**Waterfall Project Part 2**

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**Document -6** **Please prepare a use case diagram, activity diagram and a use case specification document.**

**Use Case Specification Document:**

1. **Use Case Name: KYC addition by Bank Teller**

**Use Case Description**: System allows Bank Teller to add customer’s KYC document.

**Actors**:

Primary Actors: Bank Teller, System Administrator

Secondary Actors: Database

**Basic Flow**:

1.Teller navigates to the KYC addition page.

2.Teller enters Customer number.

3.System validates Customer number.

4.Teller able to add relevant documents of customer for unique identification of customer.

**Alternate Flow**: Invalid/Incorrect Customer number:

• System displays an error message for invalid or incorrect customer number.

• Teller tries to re-enter customer number or enters customer name.

**Exceptional Flows**: System downtime:

• Teller is unable to open KYC addition page.

• System displays maintenance message.

**Pre-Conditions**:

• Teller must be registered in the system and authorized to do operations.

• System must be online.

**Post-Conditions**:

• Teller is logged in and directed to the dashboard and able to navigate to KYC addition page.

**Assumptions**:

• Teller has valid credentials.

**Constraints**:

• High loading times during peak hours.

**Dependencies**:

• Teller database authentication service.

**Inputs and Outputs**:

• Inputs: Username, Password, KYC Document information

• Outputs: Dashboard, KYC addition page, Message for successfully adding KYC.

**Business Rules**:

• KYC document must among the government approved list of documents.

• KYC document must be valid for current financial year.

**Miscellaneous Information**:

• Ensure Customer name search functionality is available in absence of Customer number.

1. **Use Case Name: Cardless cash withdrawal from ATM**

**Use Case Description**: Allows customer to withdraw cash without debit card from ATM.

**Actors**:

Primary Actors: Customer, System Administrator

Secondary Actors: Database

**Basic Flow**:

1.Customer opts for cardless withdrawal option on ATM screen.

2.Customer enters Mobile number and PAN card details.

3.System validates the entered details.

4.Customer is asked to enter amount.

5.System checks balance in customer account as well as cash available in ATM machine.

6.Once done system dispenses cash to the customer.

**Alternate Flow**: Invalid mobile number or PAN card details:

• System displays an error message.

• Customer retries to enter mobile number and PAN card details.

**Exceptional Flows**: Cash unavailable or insufficient cash in the ATM:

• System displays appropriate error message.

**Pre-Conditions**:

• Customer has linked mobile number and PAN card to bank account.

• Customer account balance and ATM cash availability must be maintained.

**Post-Conditions**:

• Customer is able to get cash from ATM.

**Assumptions**:

• Customer has valid mobile number and PAN card details.

**Constraints**:

• Digital illiteracy among customers.

**Dependencies**:

• Customer database authentication service.

**Inputs and Outputs**:

• Inputs: Mobile Number, Pan Card details

• Outputs: Cash, Error messages

**Business Rules**:

• Mobile number, Pard card details, entered amount must meet security requirements.

• Service will be freeze after 3 failed attempts.

**Miscellaneous Information**:

• Ensure use of debit card functionality is available.

1. **Use Case Name: Unified Payment Interface (UPI) payment enabled**

**Use Case Description**: Customers is able to make outgoing payments via UPI id or UPI linked mobile number of beneficiary.

**Actors**:

Primary Actors: Customer, System Administrator

Secondary Actors: Database

**Basic Flow**:

1.Customer opts for UPI to make outgoing payment.

2.Customer enters UPI id or UPI linked mobile number of beneficiary.

3.System validates the entered UPI details and displays beneficiary details.

4.Customer is asked to enter amount.

5.System checks balance in customer account.

6.System asks to enter UPI pin.

7.System validates UPI pin.

8.Once validation successful, amount will be debited from customer account.

9.Payment receipt will be generated.

**Alternate Flow**: Invalid mobile number or UPI details or UPI Pin:

• System displays an error message.

• Customer retries to enter mobile number and UPI details.

**Exceptional Flows**: System downtime:

• System displays appropriate error message.

**Pre-Conditions**:

• Beneficiary has UPI linked mobile number and valid UPI Id.

• Customer account balance must be maintained.

**Post-Conditions**:

• Payment will be made to beneficiary with help of UPI.

**Assumptions**:

• Customer has valid UPI linked mobile number and valid UPI details.

• Beneficiary has valid UPI linked mobile number and valid UPI details

**Constraints**:

• Digital illiteracy among application users.

**Dependencies**:

• Customer database authentication service.

**Inputs and Outputs**:

• Inputs: Mobile Number, UPI details

• Outputs: Payment’s success or rejection, Error messages

**Business Rules**:

• Mobile number, UPI details, entered amount must meet security requirements.

• Service will be blocked after 3 failed attempts.

**Miscellaneous Information**:

• Ensure use of net banking functionality is available.

1. **Use Case Name: Daily UPI outgoing transaction limit**

**Use Case Description**: Restricts daily UPI outgoing transaction above a predefined limit directed by the government.

**Actors**:

Primary Actors: Bank teller, Customer, System Administrator

Secondary Actors: Database

**Basic Flow**:

1.Customer opts for UPI to make outgoing payment.

2.Customer enters UPI id or UPI linked mobile number of beneficiary

3.System validates the entered details.

4.Customer is asked to enter amount.

5.System checks balance in customer account as well as daily outgoing payment limit via UPI.

6.If entered amount is exceeding daily limit then system displays appropriate error otherwise payment will be success.

**Alternate Flow**: Invalid mobile number or UPI details:

• System displays an error message.

• Customer retries to enter mobile number and UPI details.

**Exceptional Flows**: System downtime:

• System displays appropriate error message.

**Pre-Conditions**:

• Beneficiary has UPI linked mobile number and valid UPI Id.

• Customer account balance must be maintained.

**Post-Conditions**:

• Payment will be accepted or rejected based on daily limit validation.

**Assumptions**:

• Beneficiary has valid UPI linked mobile number and valid UPI details.

**Constraints**:

• Digital illiteracy among customers.

**Dependencies**:

• Customer database authentication service.

**Inputs and Outputs**:

• Inputs: Mobile Number, UPI details

• Outputs: Payment’s success or rejection, Error messages

**Business Rules**:

• Mobile number, UPI details, entered amount must meet security requirements.

• Service will be blocked after 3 failed attempts.

**Miscellaneous Information**:

• Ensure use of net banking functionality is available.

1. **Use Case Name: Capture Adhar enabled biometric into database**

**Use Case Description**: Bank Teller is able to capture biometrics of customers from Adhar card to bank database.

**Actors**:

Primary Actors: Bank teller, System Administrator

Secondary Actors: Database

**Basic Flow**:

1.Teller login into the system and navigates to customer information page.

2.Teller clicks on add Adhaar details.

3.Teller enters unique Adhaar number of customer.

4.System validates the Adhaar Number and fetches the biometric data from the repository using API call.

5.Teller adds customers signature into the database for identification.

**Alternate Flow**: Invalid Adhaar number or Customer details:

• System displays an error message.

• Teller retries to enter Adhaar number and Customer details.

**Exceptional Flows**: System downtime:

• System displays appropriate error message.

**Pre-Conditions**:

• Customer has valid Adhaar card number.

• Customer is registered account holder in the bank.

**Post-Conditions**:

• Customer signature is saved into bank’s database.

**Assumptions**:

• Bank has working API system to fetch the details of customers based on Adhaar card number.

**Constraints**:

• Unavailability of technology to capture biometric details.

**Dependencies**:

• Customer database API and authentication service.

**Inputs and Outputs**:

• Inputs: Adhaar Card Number, Customer details

• Outputs: Signature addition into database, Error messages

**Business Rules**:

• Adhaar card number, Customer details and biometric details must meet security requirements.

• Bank Teller should be authorized personal to do the bank operations.

**Miscellaneous Information**:

• Ensure all data handling and processing comply with the relevant provisions of the Indian Aadhaar Act..

**Document -7** **Screens and Pages**

**Document -8 Tools-Visio and Axure**

Using Visio and Axure for this comprehensive banking upgrade project allowed for a streamlined approach in designing and implementing both the technical and user-centric aspects of the solutions.

In Visio, I developed intricate system architecture diagrams to illustrate the FLEXCUBE Universal Banking Solution's patch-set upgrade and data migration process. These visualizations ensured that stakeholders and technical teams clearly understood dependencies and workflows, particularly when implementing the Oracle Banking Payments module to offload existing payment interface loads.

On the other hand, Axure was essential in creating interactive prototypes to demonstrate new features like KYC integration, electronic signatures, and mobile banking enhancements, including UPI functionality and cardless ATM withdrawals. These prototypes enabled iterative feedback, facilitating improvements in usability and compliance alignment. This dual-tool approach fostered effective collaboration across teams, minimized ambiguities, and ensured that project objectives were met efficiently and effectively.

**Document 9- BA experience**