Authentication failed

Home

Secured pin generation

Authentication successful

Login page



Transaction

OTP



The above architecture diagram depicts the bank system. The following are the functionality of each modules used in the architecture.

**Customer login :** In this module, the user tries to login to his/her account by using their credentials. If the login fails due to any reason like wrong password or username, etc., the authentication gets fail and it will generate an alert to user’s phone and email. Once the authentication is successful, the user will get a security pin generated by system. Once the user entered that successfully, it will lead to their home page of their account. Otherwise it will generate an alert user’s phone and email.

**Transaction :** Once the user gets into their home page, they will be able to do transactions from their account. For every transaction, an OTP will be send to user’s phone. Once the OTP entered correctly, the transaction will be successful. Otherwise an alert will be generated to user’s phone.

**Alerting system :** Whenever an alert is generated, it will be send to user’s registered phone and email.

**Account Managing :** This is the actual application where the actual transaction takes place. The user request is processed and the necessary actions like CRUD operation or any other data processing is done here and the values are affected in the respective DB (Database).

**Entry Point** - It is the module which will be acting as the interface whose implementation is carried out in the account managing.

**Converting To Working Code:**

* **Coding Language** : Java
* **Tools Required**  : STS, visual studio.
* **Framework** :
  + - Spring boot (for developing the API’s)
    - Angular JS, React JS.
    - MySQL querying.

**Justification To Ensure The Above Proposal Is Efficient:**

* I propose this as the cost efficient way to implement the banking system as because it uses most of the open source tools for developing the software.
* Also since it checks for authorization of user. So it is highly secured.
* It also enables user to access through any medium let it be may be a mobile or a personal computer or an ATM machine. Hence it is user friendly in nature.
* It ensures that the user gets the respective response for all type of transaction being carried out. So it is sensitive and reliable.