**ABC Banking Project Software Requirements Specification**

**Prepared for XYZ Software Company limited**

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**Document Approval**

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

|  |  |  |
| --- | --- | --- |
| Printed | Title | Date |
| Nick Price | Lead Software Eng. | 29/11/2013 |
| Sam Patrick | Lead QA Engineer | 29/11/2013 |
| John Smith | Project Sponsor | 29/11/2013 |

**1. Introduction**

**1.1 Purpose**

**1.2 Scope**

**1.3 Definitions, Acronyms, and Abbreviations**

**1.4 References**

**2. Specific Requirements**

**2.1 External Interface Requirements**

**2.1.1 User Interfaces**

**2.1.2 Hardware Interfaces**

**2.1.3 Software Interfaces**

**2.1.4 Communications Interfaces**

**3.1 Front End Details**

**3.2 Technical Requirements**

**3.3 Functional validations**

**3.4 Classes / Objects**

**3.5 Non-Functional Requirements**

**3.6 Inverse Requirements**

**3.7 Design Constraints**

**3.8 Logical Database Requirements**

**3.9 Other Requirements**

**4. Analysis Models**

**5. Change Management Process**

**1. Introduction**

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

This release will have limited features. Over a period of time, 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 ABC Banking website to

be developed for ABC Tech. Pvt. Ltd. This document will be used by all stakeholders’

including developers and testers.

**1.2 Scope**

The scope of this project is limited to the testing of the features described in the succeeding sections of this document.

* Non-functional testing like stress, performance is beyond scope of this project.
* Automation testing is beyond scope.
* Functional testing & external interfaces are in scope and need to be tested

**No QA support for mobile application developed. Only web service will**

**be tested.**

* The banking site will be only compatible with Chrome version 27 and above

**1.3 Definitions, Acronyms, and Abbreviations**

|  |  |
| --- | --- |
| **Abbreviation** | **Word** |
| M | Manager |
| C | Customer |

**1.4 References**

**Nil**

**2. Specific Requirements**

The ABC Bank will have 2 roles

1. Manager

2. Customer

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

**Balance Enquiry**

Manager

A manager can view balance of all the customers who come under his supervision

Customer

A customer can have multiple bank accounts. He can view balance of his accounts only

**Fund Transfer**

Manager

A manager can transfer funds from any source bank account to destination account

Customer

A customer can have transfer funds from his “own” account to any destination account.

**Mini Statement**

A Mini statement will show last 5 transactions of an account

Manager

A manager can see mini-statement of any account

Customer

A Mini statement will show last 5 transactions of an account

A customer can see mini-statement of only his “own” accounts

**Customized Statement**

A customized statement allows you to filter and display transactions in an account based on date, transaction value

Manager

A manager can see Customized -statement of any account

Customer

A customer can see Customized- statement of only his “own” accounts

**Change Password**

Manager

A manager can change password of only his account. He cannot change passwords of his customers

Customer

A customer can change password of only his account.

**New Customer**

Manager

A manager can add a new customer.

A manager can edit details like address, email, telephone of a customer.

**New Account**

Currently system provides 2 types of accounts

• Saving

• Current

A customer can have multiple saving accounts (one in his name, other in a joint name etc.)

He can have multiple current accounts for different companies he owns. Or he can have a multiple current and saving accounts.

Manager

A manager can add a new account for an existing customer.

**Edit Account**

Manager

A manager can add a edit account details for an existing account

**Delete Account**

Manager

A manager can add a delete an account for a customer.

**Delete Customer**

Manager

A customer can be deleted only if he/she has no active current or saving accounts

A manager can delete a customer.

**Deposit**

Manager

A manager can deposit money into any account. Usually done when cash is deposited at a bank branch

**Withdrawal**

Manager

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**

The bank will provide a mobile app wherein a customer can

1. See mini statement for his account.

2. See balance enquiry for his account.

Two web service calls are created so the mobile app can connect to net banking database and

sink data. Details as below.

**Mini Statement**

Get last 5 transaction details from server

**Output Format**

JSON

**API call category**

User

**API Request**

<http://demo.ABC.com/V4/sinkministatement.php?CUSTOMER_ID=68195&PASSWORD=1234!&Account_No=1>

|  |  |  |
| --- | --- | --- |
| Input Parameter | Type | Description |
| CustomerId | Mandatory | User’s Customer Id |
| Password | Mandatory | User’s Password |
| AccountNumber | Mandatory | Account Number for which statements are required |

Response

{

"result":

{

"Statements":[

{

"Transaction ID":123,

"Amount":"10000",

"Transaction Type":"W",

"ACCOUNT\_NO":"123",

"Date of Transaction":"2013-10-01",

"Description":"Self"

},

{

"Transaction ID":142,

"Amount":"10000",

"Transaction Type":"d",

"ACCOUNT\_NO":"123",

"Date of Transaction":"2013-10-09",

"Description":"Self"

},

{

"Transaction ID":1111,

"Amount":"700",

"Transaction Type":"d",

"ACCOUNT\_NO":"123",

"Date of Transaction":"2013-15-09",

"Description":"Self"

},

{

"Transaction ID":148,

"Amount":"7000",

"Transaction Type":"d",

"ACCOUNT\_NO":"123",

"Date of Transaction":"2013-17-09",

"Description":"Self"

},

{

"Transaction ID":158,

"Amount":"5500",

"Transaction Type":"d",

"ACCOUNT\_NO":"123",

"Date of Transaction":"2013-18-09",

"Description":"Self"

}

]

},

"message":

{

"ErrorCode":0,

"ErrorMsg":"error message"

}

}

**Balance Enquiry**

Get Balance from User Account

**Output Format**

JSON

**API call category**

User

**API Request**

<http://demo.ABC.com/V4/sinkbalanceenquiry.php?CUSTOMER_ID=68195&PASSWORD=1234!&Account_No=>

|  |  |  |
| --- | --- | --- |
| Input Parameter | Type | Description |
| CustomerId | Mandatory | User’s Customer Id |
| Password | Mandatory | User’s Password |
| AccountNumber | Optional | f user enters Account\_No then display balance for  account associate with Account\_No  If user not enters Account\_No then display balance  for all account associated with it. |

Response

{

"result":

{

"Balance":[

{

"ACCOUNT\_NO":123,

"ACCOUNT\_TYPE":"Saving",

"BALANCE":"10000"

},

{

"ACCOUNT\_NO":256,

"ACCOUNT\_TYPE":"Current",

"BALANCE":"50000"

},

{

"ACCOUNT\_NO":298,

"ACCOUNT\_TYPE":"saving",

"BALANCE":"20"

}

]

},

"message":

{

"ErrorCode":0,

"ErrorMsg":"error message"

}

}

**Error Code Table**

|  |  |
| --- | --- |
| Error Code# | Error Code Massage |
| 0 | Success |
| 1 | No Data |
| 2 | Connection |
| 3 | Login Credentials Incorrect |

**2.1.4 Communications Interfaces**

None

**3.1 Front End Details**

This section describes the Front end of ABC 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 (Drop down for Customer)

• Submit

• Reset

**Mini Statement**

• Account No

• Submit

• Reset

**Customized Statement**

• Account No

• From Date

• To Date

• Minimum Transaction Value

• Number of Transaction

• Submit

• Reset

**New Customer**

• Customer Name

• Gender

• Date of Birth

• Address

• City

• State

• PIN

• Mobile 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

**Fund Transfer**

• Payers Account Number

• Payees Account Number

• Amount

• Description

• Submit

• Reset

**Change Password**

• Old Password

• New Password

• Confirm Password

• Submit

• Reset

**Delete Customer**

• Customer Id

• Submit

• Reset

**Edit Account**

• Account Number

• Submit

• Reset

**Form after submitting Edit Account**

• Customer Id (Disabled)

• Account Type (Drop Down - Saving or Current)

• Balance (Disabled)

• Submit

• Reset

Delete Account

• Account Number

• Submit

• Reset

**Edit Customer**

• Customer Id

• Submit

• Reset

**Form after submitting Edit Customer**

• Customer Name (Disabled)

• Gender (Disabled)

• Date of Birth (Disabled)

• Address

• City

• State

• PIN

• Mobile 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 cannot 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 cannot 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 cannot have space

T23 Mobile Number – Mobile no must not be blank

T24 Mobile Number – Special character are not allowed

T25 Mobile Number – Character are not allowed

T26 Mobile Number - First character cannot have space

T27 Email: Email ID must not be blank

T28 Email: Email ID is not valid

T29 Email: First character cannot 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 Minimum Transaction Value – Special character are not allowed

T37 Minimum Transaction Value – Amount Lower Limit is required

T38 Minimum Transaction Value – Characters are not allowed

T39 Number of Transaction – Special character are not allowed

T40 Number of Transaction - Minimum Transaction Value 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 cannot have space

**Edit Customer**

T61 Address - Address Field must not be blank

T62 Address - First character cannot 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 cannot 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 Mobile Number – Mobile no must not be blank

T76 Mobile Number – Special character are not allowed

T77 Mobile Number – Character are not allowed

T78 Mobile 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 validation**s

**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

“Account ### does not exist!!!”

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 associated with manager, System displays an error

Customer

F9 If the destination account number is not valid, system displays an error “Account ###

does not exist!!!”

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 associated 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. On

success, Account details must be shown.

**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. On

success account detail must be shown.

**New Customer**

Manager

F33 If same Email Id exists in the system, system shows an error. On success, user

registration details must be shown.

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. On

success, user registration details must be shown.

**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 not exists in system, System displays an error.

F45 If account 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**

**3.5 Non-Functional Requirements**

Nil

**3.6 Inverse Requirements**

Nil

**3.7 Design Constraints**

Many of the ABC 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 Other Requirements**

Nil

**4. Analysis Models**

Nil

**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 John Smith

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