NatWest Group

Software Requirements Specification for Home Loan Processing System

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1. Introduction

Problem Statement

Owning a home is everyone's dream and a bank can surely help in fulfilling that dream. This is the Tech Era where if you want to keep your place around the customer, you should be tech enabled. NatWest bank also understands this and therefore builds a purpose "*We champion potential, helping people, families and businesses to thrive*". We have created four key strategies to achieve this purpose, one of which is powered by innovation and partnerships.

A study was conducted to understand the pain points of the customer for Mortgage Lending, few of the issues have been enumerated below:

- Disconnected processes.
- Too much time passes by between interactions with customers.
- Documents are often hard copy and must be tended to in person.

We believe technology can play a great role in solving these pain points and hence, a requirement arose for the Home Loan Processing System.

Purpose

The Home Loan Processing System is designed to automate the process of loan application, credit check, document verification, and loan disbursal for customers applying for a home loan.

The system will allow customers to submit loan applications online, track the status of their applications, and receive loan approval or denial decisions in a timely manner.
The system will also allow loan officers to review and process loan applications, perform credit checks, and make approval or denial decisions.

Software Requirement Specification(SRS) Document

The SRS document aims to gather and analyze and give an in-depth insight of the complete **Home Loan Processing System software** for NatWest Bank by defining the problem statement in detail. Further,, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features. The detailed requirements of the **NatWest Bank are** provided in this document.

This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in software delivery lifecycle (SDLC) processes.

Scope

Primarily, the scope pertains to the product which provides all required features of an application which provides all home loans to the customer. The loan will be provided to the customer based on the mortgage of the home as collateral security. The aim of the application is to get the

information from the customer digitally which will help in processing the loan without much interaction and thus, saving time, money and resources.

The system will be accessible by customers through a web-based interface. Some of its features will be:

- Online loan application submission
- Credit check and verification
- Loan approval or denial decision
- Loan tracking and status updates
- Integration with credit bureaus

Users of the system

Any customer of the bank or non-customer who is looking to avail housing loan to purchase their home.

2. Functional Requirements

The system will allow customers to submit loan applications, upload necessary documents, and track the status of their application. It will also allow loan officers to review and verify the information provided by customers and approve or reject loan applications. Administrators will have access to view and manage all loan applications, and also have the ability to generate reports.

- In the Home page of the web application we will display the Product details, Login/Register, EMI calculator and an In principle approval functionality.
- In Registration functionality. the system shall display the login page after successful registration. The user should be able to login.
- After successful login, the user should be continuing to complete the application for the loan. All the required details must be taken from the user for assessment of the eligibility of the loan amount based on the credit worthiness of the user.
- Once all the required details have been submitted by the user, the system will conduct credit checks and verify the information provided by customers. Post which the application should be forwarded to the concerned department.
- Concerned department will scrutinize the documents and user information post which they will request for any further documentation requirement or post the status of the loan.
- Once the application is approved, a notification should be forwarded to the customer for the approval of the application.
- The bank or customer will then connect and complete further formalities.
- The system will store customer information and loan application data in a secure database.

3. Non- Functional Requirements

- The App should be responsive to display consistently across multiple device screens.
- The system should use HTTPS protocol for all data transmission.
- The system should use encryption for sensitive data such as passwords.
- The user interface should be simple and easy to use.
- The system should provide clear and concise error messages.

4. Tools and Technologies used

- Frontend: React JS
- Back end: Spring Boot
- Database: MySql

5. User Interface

- The customer interface should have a modern and professional design.
- The customer interface should be responsive and optimized for mobile devices.
- The customer interface should provide clear and concise instructions for the loan application process..
- The customer interface should provide a loan tracking feature.

6. Performance

- The product shall be based on the web and has to be run from a web server.
- The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.
- The performance shall depend upon hardware components of the client/customer.

7. Data Management

- The system will store customer information and loan application data in a secure database.
- The system will validate all data inputs to ensure accuracy and completeness.
- The customer's web browser shall never display a customer's password. It shall always be echoed with special characters representing typed characters.
- The system will provide backup and recovery mechanisms to protect data from loss.

8. System Architecture

- The system will be developed using a combination of open-source and proprietary technologies.
- The system will be hosted on a cloud-based infrastructure for scalability and accessibility.

- The system will be built on a modular architecture to allow for easy maintenance and upgrades.
- The system's back-end servers shall only be accessible to authenticated administrators.

9. Security

- The system will implement secure socket layer (SSL) encryption to protect personal and financial information of customers.
- The system will have robust access control mechanisms in place to protect sensitive data and system functionality.
- The system shall automatically log out all customers after a period of inactivity.
- The system shall not leave any cookies on the customer's computer containing any of the user's confidential information.
- The system will comply with relevant industry and government regulations regarding data security and privacy.

10. Testing

- The system will undergo thorough testing before deployment, including unit testing, integration testing, and acceptance testing.
- The system will be tested for performance, security, and usability.
- The system will be tested for compliance with relevant regulations.

11. Maintenance

- The system will be continuously monitored for performance and security.
- The system will be maintained and upgraded regularly to ensure optimal functionality.
- The system will be backed up regularly to protect data from loss.

12. Appendices

- This section will comprise of:
    - Data models and their description.
    - API's used and their URLs.
    - Formatting used from Bootstrap or Material UI libraries.

Data Models	**Description**
User Registration	User Title User First Name User Last Name User DOB

	User Email Id User Mobile Number User Password User Confirm Password
Customer Personal information	Customer Id Customer Gender Customer Nationality Customer Father/Spouse Name Customer Flat number Customer Property name Customer Property number Customer Street Customer City Customer Country Customer Postcode
Mortgage	Property Type Property Flat number Property Property name Property Property number Property Street Property City Property Country Property Postcode Property EPC certificate Property Price Property Customer contribution
Income	Customer main income source Customer other income source Customer income before tax
Expenditure	Customer existing loan Customer monthly expenses Customer any other fixed commitment

Diagrams

Diagram for macro level architecture of the application

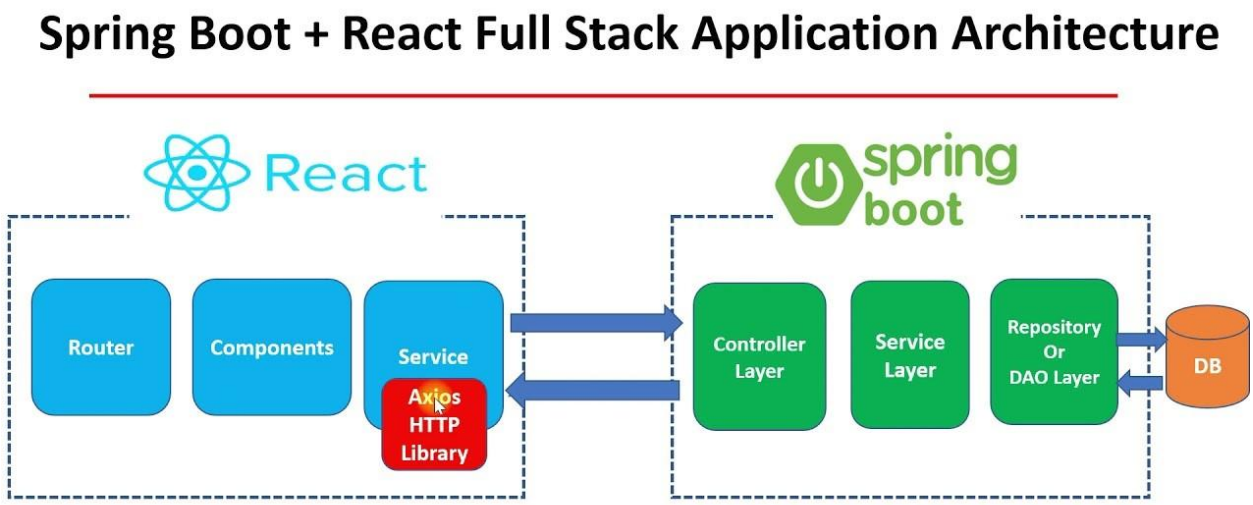

Diagram for process flow at Backend