

System Requirements Specification (SRS)

1. Introduction

1.1 Purpose

This document defines the functional and non-functional requirements for the **Revolving Loan Application (Web-based System)**. The system is intended to automate the application, review, approval, and management of employee revolving loans within an organization.

1.2 Scope

The Revolving Loan Application enables employees to request revolving loans, allows HR officers and management to review and approve or reject requests, and supports administrators in managing users and system data. The system generates loan contracts in PDF format upon approval and notifies relevant users of loan status changes.

1.3 Intended Audience

- Software Developers
- System Architects
- Project Managers
- HR Department Stakeholders
- Business Analysts

1.4 Definitions, Acronyms, and Abbreviations

- **Borrower:** Employee requesting a loan
 - **HR Officer:** HR staff responsible for reviewing loan requests
 - **HR Management:** Senior HR staff with approval authority
 - **Admin:** System administrator
 - **SRS:** System Requirements Specification
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2. Overall Description

2.1 Product Perspective

The system is a web-based application accessible via a browser. It follows a role-based access model and integrates with a backend database for data storage and retrieval.

2.2 Product Functions

- User authentication and role-based access
- Loan request submission by employees

- Loan review, approval, and rejection workflow
- Queue-based loan processing
- Automatic loan amount calculation
- PDF generation of loan contracts
- Notifications to borrowers
- Administrative user and data management

2.3 User Classes and Characteristics

User Type	Description
Borrower	Employee requesting a revolving loan
HR Officer	Reviews loan requests and recommends approval or rejection
HR Management	Final approval or rejection authority
Admin	Manages users, roles, and database seeding

2.4 Operating Environment

- Web browser (Chrome, Firefox, Edge)
- Backend server (Node.js or equivalent)
- Database server (MongoDB or equivalent)

2.5 Constraints

- Revolving loan amount is limited to **six (6) times the employee salary**
- Only authenticated users may access the system
- Approval workflow must follow defined roles

3. Functional Requirements

3.1 Authentication and Authorization

- The system shall provide a login page for all users.
- The system shall authenticate users using email and password.
- The system shall restrict access based on user roles.

3.2 Admin Module

- The system shall allow the Admin to create users with different account types.
- The system shall allow the Admin to seed borrower data into the database.
- Borrower data shall include:
 - Name
 - User ID
 - Salary Amount
 - Email

3.3 Borrower Module

- The system shall allow borrowers to submit loan requests.
- The system shall automatically calculate the maximum loan amount as six times the borrower's salary.
- The system shall assign a queue number to each loan request.
- The system shall display loan status as:
 - Pending
 - Approved
 - Rejected
- Upon approval, the system shall display approved loan details to the borrower.

3.4 HR Officer Module

- The system shall display a queue of loan requests to HR officers.
- The system shall allow HR officers to review loan request details.
- The system shall allow HR officers to approve or reject loan requests.

3.5 HR Management Module

- The system shall allow HR Management to review approved requests from HR officers.
- The system shall allow HR Management to finalize approval or rejection.

3.6 Loan Approval and Contract Generation

- Upon loan approval, the system shall generate a PDF loan contract.
- The PDF shall be accessible from the HR Officer page.
- The system shall notify the borrower of loan approval.

4. Non-Functional Requirements

4.1 Security

- Passwords shall be securely stored using encryption.
- Role-based access control shall be enforced.

4.2 Performance

- The system shall handle concurrent loan requests efficiently.
- Loan status updates shall be reflected in real time or near real time.

4.3 Usability

- The system shall provide a clear and user-friendly interface.
- Navigation shall be intuitive for all user roles.

4.4 Reliability

- The system shall ensure data consistency and integrity.
- The system shall prevent duplicate loan submissions.

4.5 Maintainability

- The system shall be modular to allow future enhancements.
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5. Future Enhancements (Optional)

- Digital signature integration
 - Email and SMS notifications
 - Loan repayment tracking
 - Reporting and analytics dashboard
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6. Assumptions

- Employees already exist in the organization database.
 - Salary data provided during seeding is accurate.
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7. Approval

This document serves as the official requirements baseline for the Revolving Loan Application system and is subject to stakeholder approval.