**NAME: SYED SEEMAB**

**STD ID: 15406**

**ATM System Requirements**

| **Type** | **Requirement** | **Description** |
| --- | --- | --- |
| **Functional** | User Authentication | The system must verify users through their ATM card and PIN before access is granted. |
| **Functional** | Cash Withdrawal | Allows users to withdraw cash within their available balance and daily limit. |
| **Functional** | Balance Inquiry | Enables users to check their current account balance on the screen. |
| **Functional** | Fund Transfer | Allows users to transfer money between accounts of the same or different banks. |
| **Functional** | Deposit Function | Supports depositing cash or cheques and updates account balance accordingly. |
| **Functional** | Mini Statement | Displays or prints a mini statement showing recent transactions. |
| **Functional** | PIN Change | Allows users to securely change their ATM PIN after authentication. |
| **Functional** | Receipt Printing | Prints a receipt with transaction details after each operation. |
| **Functional** | Session Timeout | Automatically logs out the user after a period of inactivity. |
| **Functional** | Error Handling | Displays clear error messages for issues like insufficient balance, invalid PIN, or connection errors. |
| **Functional** | Language Selection | Allows users to select a preferred language for interaction. |
| **Functional** | Card Ejection | Ejects the card safely after transaction completion or timeout. |

NON-FUNCTIONAL REQUIREMENTS:

| **Type** | **Requirement** | **Description** |
| --- | --- | --- |
| **Non-Functional** | Performance | The system should process transactions within 3–5 seconds. |
| **Non-Functional** | Reliability | The system must ensure continuous service and minimize transaction errors. |
| **Non-Functional** | Security | All communications must be encrypted, and sensitive data like PINs must not be displayed or stored in plain text. |
| **Non-Functional** | Usability | The interface should be user-friendly, clear, and support multiple languages. |
| **Non-Functional** | Availability | The ATM must be available 24/7 with scheduled maintenance only during off-hours. |
| **Non-Functional** | Maintainability | The software should allow easy updates and error fixes without service interruption. |
| **Non-Functional** | Scalability | The system should support integration with more ATMs and new banking services in the future. |
| **Non-Functional** | Auditability | Each transaction should be logged for record-keeping and fraud detection. |
| **Non-Functional** | Compliance | The system must comply with banking and financial regulations (e.g., PCI-DSS). |
| **Non-Functional** | Accuracy | The system must ensure precise cash dispensing and account balance updates. |
| **Non-Functional** | Backup & Recovery | The system should maintain data backups and recover quickly after power or network failure. |