2CS504

SE

Practical 4

Use Case Specification & Use Case Diagram

Banking Management System

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Use Case Id: 1
Use Case Name: Register
Primary Actor: Customer
Precondition: User should have a proper device either it be laptop or desktop or tablet or smartphone with stable internet connection and registration page is shown by the system.
Postcondition: After sign up the user will be redirected to the login page
Scenario:
1. If a user has an account, then he/she is required to enter the details within the login page.
2. If a user enters the correct details, then he/she will be redirected to the login page.
3. If a user does not provide correct details, then he/she will be prompted to "invalid credential" and in this case he/she has to try again.
Exceptions:
1. There is a chance that the server has huge traffic.
2. There is a chance that the database is very busy and it shows errors.
3. If user account already exist in the database then it will not duplicate the new instance but will show warning that account already exist
Related Use Cases:Verify Details,Invalid 4-digit pin.

Use Case Id: 2
Use Case Name: Login
Primary Actor: Customer
Precondition: User should have a proper device either it be laptop or desktop or tablet or smartphone with stable internet connection and login page is shown by the system.
Postcondition: After login the user will be redirected to the appropriate home page depending upon the actor's type.
Scenario:
1. If a user does not have an account, then he/she will be redirected to the sign-up page.
2. If a user has an account, then he/she is required to enter the details.
3. If a user enters the correct details, then he/she will be redirected to the home page.
4. If a user does not provide correct details, then he/she will be prompted to "invalid credential" and in this case he/she has to try again.
Exceptions:
1. There is a chance that the server has huge traffic.
2. There is a chance that the database is very busy and it shows errors.
Related Use Cases:Verify Details,Invalid 4-digit pin.

Use Case Id: 3
Use Case Name:Transaction history
Primary Actor: Customer
Precondition: User should be logged in with proper credentials
Postcondition:After entering correct details a list of transaction history will be shown
Scenario:

1. At times a user can't see the latest transaction he/she needs to reopen the application or login again.

2.If such problems still contact administration.

Exceptions:

1. There is a chance that the server has huge traffic.

2. There is a chance that the database is not updated due to service which may not fetch you updated data.

Related Use Cases:N.A.

Use Case Id: 4

Use Case Name: Change 4-digit pin

Primary Actor: Customer

Precondition: User should be logged in with proper credentials

Postcondition:After entering correct details about last pin user will be able to update the pin

Scenario:

1. If the user forgets then he/she should contact the bank administrator .

2.If the attempt exceeds 5 then the bank account would be automatically locked.

Exceptions:

1. There is a chance that the pin entered correctly may not be shown correct.

2. Also after updating the new one it might take some time to process for the server.

Related Use Cases:N.A.

Use Case Id: 5

Use Case Name: Make Payment

Primary Actor: Customer

Precondition: User should be logged in with proper credentials

Postcondition:After entering correct details the user will be able to transfer the money.

Scenario:

1. After successful login users will be able to transfer without any difficulty.

2. Acknowledgement from the bank in the form of SMS will be sent.

Exceptions:

1. Sometimes due to service unavailability transactions may not be successful.

2.Minimum amount of balance is compulsory to incorporate any kind of transaction.

Related Use Cases:Check for enough funds.

Use Case Id: 6

Use Case Name: Check Balance

Primary Actor: Customer

Precondition: User should be logged in with proper credentials

Postcondition:After entering correct details the user will be able to check balance.

Scenario:

1. After successful login users will be able to see bank balance.

Exceptions:

1.After a recent transaction it might not show updated balance refresh the page.

2.If it doesn't show the correct figure contact the bank administration.
Related Use Cases:NA.

Use Case Id: 7
Use Case Name: Issue Cheque Book
Primary Actor: Customer
Precondition: User should be logged in with proper credentials and request a cheque book from the account.
Postcondition: After requesting a cheque book and entering proper details the customer will get the cheque book at a particular address.
Scenario:
1. After login and requesting a cheque book; the check book will be issued to the particular address mentioned by the user and will be directed to the successfully issued in this many days -page.
Exceptions:
1. There is a chance that the user enters the wrong address.
2. There is a chance that the user does not receive cheque book in a limited time then apply again.
Related Use Cases:NA

Use Case Id: 8
Use Case Name: Withdraw money
Primary Actor: Customer
Precondition: User should be logged in with proper credentials.
Postcondition:After entering correct details the user will be able to withdraw money having enough balance in the account.
Scenario:
1. After successful login users will be able to withdraw money after entering the correct pin or otp received via message user will be displayed an error message if wrong pin or otp entered.
2. The user should have enough funds in the account to withdraw the money.
3. After withdrawal the user will be directed to the successfully withdrawn page.
Exceptions:
1. Sometimes due to service unavailability withdraw may be interrupted.
2.Enough funds required to make the required amount of money withdrawal.
3. If otp or pin is entered wrong many times the account will be blocked and allow no more withdrawal.
Related Use Cases:Check for enough funds , enter 4-digit pin/otp.

Use Case Id: 9
Use Case Name: Solve User Queries
Primary Actor: Employee
Precondition: Employee should get an interface in which the employee can get details of the user queries.

Postcondition: The employee should solve the queries and provide a proper solution.
 Scenario:
1. The employee will login to the system.
2. He/She will check if there is any new query available in the user query option.
3. The employee will be directed to the user facing issues.
4. The employee will solve the query and if the user is satisfied with the result they will click on the query resolved and the employee can now direct back to the home page.
Exceptions:
1. System cannot fetch proper details of the user query in the proper time due to some delay.
2. Even if the query is solved the user doesn't click on the resolved query and the query persists.
Related Use Cases: NA

Use Case Id: 10
Use Case Name: manage debit and credit cards
Primary Actor: Employee
Precondition: Employee should get an interface in which the employee can get details of the user debit and credit cards details.
Postcondition: The employee should manage the details properly
 Scenario:
Exceptions:
Related Use Cases: NA

Use Case Id: 11
Use Case Name: Tracking of transactions and any malfunctioning activities
Primary Actor: Employee
Precondition: Employee should get an interface in which the employee can track transactions and any malfunctioning.
Postcondition: The employee will block malfunctioning accounts and will track all transactions.
Scenario:
1. The employee will login to the system.
2. The employee will be directed to track all the transactions of the users by clicking the transactions option.
3. If an employee sees any unwanted transfers or activities in a user account they can block the account.
4. The employee keeps a track of all the activities of all the user accounts by going through their transactions and account history.
Exceptions:
1. System cannot load all the new transactions of the users due to heavy load in that case try refreshing the page.
Related Use Cases: NA

Use Case Id: 12
Use Case Name: user management (activate deactivate account)
Primary Actor: Employee
Precondition: Employee should get an interface in which the employee can activate and deactivate the users account based on users request or due to employee direction.
Postcondition: The employee here has activated or deactivated the user accounts and managed user information.
 Scenario:
1. The employee will login to the system.
2. The employee will be directed to manage the user information after clicking the user management option and perform functions accordingly.
3. The employee will be directed to a page in the user management system where they can deactivate or activate a user account.
Exceptions:
1. Due to low connectivity the employee cannot perform the activation or deactivation on time.
Related Use Cases: NA

Use Case Id: 13
Use Case Name:loan facility
Primary Actor: customer
Precondition:
Customer must have registered and logged into his account. Also, the loan approval criteria must be applicable to the customer. Moreover, all the necessary documents must be available with the customer.
Postcondition:
After the loan is approved by the employee, the customer will have the requested amount of money in his bank account.
 Scenario:
1. The customer will login to the system.
2. The customer will move to the loan facility page, enter the correct 4-digit pin
3. The customer will submit the loan application form, with the required attachments.
4. The loan will be approved if the customer is declared eligible by the employee, and the requested money will be transferred to the customer's bank account.
5. Also , a list of his further interest dues with their respective due-dates is provided to customer by the employee for his reference.

Exceptions:
1. If the customer has submitted wrong credentials or wrong required attachments, loan is disapproved.
Related Use Cases: NA

Use Case Id: 14
Use Case Name:database administration
Primary Actor: admin

Precondition: The interface used for DBMS must be available and running properly.(e.g. Phpmyadmin, oracle, mysql, etc.)

Postcondition: Every database (tables/ transaction history/details of customers/details of employees/bank account details,and many more)will be properly handled and checked for any kind of data loss and fixed accordingly.

Scenario:
1. The admin will access the interface for DBMS.
2. Any transactions made/ any changes in the current database will be done accordingly.
3. After all the changes made, a backup will also be taken by the admin, in case of any dataloss.
4. All the changes will be committed accordingly.

Exceptions:
While updating/inserting/deleting any data, if the DBMS software crashes, or the device is powered off, all the operations need to be repeated.

Related Use Cases:NA

Use Case Id: 15
Use Case Name:notification about all updates
Primary Actor: admin
Precondition: Separate groups must be created on different platforms such as Gmail, Whatsapp,etc for customers/employees.
Postcondition:Each and every customer as well as employee will be emailed about the latest updates/events occurring in the bank.
Customer will get emails and sms about the transaction history or loan interest reminders on request through email.

Scenario:
1. Admin will login to the particular platform for sending notifications.
2. The updates for any upcoming events will be sent to everyone in the database.
3. The customer related transaction history/interest due-date reminder will be sent to particular customer only.

Exceptions:
Any issue in the network can delay the process.

Related Use Cases:NA

Use Case Id: 16
Use Case Name:report management
Primary Actor: admin
Precondition: The admin must have connected to the report management system such as google data studio, Tableau, etc.

Postcondition: Reports such as profits for bank, Interests of customer, Employee performance, etc are created and updated for better efficiency in work as well as better services provided to the customer.

Scenario:

1. The admin will connect to his report management software.
2. The admin will perform create,update,modify and many other operations in the software to make the reports(graphs, plots,bar graphs,pies) look informative and easy to understand.

Exceptions:NA

Related Use Cases:NA

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