**System Architecture Design**

**The ATM interface system architecture can be designed as follows:**

***1. Front-end:***

The front-end of the system will be developed using Java Console. The front-end will provide a user interface to access the functionalities of the ATM.

***2. Back-end:***

The back-end of the system will be developed using Java. It will consist of different modules, including User authentication module, Account module, Transaction module, and ATM module.

***3. User Authentication Module:***

This module will authenticate the user with their user id and pin. If the authentication is successful, it will proceed to the next module. Otherwise, it will prompt the user to enter the correct user id and pin.

***4. Account Module:***

This module will fetch and display the account details of the user. It includes the account balance, account number, and other details.

***5. Transaction Module:***

This module will perform all the banking transactions, including deposit, withdraw, transfer, and viewing transaction history. It will interact with the transaction database to record and fetch the transaction history.

***6. ATM Module:***

This module will integrate all the other modules and provide the user interface to access the functionalities of the ATM. It will interact with the account database to fetch the account details and with the transaction database to record and fetch the transaction history.

***7. Database:***

The system will use two databases: account database and transaction database. The account database will store the account details of the users, while the transaction database will store the transaction history of the users.

***8. Security:***

The system will implement security measures, such as encryption of user credentials and secure communication between the front-end and back-end, to ensure the security of the user's information and transactions.

***9. Scalability:***

The system architecture will be designed to handle a large number of users and transactions. It will be scalable to accommodate future growth in the user base and transaction volume.