1.

Acceptance Criteria for Feature 1 on Rule based standard

**Merchant Bill Payments:**

1. **Service Charge:**
   * 1% service charge must be deducted from the customer's balance for each merchant bill payment.
   * The minimum transaction fee applied must be 5 TK.
2. **Cashback for Transactions Over 5000 TK:**
   * If the transaction amount exceeds 5000 TK, the customer should receive a 10% cashback.
   * The cashback should be calculated as 10% of the transaction amount.
   * The cashback should be credited to the customer's account immediately after the transaction.
3. **Cashback for Transactions Over 10,000 TK:**
   * If the transaction amount exceeds 10,000 TK, the customer should receive a 20% cashback.
   * The maximum cashback amount should be capped at 3000 TK, regardless of the transaction amount.
   * The cashback should be calculated as 20% of the transaction amount or 3000 TK, whichever is lower.
   * The cashback should be credited to the customer's account immediately after the transaction.
4. **Utility Bill Payments:**
   * No cashback should be applied for utility bill payments.
   * Only the specified service charge for the transaction should be deducted.

**5.Balance Update:**

* After a successful transaction, the customer’s balance should be updated to reflect the deduction of the service charge.
* Cashback (if applicable) should be added to the customer’s balance immediately after the transaction.

6.**Transaction History:**

* The transaction history should accurately record details including transaction amount, service charge, and cashback.
* Transaction history should be updated in real-time to reflect the latest transactions.

7. **Notification:**

* The customer should receive a notification (SMS or app notification) confirming the transaction details including the service charge and any cashback received.

8. **Error Handling:**

* If there is insufficient balance to cover the transaction amount and service charge, the transaction should be declined.
* The customer should receive an appropriate error message indicating insufficient balance.

9. **Minimum Transaction Fee:**

* Ensure that the service charge applied is never less than the minimum fee of 5 TK, even if the percentage-based charge is lower.

**10.System Performance:**

* Ensure that service charges and cashback calculations are processed within a reasonable time frame and do not cause delays in transaction completion.

1. Acceptance Criteria for Feature 2 on Rule based standard

**1.Loan Application Eligibility:**

* + Customer should have a balance of less than 100 TK to be eligible to apply for a loan.
  + The maximum loan amount a customer can apply for is 20,000 TK.

1. **Loan Repayment Within 30 Days:**
   * If the customer repays the full loan amount within 30 days from the loan initiation day:
     + No interest will be charged.
     + The customer’s balance should be updated to reflect the repayment.
2. **Interest Calculation for Late Repayment:**
   * If the customer fails to repay the loan within 30 days:
     + A daily compound interest of 1.8% should be applied to the remaining loan amount.
     + Interest should be compounded daily based on the remaining balance.
3. **Eligibility for Additional Loan:**
   * If a customer has paid at least 50% of the remaining loan balance within 30 days:
     + The customer should be eligible to apply for another loan.
     + The new loan amount should be up to 20,000 TK or the maximum allowed by the system.
4. **Loan Application Process:**
   * When applying for a loan, ensure:
     + The customer’s balance is less than 100 TK.
     + The loan amount requested does not exceed 20,000 TK.
     + The loan application is approved based on these criteria.
5. **Repayment Tracking:**
   * Track the loan repayment status to determine if the repayment is made within 30 days or late.
   * Update the remaining balance and interest calculations accordingly.
6. **Interest Calculation Accuracy:**
   * Ensure that the daily compound interest is calculated accurately at a rate of 1.8%.
   * Verify that interest is compounded daily and added to the remaining balance correctly.
7. **Loan History Update:**
   * The loan history should accurately record details including the loan amount, repayment amount, interest charged (if any), and any new loans applied for after partial repayment.
8. **Notification:**
   * Notify the customer of the loan approval, repayment status, and any interest charges incurred.
   * Notify the customer when they become eligible to apply for another loan after repaying 50% of the remaining balance.
9. **Error Handling:**
   * If the customer tries to apply for a new loan without meeting the repayment criteria (e.g., hasn’t paid 50% of the remaining balance), the application should be declined with an appropriate message.
10. **System Performance:**
    * Ensure that loan applications, repayments, and interest calculations are processed efficiently and in real-time to reflect accurate balance updates and eligibility status.

Question 4: Prioritization sequence  
 Feature id 4> Feature id 6> Feature id 3> Feature id 5> Feature id 1> Feature id 2

Explanation:

* We start with independent features or those with the least dependencies.(Feature 4 has no dependencies)
* Then, we proceed with features that depend on already completed ones.