**Software Requirements Specification**

for

Online Banking System - BankOn

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**Contents**

[Revision History](#_bookmark0) 1

1. [Introduction](#_bookmark1) 2
   1. [Purpose](#_bookmark2) 2
   2. [Intended Audience](#_bookmark3) 2
   3. [Intended Use](#_bookmark4) 2
   4. [Product Scope](#_bookmark5) 3
   5. [Risk Definition](#_bookmark6) 3
2. [Overall Description](#_bookmark7) 4
   1. [User Classes and Characteristics](#_bookmark8) 4
   2. [User Needs](#_bookmark9) 4
   3. [Operating Environment](#_bookmark10) 5
   4. [Constraints](#_bookmark11) 5
   5. [Assumptions](#_bookmark12) 5
3. [Requirements](#_bookmark13) 6
   1. [Functional Requirements](#_bookmark14) 6
   2. [Non-Functional Requirements](#_bookmark15) 8

[Appendices](#_bookmark16) 9

[A Glossary](#_bookmark17) 10

# Revision History

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**Chapter 1**

**Introduction**

In today's technologically advanced world, banking now involves more than just going to a branch. It involves controlling your finances with a few taps and clicks. Online banking systems are the focus of this paper, including their definitions, importance, and effects on daily life. We will clarify online banking in simple terms. We will look at how it functions, why people use it, and what ensures its security. We will also discuss the purpose, functionalities, and non-functionalities that come with it.  
In essence, the purpose of an online banking system is to empower individuals and businesses with efficient, secure, and user-friendly tools to manage their financial matters in a digital age.

## Purpose

***Convenience and Accessibility:*** You can access your accounts, check balances, and perform transactions anytime, anywhere, if you have an internet connection.

***Account Management:*** You can view your account balances, monitor recent transactions, and review your transaction history all from the comfort of your computer or mobile device.

***Online Payment:*** You can pay your bills timely and without any hassle. Account Alerts and Notifications: You can receive alerts for account balances, large transactions, or when bills are due.

***Eco-Friendly and Paperless Approach:*** You can receive electronic statements, pay bills online, and conduct transactions digitally, minimizing the use of paper and resources.

## Intended Audience

* + - Developers
    - Project Testers
    - Project managers
    - Marketing Department
    - Leadership teams

## Intended Use

##### Developers:

Developers can use this SRS to easily understand what’s the project about, which part they should focus more on, which part to improve, and find if there is any scope to add new features or functions for any upgrade.

##### Project Testers:

Testers can use this SRS to test the software as per requirements. This will make the testing more organized as from SRS testers can easily get an idea of where to look and what error or bug they should be looking for.

##### Project Manager:

The project manager can use this SRS to understand the client's expectations. This will help him in project management and trace requirements from initial discussions to the final implementation. With a clear understanding of the project's functional and non-functional requirements, project managers can allocate resources and manage risks at early levels.

* + - **Marketing Department:**

The marketing department can use this SRS to get an idea about what they are going to promote and what are the features of this project and how these features will help the clients or users.

* **Leadership Team:**

The leadership team can use this SRS as a detailed blueprint for the entire project and it will provide valuable insights that align with the strategic and business-oriented perspectives of the team.

## Product Scope

This is a website through which users can have a smooth banking system online.

**Benefits of this web application:**

1. It is convenient for users to make payments and bills without physically having to go to a bank and stand in line.

2. User can easily check the transaction history.

3. User can manage their account.

4. Users can make payments at any time from the comfort of their homes.

**The objective of our web application is to:**

1. Give users an easy banking experience.

2. Give users a hassle-free payment system.

**Goals:**

1. Our goal is to ensure that, no-one would have to waste time in tedious lines in banks.

2. we are providing online service so that users can instantly make transactions

## Risk Definition

1. For unstable network connections, the activities of the user can be disrupted.
2. Too many server requests are not controllable for the server.
3. Too many users at the same time can cause server traffic.

**Chapter 2**

**Overall Description**

We are going to build a web-based Online Banking System that will empower users to manage their financial activities securely and conveniently through internet-connected devices. This system will offer a comprehensive suite of features that include account access, fund transfers, bill payments, transaction history, and financial management tools. Designing with user experience and security in mind, the Online Banking System will enhance the way customers interact with their finances, providing a seamless and efficient banking experience.

## User Classes and Characteristics

This web-based application helps users to perform online banking smoothly. This application is user-friendly so anyone of a certain age can use this application for banking purposes.

* + - user can be a **customer**: An individual or business entity using the online banking system for various transactions and account management.
    - user can be any **Bank Employee/administrator**: Bank staff responsible for managing the system and handling customer inquiries.
    - user can be any **Third-party integration (External Services):** Services integrated with the online banking system, such as payment gateways, crediting score system, and account aggregation services.

## User Needs

1. Account management:

● Users need to be able to create new accounts and also delete them, both savings and checking.

● Users need to manage their account details including personal information.

● Users need the ability to view their account balances, recent transactions, and statements.

1. Payments:

● User need to make bill payments.

1. Loan and investment management:

● Users need the ability to apply for loans, view loan terms, and make loan payments online.

● Users may want to manage their investments and execute investment transactions.

1. Privacy and data protection:

● Users need assurance that their personal and financial information is treated confidentially and they need to understand how their data is used and protected.

## Operating Environment

The operating environment for the Covid-19 help service is listed below.

* + - Operating system: Any kind of OS which supports browsing.
    - Database: SQLite.
    - Platform: JAVA, Eclipse

## Constraints

* + - We have to develop the application in **Java** language.
    - The developed system must work in the client’s operating environment, which is Windows.
    - We have to finish the project within 2 months.

## Assumptions

* + - Users can read and write English.
    - Users have devices that support internet service.
    - Users have an internet connection.
    - Our software will not violate any internet rules.
    - Users are familiar with web browsing and can interact with websites.

**Chapter 3**

**Requirements**

## Functional Requirements

* + 1. **As a** user

**I want to** be able to open a new bank account

**so that,** I can use the features of online banking.

##### Confirmation

##### Success - Valid account created and refer to account main page

##### a. Display the message “new bank account created successfully”

##### b. The account details are stored in the database along with the user’s personal information

##### 2. Failure - display message.

##### a. “Incomplete information, please fill in all the required fields”

##### b. “Service currently unavailable, please try again later”

* + 1. **As a** user

**I want to** be able to view my account information

**so that,** I know the updated status of my accounts and plan accordingly.

* **Confirmation:**

**1.** **Success**- refer to the account information page

**2.** **Failure** - display message:

**a.** “Account has expired”.

* + 1. **As an** Admin

**I want to** check that a customer using our service is the same person named on the bank account they're paying from

**so that,** human error can be prevented such as somebody inputting their bank account details incorrectly as well as frauds can be detected.

##### Confirmation:

##### Success – Valid user receives an email containing a verification link.

##### a. “Click on the verification link”- confirms the successful creation.

##### Log in using the credentials the user registered with.

1. **Failure – Display message:**

##### a. “ACCOUNT DOESN’T EXIST”

##### b. “Incorrect Email. Please Try Again!”

* + 1. **As a** User

**I want to** get real-time insights into the activity in your checking, savings, and credit accounts as well as fraud or unauthorized use alerts

**so that,** human error can be prevented such as somebody inputting their bank account details incorrectly as well as frauds can be detected.

##### Confirmation:

##### Success – Valid user receives email or SMSs containing Account balance alerts, unusual activity alerts, direct deposit alerts, and profile change alerts.

##### Failure – Update Email or Phone Number.

##### As a User

##### I want to be able to make payments on time

##### so that, none of my bills are due and I do not have to pay extra fees in case the payment failed to go through on time.

##### Confirmation:

##### 1. Success- Payment is done successfully!

##### 2. Failure- Error message showing payment failed to be made.

##### As a User

##### I want to be able to check my payment history

##### so that, I can keep track and record my spending and plan accordingly.

##### Confirmation

##### 1. Success- refer to the account transaction history page.

##### 2. Failure- display message.

##### a. “Service currently unavailable, please try again later”

##### As a user of the online banking platform,

##### I want to have a streamlined and user-friendly process so that, I can apply for a loan, so that I can easily access the financial assistance I need.

##### Confirmation

##### 1. Success -Valid applicant receives the requested funds and enters into a structured repayment arrangement with the bank.

##### 2. Failure- display message.

##### a. “Application declined due to insufficient income” b. “Incomplete information. PLEASE TRY AGAIN!” c. “There are some technical issues. Please try again later

##### As a user of the online banking platform,

##### I want to have a straightforward and efficient process for closing my bank account

##### so that, I can easily manage my finances and transition to a different banking option when needed.

##### Confirmation

##### Success -Valid user receives an email/SMS confirming the successful closure of the account.

##### a. “Closed account no longer appears in the transaction history.” b. “Performance of any transactions can no longer be done using the closed account.” c. “If there is any alternative account then it can now be accessed.”

##### 2. Failure- display message.

##### a. “Closure request could not be processed” b. “Failure of closing the account due to technical glitch”

##### As a user

##### I want to be able to open a new bank account

##### so that I can use the features of online banking.

##### Confirmation

##### Success - valid account created and refer to account main page.

##### a. Display the message “new bank account created successfully” b. The account details are stored in the database along with the user’s personal information

##### 2. Failure- display message.

##### a. “Incomplete information, please fill in all the required fields”

##### b. “Service currently unavailable, please try again later”

##### As a user

##### I want to be able to view my account information

##### so that I know the updated status of my accounts and plan accordingly.

##### Confirmation

##### Success - refer to the account information page

##### Failure - display message:

##### a. “Account has expired”

##### b. “Account information could not be retrieved, please try again later”

## Non-Functional Requirements

##### Performance Requirements:

* The system must not accumulate high numbers of users without any fault.
* Response to any kind of interaction must take no longer than 3 seconds to appear on the screen.
* The system’s UI design should be User-friendly.

##### Security Requirements:

* The system will use a secure database.
* The Database should be reliable.
* Normal users can just read or write information but they cannot edit or modify existing information.

##### Error Handling:

* OS must handle expected or non-expected errors in ways that prevent loss of information and a long downtime period.

##### Safety Requirements:

* System use must not cause any harm to human users.
* The system must abide by the laws.

# Appendices

10

11

**Appendix A**

**Glossary**

**SRS:** A software requirements specification (SRS) is a description of a software system to be developed. The software requirements specification lays out functional and non-functional requirements, and it may include a set of use cases that describe user interactions that the software must provide to the user for perfect interaction.