**Bank Management System**

**Purpose**:

To develop a Bank Management System that efficiently handles customer transactions and account management securely.

**Requirements:**

1. **Customer Registration**
   * **Action:** Register a new customer with personal details and initial account setup.
   * **Role that can perform the action:** Admin
   * **Edge Case:** Handle duplicate registration attempts with existing customer details.
2. **Customer Login**
   * **Action:** Log in using customer credentials (username and password).
   * **Role that can perform the action:** Customer
   * **Edge Case:** Incorrect password attempts and account lockout after multiple failed attempts.
3. **View Account Details**
   * **Action:** View details of their own account, such as balance, account number, and transaction history.
   * **Role that can perform the action:** Customer
   * **Edge Case:** Scenarios where the account is inactive or closed.
4. **Deposit Funds**
   * **Action:** Deposit funds into the customer's account.
   * **Role that can perform the action:** Customer
   * **Edge Case:** Deposit amounts exceeding account limits or invalid deposit amounts.
5. **Withdraw Funds**
   * **Action:** Withdraw funds from the customer's account.
   * **Role that can perform the action:** Customer
   * **Edge Case:** Withdrawal amount exceeds account balance or exceeds withdrawal limits. A fine will be charged if the account balance falls below the minimum balance requirement.
6. **Transfer Funds**
   * **Action:** Transfer funds from one account to another.
   * **Role that can perform the action:** Customer
   * **Edge Case:** Insufficient funds in the source account or invalid account number for the recipient. Transferring funds beyond a certain limit will require manager’s approval.
7. **Transaction History**
   * **Action:** View all past transactions of their own account.
   * **Role that can perform the action:** Customer
8. **Raise Issue**
   * **Action:** Raise issue or any complaint.
   * **Role that can perform the action:** Customer
9. **View All Accounts**
   * **Action:** View details of all accounts.
   * **Role that can perform the action:** Branch Manager (Only branch specific)**,** Admin
10. **Approve Transactions**
    * **Action:**  Review and approve large transactions or those needing managerial approval.
    * **Role that can perform the action:** Branch Manager
11. **Generate Reports**
    * **Action:** Generate reports such as transaction logs.
    * **Role that can perform the action:** Branch Manager (Only branch specific), Admin
12. **Notifications**
    * **Action:** Send notifications to the user.
    * **Role that can perform the action:** Branch Manager (Only branch specific), Admin
13. **Manage User Roles and Permissions**
    * **Action:** Assign or modify roles and permissions for users (customers, branch managers, admins).
    * **Role that can perform the action:** Admin
    * **Edge Case:** Ensuring proper role assignment to avoid unauthorized access or functionality issues.
14. **Change Password**
    * **Action:** Change the login password for a user.
    * **Role that can perform the action:** Customer, Branch Manager, Admin
    * **Edge Case:** Handling scenarios where the new password does not meet security requirements or is the same as the old password.
15. **Customer Support**
    * **Action:** Assist customers with their queries and issues.
    * **Role that can perform the action:** Branch Manager, Admin