputs or potential database errors.
- ***Uses timestamps for transaction history, enabling chronological tracking of account activity.***
- Updates account balance and logs transaction details in separate tables, ensuring data integrity and traceability.
- Maintaining data consistency across table.

HOW TO USE THIS?

Database Setup:

MySQL Database: Ensure you have MySQL installed and running.

Environment Preparation:

Python Installation: Ensure Python is installed on your machine.

Library Installation: Install the mysql-connector-python library using pip install mysql-connector-python.

Database Configuration in Python Code:

Update the database connection details in the Python code:

Modify the host, user, passwd fields in m.connect() to match your MySQL configuration.

- Run the code
- The terminal or command prompt will display options
- Choose between logging in or signing up.
- Follow the prompts displayed in the terminal to interact with the system.
- Use numerical inputs for operations like opening an account, depositing, withdrawing, etc.

Signup Process:

1. Start the Program:

- When you run the Python script, the program prompts you to choose between logging in or signing up.

2. Choosing Signup:

- If you're a new user and want to create an account, select the signup option by entering '2'.

3. Providing Information:

- The system prompts you to enter details:

- Username: Input your desired username.

- Password: Enter a password for your account.

4. Database Entry:

- After entering your details, the system inserts this information into the MySQL database in the `signup` table, associating your chosen username with the provided password.

5. Confirmation and Continuation:

- Once signup is successful, the system confirms the signup and asks if you want to continue using the system. You can choose 'yes' to proceed or 'no' to exit.

6. Login After Signup (Optional):

- If you continue and wish to access your newly created account, you're prompted to log in using your new credentials.

Login Process:

1. Start the Program:

- Choose the login option by entering '1' at the start of the program.

2. Providing Credentials:

- Input your existing username and password when prompted.

3. Verification:

- The system checks whether the provided username and password match the records stored in the MySQL database under the `signup` table.

4. Access Granted: - Upon successful verification, the system confirms the login and grants access to the banking functionalities associated with your account.

5. Proceed with Operations:

- After logging in, the system presents a menu of banking operations (like deposit, withdrawal, checking balance, etc.) that you can perform.

- Error Handling: If the provided username or password doesn't match any records in the database, the system will prompt you with a message indicating the wrong credentials.

Operations and Input Details:

1. Opening an Account:

- Provide personal information:

  - Name: Enter the full name of the account holder.

  - Phone Number: Input a 10-digit phone number.

  - Address: Enter the residential address.

  - Email: Input a valid email address ending with '.com'.- AND Date of Birth: Enter the birthdate in 'YYYY/MM/DD' format.

- Opening Balance: Input the initial amount to deposit.

- City: Enter the city name.

- Pin Code: Input a 6-digit pin code.

- Aadhar Number: Provide the Aadhar number (12 digits).

2. Forgot Account Number:

- Input account details to retrieve the account number:

- Account Holder's Name

- Aadhar number linked to the account.

- Input the unique ID provided during account creation.

3. Deposit and Withdrawal:

- For Deposit:

- Enter the account number

- Input the amount to be deposited.

- For Withdrawal:

- Enter the name associated with the account.

- Account number for the withdrawal.

-Input the amount to withdraw.

4. Transaction Details

- Input the account number to view the most recent transaction details.

5. Check Balance:

- Enter the account number to check the current balance.

6. Display Account Details:

- Enter the account number to view associated details like name, date of birth, email, address, balance, etc.

7. Closing an Account:

- Input the account number to close the account.

8. Update Information:

- Enter the account number.

- To update:

- any name, phone number, address: Input the new details.

- For email: Choose 'Y' to update and input the new email.

10. Exiting the System:

- Input '0' to exit the system.

- Follow the system's prompts and instructions for each operation.

- Ensure accuracy and correctness in the details provided.

- Use valid and appropriate inputs as per the system's requirements.