Internet Banking System

Software Requirements Specification (SRS)

Version 2.7

7/5/2023

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**Document Approval**

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

|  |  |  |
| --- | --- | --- |
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| Hana | Project manager | Approved |

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## 

## 1. Introduction

This Web Portal will serve as an interface for all the banking services where the client can easily access his account, perform inter account transactions and to inquire about the previous transactions.

### 1.1 Definitions, Acronyms, and Abbreviations

|  |  |
| --- | --- |
| **Abbreviation** | **Meaning** |
| No | Number |
| DB | Database |

## 2. Specific Requirements

The Internet Banking System will have 2 roles

1. Admin
2. Client

The internet banking system include this feature

The client features:

1. Register
2. Perform transactions
3. Login
4. View Account
5. Add New Account

The admin features:

1. Login
2. Close Account
3. View all accounts

### 2.1 Register

#### **2.1.1 Description and Priority**

The client should register to make a new account in application.

The priority is high (Assumption).

#### **2.1.2 Stimulus/Response Sequences**

**SRS\_Register\_001**

To make register process, the client should enter these required data:

* First Name (it should accept letters only with length not less than 2, not greater than 15),
* First Name does not accept special characters
* First Name does not start with space.
* Last Name (it should accept letters only with length not less than 2, not greater than 15,
* Last Name does not accept special characters
* Last Name does not start with space
* Email (it should match the email format like example@example.com)
* email does not exist in database
* Password (it must contain at least 8 characters)
* Password contains at least 1 letter
* Password contains at least 1 number
* Password contains at least 1 special character
* Confirm password (it must match the password)
* After filling all the required data above the user must click on Register Button

**SRS\_Register\_002**

If the entered user data is valid according to **SRS\_Register\_001,**

Thesystem will do the following

* The password will be hashed.
* Save the client data in the database
* go to the View Account page
* shows alert message with automatically generated unique client id.

**SRS\_Register\_003**

If the client did not enter the data as required in section **SRS\_Register\_001**

the system showed an alert message “Invalid Data”.

### 2.2 Login

#### **2.2.1 Description and Priority**

**Client:** A client can login by his email and password.

**Admin:** an admin can login by his email and password.

#### **2.2.2 Stimulus/Response Sequences**

**SRS\_Login\_001**

**Client or Admin** should enter these required data to make a login process:

* Email (It must exist in the DB)
* Password (it must conform to the password associated for the above email in the DB).
* Click on the login button

**SRS\_Login\_002**

If the entered client or admin data is valid according to **SRS\_Login\_001,**

Thesystem will go to the View Account page.

**SRS\_Login\_003**

If the client or the admin entered an email or a password which do not exist in the database, then show an alert message “invalid data”.

**SRS\_Login\_004**

If the client or the admin entered an email which does not contain @, then display a message saying (“please include an “@” in the email address “examplegmail.com” is missing an “@””).

**SRS\_Login\_005**

If the client or the admin entered an email which does not match the following regular expression. “.+@.+” (“please enter a part following “@”.” example @” is incomplete).

### 2.3 View Account

#### **2.3.1 Description and Priority**

|  |
| --- |
| **Client:** A Client can view his account only after login.  **Admin:** An Admin can view all the clients and their accounts after login  The priority is high (Assumption). **2.3.2 Stimulus/Response Sequences** **SRS\_ View Account \_001**  **An admin**  Views content:   * view client’s id * client’s account no * client’s Name * client’s email * close account * logout   **SRS\_ View Account \_002**  **The Client** Views page content:   * Name. * Date (current date). * Account number. * Add New Account Button. * Current Balance * Previous Transactions. * Transfer money Form * Logout Button   **SRS\_ View Account \_004** If the client does not have an account, then “No Account” would be displayed after logging in. **SRS\_ View Account \_006**  In the admin page, if the client does not have an account, “No Account” will be displayed in the account no. field. |

#### **2.3.3.1 Description and Priority (Perform Transaction)**

**Client:** a client can transfer money to any account he knows account no.

The priority is high (Assumption).

#### **2.3.3.2 Stimulus/Response Sequences**

**SRS\_PerformTransaction\_001**

While the client is inside the view account page, he/she can perform a transaction.

The client must first write an account number where he wants to transfer money to.

If the client does not enter an account and try to transfer money, the client show an alert with massage “cannot transfer”.

**SRS\_PerformTransaction\_002**

The client should enter these required data to perform transactions between different accounts:

* Account number where the money would be transferred (the account number exits in the database).
* Amount of money.
  + it should accept only numbers.
  + It should be less than or equal the current balance.

Click in Transfer Button

**SRS\_PerformTransaction\_003**

If the client enters valid data as per **SRS\_PerformTransaction\_002**, an alert is displayed massage “successfully transferred”.

**SRS\_PerformTransaction\_004**

If the client did not enter the account number or money amount or both fields (account number, money amount) were empty, the system shows a message “please fill out this field”

**SRS\_PerformTransaction\_005**

If the account number does not exist, an alert would be displayed (“this account number is not found”).

**SRS\_PerformTransaction\_006**

If the amount of money is greater than the current balance of this account, an alert would be displayed (“you do not have enough money for this transaction”).

**SRS\_PerformTransaction\_007**

If the client entered decimal numbers in either the account number field or the amount of money of field, an error will be displayed “please enter a valid value, the two nearest values are ‘’ and ‘’ ”.

**SRS\_PerformTransaction\_008**

If the client tried to enter any character that is not letter e or a number in either account number or amount of money fields, it will not be written, and if the client wrote the letter ‘e’ in either account number or amount of money fields, an error will be displayed “please enter a number”.

**SRS\_PerformTransaction\_009**

If the client entered a valid account number, and a money amount of zero, an alert would be displayed “invalid input, please enter only numbers excluding - or zero”.

**SRS\_PerformTransaction\_010**

If the client entered a valid account number, and a negative money amount, an alert would be displayed “invalid input, please enter only numbers excluding - or zero”.

**SRS\_PerformTransaction\_011**

If the client entered his own account number, not the recipient account number, an alert would be displayed “You entered your own account number, please enter the recipient account number”

#### **2.3.4.1 Description and Priority (Add New Account)**

**Client:** A Client can add only one account, after the client clicks on Add New Account button the system will provide an alert message saying " your account Number is. ", then the account number will be displayed in the page “Account Number: num”

The priority is high (Assumption).

#### **2.3.4.2 Stimulus/Response Sequences**

**SRS\_Add New Account \_001**

If the client does not have an account, then he can add an account by pressing on Add New Account button, the system will provide an alert message saying “your account Number is ...”.

**SRS\_Add New Account \_002**

If the client already has an account, then he can not create another one, so when he clicks on Add New Account button, an alert will be displayed “You already have an account, you cannot create another one.”.

#### **2.3.5.1 Description and Priority (Close Account)**

**Admin:** can close client’s accounts.

The priority is high (Assumption).

#### **2.3.5.2 Stimulus/Response Sequences**

**SRS\_Close Account \_001**

An admin to close account of the client should follow these steps:

* Write The Account No of client (the account should be stored in the database).
* Click in button Close Account.

**SRS\_Close Account \_002**

If the admin not enter the Account No and click in close Account, an error message will appear to ask the admin to enter the Account No (“please fill out this field”).

**SRS\_Close Account \_003**

If an admin enters Account No of the client which does not exist in DB, the system shows an alert message “account does not exist”.

**SRS\_Close Account \_004**

If an admin enters an invalid Account No of the client (Negative number), the system shows an alert message “invalid input”.

**SRS\_Close Account \_005**

If an admin tries to delete an account with balance greater than zero, then show an alert message “Cannot delete the account as the current balance is greater than zero”.

**SRS\_ Close Account \_006**

If an admin enters correct Account with balance zero and click in close Account show an alert message “deleted successfully”.

**SRS\_ Close Account \_007**

If the admin entered decimal number in account number field, an error will be displayed “please enter a valid value, the two nearest values are ‘’ and ‘’ ”.

**SRS\_ Close Account \_008**

If the admin tried to enter any character that is not letter e or a number, it will not be written, and if the admin wrote the letter e, an error will be displayed “please enter a number”.

#### **2.3.6.1 Description and Priority (Logout)**

The client or an admin will be logged out of his account

#### **2.3.6.2 Stimulus/Response Sequences**

**SRS\_Logout\_001**

The user will be logged out if the log out button is clicked.