ABC Retail Banking Application

Executive Summary

Objective – The objective of this application to automates daily banking operations. This application facilitates Banker to manage bank account at the high level like opening a new account for each individuals/ updating the each individuals account information's. It will help each individual account owner to manage their account as well. It also provides one search tool that help bankers/ investors to search records based on account owner name and existing account number. It implements role base access to each web page.

Assumptions -
1. Application user has to login into the applications to manage bank account. Login information's are not included into the problem statement. We are assuming that all login related information's are available in the database table (Table Name – Customer Information).
2. Based on the user role defined in the customer information table all web pages will be loaded to each individuals account.
3. Accounts provided by banking cannot have more than one owner.

Target Audience – ABC Retail bank's employees (Banker/Investor), ABC Retail Bank's customers etc.

Salient Feature of ABC Retail Bank Account

ABC Retail bank will provide following type of accounts to their customers. Here are the details of account.

1) **Savings Bank Account –** A Savings bank account is the most common operating account for individuals and others for non-commercial transactions. A Savings account helps people to put through day-to-day banking transactions besides earning some return on the savings made. Banks generally put some ceilings on the total number of withdrawals permitted during specific time periods. Banks also stipulate certain minimum balance to be maintained in savings accounts.

2) **Current Bank Account –** User can do transaction as many as they can. Annual service charge is $ 150 which will be deducted from customer account through ECS process at the end of each fiscal year. Minimum balance of this kind of account defined by bank is $ 2000. At any circumstances if account balance goes down below said amount then bank deduct $ 2 from account in favor of penalty.

3) **Checking Account –** Any individual can do transaction as many as they can. This kind of account used for pay bills, purchasing, transfer money to another accounts and many other usages. Institute may impose fees on checking account of amount $ 50 yearly. Any combination of below three rules can be used by the banks. Those are
   a. Flat fee regardless of the balance maintained or number of transactions.
   b. Additional fee if average balance goes down below a specified amount.
   c. A fee for every transaction conducted.

FIXED OR TIME DEPOSITS

Time deposits are deposits accepted by banks for a specified period of time. As per rule defined by federal bank of US directives the minimum period for which term deposit can be accepted is 15 days. The retail banks generally do not accept deposit for less than 15 days or more than 10 years. Banks pay interest on term deposits based on the period of deposits and normally pay higher interest for longer term deposits. Banks have full discretion to fix

their interest rates on deposits and these rates are varied from time to time depending on market conditions. Changes made in interest rates from time to time do not alter the interest paid on the existing deposits. Depositor can collect interest on every quarter/ every month/ half yearly / annually. Retail bank can quote a higher rate of interest for each individual deposits more than $ 150 000. To incorporate the above functionality, developers has to write some batch process/ job which will run on every 15 days of the calendar month and credit the interest amount to each individuals account.

Note – Since most of account provides cheque facility, there should be a table in the database that holds the cheque numbers and which is mapped to particular customer id. This information will be useful while user want to see account summary report based on the cheque number.

Main Functionality

1) Open account and linked to a particular user.
2) Update account detail information.
3) View account details based search criteria.
4) Report based on account summary over definite period with download to excel functionality.
5) Search functionality by account name, account number etc.

Main Modules

1) Login
2) Account Summary
3) Search by account name, account number etc.

Access

Role – Admin, user

Process Flow

Login Module – All Login information's are available in the customer information table. Application user has to login into the application to manage account.

Account Module – Account module has following functionalities,
1) Open a new account (Single/Join Account) and link account to particular user,
2) Update account details information,
3) Account transaction details
4) View account summary based on search criteria.
5) Report based on account summary over definite period with download to excel functionality.

Open Account Functionality – Admin user can open a new account and link that account to particular user. While opening a new account admin user has to provide mandatory information's which plays security role internal to the bank.

Related work flow – To populate customer id field in the create account page, user has to click on the icon that will open up a popup window on the top of parent page and search with customer name to get customer name.

Popup page layout – label – Search
                    Text box – enter customer name.
                    Search button to trigger search.

Result – result contains customer id, customer name and radio button attached with each record. User has to choose customer id on selecting radio button from the popup. An event should be fired on selecting radio button in the popup page and it will in turn close the popup page and populate the customer id field in the parent page.

c. Primary Account owner – text field and read only, should populate from above work flow.
d. Branch name – drop down, populated from branch
table e. Initial balance – text field, accept only number. f.
Create Account – button

Event – on click of open Account button, account number will be generated and should display in the confirmAccountNumber.jsp page.
Validation – java script validation should be applied to following fields.
Customer id, account type, primary account owner name and initial balance.
Result Page – confirmAccountNumber.jsp – display account number, customer id,
Access – Admin user can create new account.

Update Account Functionality – Account functionality enable bankers to update the customer bank account balance based on the transaction made by customer using credit card / debit card/cheque. Application should provide some interface that will help customer to update his/her personal information as well.

To incorporate fund transfer functionality, application should provide some interface that will help user to transfer electronic money from one account to another account. Fund transfer can be done to the other account of same bank.

Note – **Fund transfer,** refers to the computer-based systems used to perform financial transactions electronically. The term is used for a number of different concepts:

Account holder initiated transactions, where an account holder makes use of electronic interface provided by bank. Transactions involving stored value of electronic money, possibly in a private currency Wire transfer via an international banking network.

Account Summary Functionality – Summary page contains the summary of all account linked to particular user. Layout should be like as follows,

   a. Account Number,
   b. Account type,
   c. Balance,
   d. Last transaction date time,
   e. Link for detail account statement. Mini statement and Detail statement.

From account summary page any individual can traverse to mini state page or detail statement.

Layouts for mini/detail statement are as follows,

   a. Transaction date,
   b. Transaction remarks,
   c. Transaction type (debit/ credit)
   d. Balance on date,
   e. Transaction amount,
   f. From account number,
   g. To account number,
   h. Transaction time stamp
   i. Transaction id,
   j. Transaction status.

Mini account summary statement contains last ten transactions detail where as detail account summary report will be generated based on the search criteria. Detail account summary report has following filter criteria to retrieve transaction data from database. User has to choose one of the search criteria mentioned and below and they can run the report. Download to excel functionality is attached with detail account summary report.

     a. from date and to date,
     b. Transaction amount less or above.
     c. Monthly
     d. Annually
     e. Based on cheque number etc.

Access – admin user and individual account owner can run the account summary reports.

Search Process Flow -

User has to enter search by text in the text field and has to choose the search criteria from drop and client on the search button to trigger search. It will invoke middle tier classes and display search result in the same page.

Search page Layout –

Search by account name, account number

Search functionality will not be available to all users. User has admin access/role can only do search by account name, account number, and client name etc. Search page link will be available in the home page of each user. Search results will be appended below the search section. Search layout will be different for each search criteria. Search page layout contains following fields.
Validation – user has to provide search criteria values in the text fields otherwise search process will not be triggered.
Fields – Search – Label
Drop down with search by options [Account name, Account Number, Client Name] Search - submit button.

Result page Layout -

Account number/ Account Search

     a. Account Primary Owner Name [hyperlink, please refer note1]
     b. Account Number [hyperlink, please refer note2]
     c. Type
     d. Balance
     e. Address
     f. Branch name etc.