

# Banking Project

## Software Requirements Specification

1.1

22/11/2021

**Prepared for**

POC for STEER - Batch

## **Revision History**

Date	Description	Author	Comments
08/10/2021	Version 1	Saheer Ali Khan	Initial Draft

# Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Printed Name	Title	Date

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# **1. Introduction**

The Bank project aims to provide net banking facility to its customers.

This release will have limited features. Over a period, new and new functionalities will be added to the site.

## **1.1 Purpose**

*The Purpose of this document is to outline the requirements for the Banking website to be developed for Tech. Pvt. Ltd. This document will be used by all stakeholders including developers and testers.*

## **1.2 Scope**

*All the functional requirements are in scope.*

## **1.3 Definitions, Acronyms, and Abbreviations**

<b>Abbreviation</b>	<b>Word</b>
M	Manager
C	Customer

## **1.4 References**

*Nil*

## 2. Specific Requirements

The Bank will have 2 roles

1. Manager
2. Customer

Following features/modules will be available to these 2 different roles

Manager	Customer
New Customer	Balance enquiry
Edit Customer	Fund Transfer
Delete Customer	Mini Statement
New Account	Customized Statement
Edit Account	Change Password
Delete Account	Login & Logout
Deposit	
Withdrawal	
Fund Transfer	
Change Password	
Balance Enquiry	
Mini Statement	
Customized Statement	
Login & Logout	

## Description of the modules

Module Name	Applicable Roles	Description
Balance Enquiry	Manager Customer	<b>Customer:</b> A customer can have multiple bank accounts. He can view balance of his accounts only <b>Manager:</b> A manager can view balance of all the customers who come under his supervision
Fund Transfer	Manager Customer	<b>Customer:</b> A customer can have transfer funds from his "own" account to any destination account. <b>Manager:</b> A manager can transfer funds from any source bank account to destination account
Mini Statement	Manager Customer	A Mini statement will show last 5 transactions of an account <b>Customer:</b> A customer can see mini-statement of only his "own" accounts <b>Manager:</b> A manager can see mini-statement of any account
Customized Statement	Manager Customer	A customized statement allows you to filter and display transactions in an account based on date, transaction value <b>Customer:</b> A customer can see Customized- statement of only his "own" accounts <b>Manager:</b> A manager can see Customized -statement of any account
Change Password	Manager Customer	<b>Customer:</b> A customer can change password of only his account.

		<b>Manager:</b> A manager can change password of only his account. He cannot change passwords of his customers
New Customer	Manager	<b>Manager:</b> A manager can add a new customer.
	Manager	<b>Manager:</b> A manager can edit details like address, email , telephone of a customer.
New Account	Manager	<p>Currently system provides 2 types of accounts</p> <ul style="list-style-type: none"> <li>• Saving</li> <li>• Current</li> </ul> <p>A customer can have multiple saving accounts (one in his name , other in a joint name etc).</p> <p>He can have multiple current accounts for different companies he owns.</p> <p>Or he can have a multiple current and saving accounts.</p> <p><b>Manager:</b> A manager can add a new account for an existing customer.</p>
Edit Account	Manager	<b>Manager:</b> A manager can add a edit account details for an existing account
Delete Account	Manager	<b>Manager:</b> A manager can add a delete an account for a customer.
Delete Customer	Manager	<p>A customer can be deleted only if he/she has no active current or saving accounts</p> <p><b>Manager:</b> A manager can delete a customer.</p>
Deposit	Manager	<b>Manager:</b> A manager can deposit money into any account. Usually done when cash is deposited at a bank branch.
Withdrawal	Manager	<b>Manager:</b> A manager can withdraw money from any account. Usually done when cash is withdrawn at a bank branch.

## **2.1 External Interface Requirements**

### **2.1.1 User Interfaces**

None

### **2.1.2 Hardware Interfaces**

None

### **2.1.3 Software Interfaces**

None

### **2.1.4 Communications Interfaces**

None

## **3.1 Front End Details**

This section describes the Front end of Bank.

It also lists a few use cases to describe the functioning of the system

Following is a list of module wise fields

### **Fund Transfer**

- Payers account no
- Payees account no
- Amount
- Submit
- Reset

### **Change Password**

- Old Password
- New Password
- Confirm Password
- Submit
- Reset

### **Balance enquiry**

- Account No

- Submit
- Reset

### **Mini Statement**

- Account No
- Submit
- Reset

### **Customized Statement**

- Account No
- From Date
- To Date
- Amount Lower Limit
- Number Of Transaction
- Submit
- Reset

### **New Customer**

- Customer Name
- Gender
- Date of Birth
- Address
- City
- State
- PIN
- Telephone Number
- Email Id
- Submit
- Reset

### **New Account**

- Customer Id
- Account Type
- Initial deposit
- Submit



- Reset

### **Deposit**

- Account Number
- Amount Deposit
- Description
- Submit
- Reset

### **Withdraw**

- Account Number
- Amount
- Description
- Submit
- Reset

### **Delete Customer**

- Customer Id
- Submit
- Reset

### **Edit Account**

- Account Number
- Submit
- Reset

### **Form after submitting Edit Account**

- Customer Id
- Account Type (Drop Down - Saving or Current)
- Balance
- Submit
- Reset

### **Delete Account**

- Account Number
- Submit

- Reset

#### **Edit Customer**

- Customer Id
- Submit
- Reset

#### **Form after submitting Edit Customer**

- Customer Name
- Gender
- Date of Birth
- Address
- City
- State
- PIN
- Telephone Number
- Email Id
- Submit
- Reset

## **3.2 Technical Requirements**

### **New Account**

- T1** Customer Id - Customer ID is required
- T2** Customer Id - Special character are not allowed
- T3** Customer Id - Characters are not allowed
- T3.1** Customer Id - First character cannot have space **New Customer**

- T4** Customer Name – Numbers are not allowed
- T5** Customer Name – Special characters are not allowed
- T6** Customer Name - Customer name must not be blank
- T7** Customer Name - First character cannot have space
- T8** Address - Address Field must not be blank
- T9** Address - First character can not have space

- T10** Address - Special characters are not allowed
- T11** City - Special character are not allowed
- T12** City - City Field must not be blank
- T13** City – Numbers are not allowed
- T14** City - First character can not have space
- T15** State – Numbers are not allowed
- T16** State - State must not be blank
- T17** State – Special characters are not allowed
- T17.1** State – First character cannot have space
- T18** Pin - Characters are not allowed
- T19** Pin - PIN Code must not be blank
- T20** Pin – Special characters are not allowed
- T21** Pin – PIN Code must have 6 Digits
- T22** Pin - First character can not have space
- T23** Telephone Number – Mobile no must not be blank
- T24** Telephone Number – Special character are not allowed **T25**  
Telephone Number – Character are not allowed
- T26** Telephone Number - First character can not have space
- T27** Email : Email ID must not be blank
- T28** Email : Email ID is not valid
- T29** Email : First character can not have space

### **Balance Enquiry**

- T30** Account No must not be blank
- T31** Special character are not allowed
- T32** Characters are not allowed

### **Customized Statement Form**

- T33** Account No - Account Number must not be blank
- T34** Account No - Characters are not allowed
- T35** Account No - Special characters are not allowed
- T36** Amount Lower Limit – Special character are not allowed
- T37** Amount Lower Limit – Amount Lower Limit is required
- T38** Amount Lower Limit – Characters are not allowed
- T39** Number of Transaction – Special character are not allowed

**T40** Number of Transaction - Number of Transaction must not be blank

**T41** Number of Transaction – Character are not allowed

### **Delete Account Form**

**T42** Account No must not be blank

**T43** Special character are not allowed

**T44** Characters are not allowed **Delete**

### **Customer**

**T45** Customer Id - Customer ID is required

**T46** Customer Id - Special character are not allowed

**T47** Customer Id - Characters are not allowed

**T47.1** Customer Id - First character cannot have space **Deposit**

**T48** Account No must not be blank

**T49** Special character are not allowed

**T50** Characters are not allowed

**T51** Amount field must not be blank

**T52** Special characters are not allowed

**T53** Characters are not allowed

**T54** Description must not be blank

### **Edit Account**

**T55** Account No must not be blank

**T56** Special character are not allowed

**T57** Characters are not allowed **Edit**

### **Customer form**

**T58** Customer Id - Customer ID is required

**T59** Customer Id - Special character are not allowed

**T60** Customer Id - Characters are not allowed

**T60.1** Customer Id - First character can not have space **Edit**

### **Customer**

**T61** Address - Address Field must not be blank

**T62** Address - First character can not have space

**T63** Address - Special characters are not allowed

**T64** City - Special character are not allowed

- T65** City - City Field must not be blank
- T66** City – Numbers are not allowed
- T67** City - First character can not have space
- T68** State – Numbers are not allowed
- T69** State - State must not be blank
- T70** State – Special characters are not allowed
- T70.1** State – First character cannot have space
- T71** Pin - Characters are not allowed
- T71** Pin - PIN Code must not be blank
- T72** Pin – Special characters are not allowed
- T73** Pin – PIN Code must have 6 Digits
- T74** Pin - First character cannot have space
- T75** Telephone Number – Mobile no must not be blank
- T76** Telephone Number – Special character are not allowed
- T77** Telephone Number – Character are not allowed
- T78** Telephone Number - First character cannot have space
- T79** Email : Email ID must not be blank
- T80** Email : Email ID is not valid
- T81** Email : First character cannot have space

### **Fund Transfer**

- T82** Payers Account Number must not be blank
- T83** Special characters are not allowed
- T84** Characters are not allowed
- T85** Payees Account Number must not be blank
- T86** Special characters are not allowed
- T87** Characters are not allowed
- T88** Amount Field must not be blank
- T89** Characters are not allowed
- T90** Special characters are not allowed
- T91** Description cannot be blank

### **Login**

- T92** User-ID must not be blank
- T93** Password must not be blank

## **Mini Statement Page**

**T94** Account No must not be blank

**T95** Special character are not allowed

**T96** Characters are not allowed **Change Password**

**T97** Old Password must not be blank

**T98** New Password must not be blank

**T99** Enter at-least one numeric value

**T100** Enter at-least one special character

**T101** Choose a difficult Password

**T102** Confirm Password must not be blank

**T103** Passwords do not Match

## **Withdraw**

**T104** Account No must not be blank

**T105** Special character are not allowed

**T106** Characters are not allowed

**T107** Amount Field must not be blank

**T108** Characters are not allowed

**T109** Special characters are not allowed

**T110** Description cannot be blank

## **3.3 Functional validations**

### **Balance Enquiry**

#### Manager

**F1** Manager can view balance of accounts associate with him

**F2** Account number entered should exist in database

#### Customer

**F3** Customer can view balance of only his accounts

**F4** Account number entered should exist in database

### **Fund Transfer**

#### Manager

- F5** If these source and destination account numbers are invalid, system displays an error
- F6** If these source and destination account numbers are same, system displays an error
- F7** If the source account does not have the necessary balance, system displays an error
- F8** If the source account does not associate with manager, System displays an error

#### Customer

- F9** If the destination account number is not valid, system displays an error
- F10** If these source and destination account numbers are same, system displays an error
- F11** If the source account does not have the necessary balance, system displays an error
- F12** If the source account is not associate with customer itself, System displays an error.

#### **Withdrawal**

##### Manager

- F13** If source account number is invalid, system displays an error
- F14** If source account does not have the necessary balance, system displays an error **F15**  
If source account does not associate with manager, System displays an error.

##### Customer

- F16** If source account number is invalid, system displays an error
- F17** If source account does not have the necessary balance, system displays an error **F18**  
If source account does not associate with customer, System displays an error.

#### **Deposit**

##### Manager

- F19** If destination account number is invalid, system displays an error
- F20** If destination account number does not associate with manager, System displays an error.

##### Customer

- F21** If destination account number is invalid, system displays an error
- F22** If destination account number does not associate with customer, System displays an error.

#### **Delete Customer**

##### Manager

- F23** If Customer Id is invalid, system displays an error.
- F24** If account associate with Customer Id, System displays an error.

**F25** If Customer Id does not associate with manager, System displays an error.

### **Delete Account**

#### Manager

**F26** If Account Number is invalid, system displays an error

**F27** If account does not associate with manager logged in, System displays an error.

### **Edit Account**

#### Manager

**F28** If Account Number is invalid, system displays an error.

**F29** If Account number does not associate with manager, System displays an error.

### **New Account**

#### Manager

**F30** If Customer ID is invalid, system displays an error.

**F31** If initial deposit is less than 500, System displays an error.

**F32** If Customer Id does not associate with manager, System displays an error.

### **New Customer**

#### Manager

**F33** If same Email Id exist in the system, system shows an error.

### **Edit Customer**

#### Manager

**F34** If same Email Id exist in the system, system shows an error.

**F35** If Customer Id is invalid, System displays an error.

**F36** If Customer Id does not associate with Manager, System displays an error.

### **Change Password**

#### Manager

**F37** If Old Password is invalid, System shows an error.

#### Customer

**F38** If Old Password is invalid, System displays an error



**Customized Statement**Manager

**F39** If account no is invalid, System displays an error

**F40** If From Date is greater than To Date, System displays an error.

Customer

**F41** If account no is invalid, System displays an error

**F42** If From Date is greater than To Date, System displays an error.

**Mini Statement**Manager

**F43** If account no is invalid, System displays an error

**F44** If transaction does not exist in system, System displays an error.

**F45** If account does not associate with manager itself, System displays an error.

Customer

**F46** If account no is invalid, System displays an error.

**F47** If account associate with customer itself, System displays an error.

**Balance Enquiry**Manager

**F48** If account no is invalid, System displays an error

Customer

**F49** If account no is invalid, System displays an error

### **3.4 Classes / Objects**

3.5.1.1 Attributes

3.5.1.2 Functions

**HLD & LLD**

### **3.5 Non-Functional Requirements**

Nil

### **3.6 Inverse Requirements**

Nil.

### **3.7 Design Constraints**

Many of the Bank users may not have adequate computer knowledge to use the site. Hence, System must be intuitive and easy to understand.

### **3.8 Logical Database Requirements**

Nil

### **3.9 System/Application Architecture**

(System Architecture)

(Application Architecture)

### 3.10 Component Architecture

## 4. Analysis Models

## 5. Change Management Process

Changes to the SRS either from the development, testing team or the client side will be communicated to the project sponsor Mr Krishna Rungta.

Any change made to the SRS will require a sign off from the Development lead, QA lead and the client.

Once approved changed will be made to the SRS and the new SRS will be circulated to all stakeholders

## A. Appendices

*Nil*