Software Requirements for NewBank

Functional requirements

1. Users shall be divided in two categories: admins and customers
    1.1. Admins shall be able to register customers, their passwords and their accounts.
    1.2. Admins shall be able to remove customer accounts
    1.3. Admins shall be able to register and approve new loans between customers.
2. Customers shall be able able to consult their accounts
    2.1. Customers shall be able to see an overview of their accounts and the amount they contain
    2.2. Customers should be able to consult each account individually and see the history of transactions
    2.3. Customers shall be able to check loan account to see amounts loaned to other customers.
3. Admins shall not have access to the amount of money contained within their customers' accounts
4. Customers shall be able to deposit and withdraw money from an account of their choosing.
5. Clients shall be able to specify transfers
    5.1. Between their own accounts
    5.2. Between their accounts and other customers' accounts
    5.3. Customer shall be able to specify that transfer amount is a loan.
6. Accounts shall contain all the relevant information
    6.1. Account shall contain the full name of the holder
    6.2. Account shall contain the inception date of the account
    6.3. Account shall contain the spot amount
    6.4. Account shall contain a history of transactions
    6.5. Account shall contain a unique identifier, similar to IBAN
    6.6. Account shall contain and show loan amounts outstanding.
    6.7. Account shall contain and show loan amounts due.
7. Admin shall be a able to edit account details
    7.1. Admin shall be able to edit the names of account holders
    7.2. The system should ask if valid ID has been checked before accepting the change
        7.2.1. The system shall reject if the response is 'no'
        7.2.2. The system shall accept if the response is 'yes'
8. The current state of the system shall be persisted (ie. saved and shutdown and loaded at start)
    8.1. The persisted state shall not be encoded
    8.2. The persisted state shall be stored in a standard format such as JSON or XML
9. Customers shall be able to login to and logout of their accounts.
    9.1. Login shall require customer username
    9.2. Login shall require customer password
    9.3. Login shall require customer security question
10. Admins shall be able to login to and logout of their accounts

          10.1.Login shall require admin username

          10.2.Login shall require admin password

          10.3.Login shall require admin employee ID

          10.4.Login shall require admin security question

11. Customers shall be able to loan up to a specified amount to other customers (micro loans)
    11.1.Loan amount will have a maximum amount, which will be dependant on the customers current balance.
    11.2.The loaning customer shall be made aware of any previous non payments of accepting customer.

Non Functional requirements

1. Availability: System shall have minimum downtime for backup and maintenance
    1.1. The system shall be available 24 hours a day, 365 days a year.
2. Security: System shall meet security standards
    2.1. Data shall be encrypted
3. System shall notify customer when it is logging off due to inactivity
    3.1. Customer should have the ability to prevent log-off by responding within specified time.
4. User experience: the UX shall be suitable for its application.
    4.1 Customer UX shall be uncomplicated and easy to understand
    4.1 Help shall be available to a customer who is having issues with the banking app.
5. Banking related activities shall meet relevant banking authority standards for its respective region or country.