# Guru99 Banking Project

# Software Requirements Specification

# 2.0

# 19/11/2013

**Prepared for**
Guru99.com

# Revision History

| Date | Description | Author | Comments |
|------|-------------|--------|----------|
| 25/10/2013 | Version 1 | Sam Patrick | Initial Draft |
| 30/10/2013 | Version 1.1 | Sam Patrick | Added section 5.Change management process |
| 5/11/2013 | Version 1.2 | Sam Patrick | Added section 3.7 Design constraints |
| 15/11/2013 | Version 1.3 | Sam Patrick | Typo;s Fixed |
| 18/11/2013 | Version 2.0 | Sam Patrick | ● Customized statement Field name "Amount Lower Limit" is changed to "Minimum Transaction Value"<br>● Change T39 ,T40, T41<br>● In Edit Account module, Fields Customer Id and Balance is disabled. Changes made in section 3.1<br>● In "Form after submitting Edit Customer" Fields Customer Name, Gender ,Date of Birth cannot be changed. |

# Document Approval

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

| Printed Name | Title | Date |
|--------------|-------|------|
| Nick Price | Lead Software Engg. | 19/11/2013 |
| Sam Patrick | Lead QA Engineer | 18/11/2013 |
| Krishna Rungta | Project Sponsor | 19/11/2013 |

# 1. Introduction

The Guru99 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 Guru99 Banking website to be developed for Guru99 Tech. Pvt. Ltd. This document will be used by all stakeholders inculding 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*
*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 Guru99 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 | **Customer:** A customer can have multiple bank accounts. He can view balance of his accounts only <br> **Manager:** A manager can view balance of all the customers who come under his supervision |
| Fund Transfer | Manager Customer | **Customer:** A customer can have transfer funds from his "own" account to any destination account. <br> **Manager:** 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 <br> **Customer:** A customer can see mini-statement of only his "own" accounts <br> **Manager:** 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 <br> **Customer:** A customer can see Customized-statement of only his "own" accounts <br> **Manager:** A manager can see Customized -statement of any account |
| Change Password | Manager | **Customer:** A customer can change password of only |

| | Customer | his account.<br>**Manager:** A manager can change password of only his account. He cannot change passwords of his customers |
|---|---|---|
| New Customer | Manager | **Manager:** A manager can add a new customer. |
| Edit Customer | Manager | **Manager:** A manager can edit details like address, email , telephone of a customer. |
| New Account | Manager | Currently system provides 2 types of accounts<br>● Saving<br>● Current<br>A customer can have multiple saving accounts (one in his name , other in a joint name etc).<br>He can have multiple current accounts for different companies he owns.<br>Or he can have a multiple current and saving accounts.<br>**Manager:** A manager can add a new account for an existing customer. |
| Edit Account | Manager | **Manager:** A manager can add a edit account details for an existing account |
| Delete Account | Manager | **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<br>**Manager:** A manager can delete a customer. |
| Deposit | Manager | **Manager:** A manager can deposit money into any account. Usually done when cash is deposited at a bank branch. |
| Withdrawal | Manager | **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

None

### 2.1.4 Communications Interfaces

None

# 3.1 Front End Details

This section describes the Front end of Guru99 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
- Minimum Transaction Value
- Number Of Transaction
- Submit
- Reset

**New Customer**
- Customer Name
- Gender
- Date of Birth
- Address
- City
- State
- PIN
- Mobile Number
- Email
- 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 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** 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 can not have space

**T27**  Email : Email must not be blank

**T28**  Email : Email  is not valid – Email must be in the valid format "amit@gmail.com"

**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**  Minimum Transaction Value – Special character are not allowed

**T37**  Minimum Transaction Value – Minimum Transaction Value is required

**T38**  Minimum Transaction Value – 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**  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 validations

**Balance Enquiry**

<u>Manager</u>
**F1** Manager can view balance of accounts associate with him
**F2** Account number entered should exist in database


<u>Customer</u>
**F3** Customer can view balance of only his accounts
**F4** Account number entered should exist in database



**Fund Transfer**
<u>Manager</u>
**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 associated with manager, System displays an
error


<u>Customer</u>
**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**
<u>Manager</u>
**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.


<u>Customer</u>
**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 <mark>error</mark>.

**Deposit**

Manager

**F19** If destination account number is invalid, system displays an <mark>error</mark>

**F20** If destination account number does not associate with manager, System displays an <mark>error.</mark>

Customer

**F21** If destination account number is invalid, system displays an <mark>error</mark>

**F22** If destination account number does not associate with customer, System displays an <mark>error.</mark>

**Delete Customer**

Manager

**F23** If Customer Id is invalid, system displays an <mark>error.</mark>

**F24** If account associate with Customer Id, System displays an <mark>error</mark>.

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

**Delete Account**

Manager

**F26** If Account Number is invalid, system displays an <mark>error</mark>

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

**Edit Account**

Manager

**F28** If Account Number is invalid, system displays an <mark>error</mark>.

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

**New Account**

Manager

**F30** If Customer ID is invalid, system displays an <mark>error</mark>.

**F31** If initial deposit is less than 500, System displays an <mark>error</mark>.

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

**New Customer**

Manager

**F33** If same Email Id exist in the system, system shows an <mark>error</mark>.

**Edit Customer**

<u>Manager</u>

**F34** If same Email Id exist in the system, system shows an <mark>error</mark>.

**F35** If Customer Id is invalid, System displays an <mark>error</mark>.

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


<mark>**Change Password**</mark>

<u>Manager</u>

**F37** If Old Password is invalid, System shows an <mark>error</mark>.


<u>Customer</u>

**F38** If Old Password is invalid, System displays an <mark>error</mark>


**Customized Statement**

<u>Manager</u>

**F39** If account no is invalid, System displays an <mark>error</mark>

**F40** If From Date is greater than To Date, System dispalys an <mark>error</mark>.


<u>Customer</u>

**F41** If account no is invalid, System displays an <mark>error</mark>

**F42** If From Date is greater than To Date, System displays an <mark>error</mark>.


**Mini Statement**

<u>Manager</u>

**F43** If account no is invalid, System displays an <mark>error</mark>

**F44** If transaction not exist in system, System displays an <mark>error</mark>.

**F45** If account not associate with manager itself, System displays an <mark>error</mark>.

<u>Customer</u>

**F46** If account no is invalid, System displays an <mark>error</mark>.

**F47** If account associate with customer itself, System displays an <mark>error</mark>.


**Balance Enquiry**

<u>Manager</u>

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

<u>Customer</u>

**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 Guru99 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 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

# A. Appendices

*Nil*