



Darshan University

A Project Report on

“Loan Management System”

Under the subject

Software Engineering (2101CS503)

B. Tech, Semester – VI

Computer Science & Engineering Department

Submitted By

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Academic Year

(2023-2024)

Internal Guide

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DECLARATION

We hereby declare that the SRS, submitted along with the **Software Engineering (2101CS503)** for entitled “**Loan Management System**” submitted in partial fulfilment for the Semester-5 of **Bachelor Technology (B. Tech)** in **Computer Science and Engineering (CSE)** Department to Darshan University, Rajkot, is a record of the work carried out at **Darshan University, Rajkot** under the supervision of **Prof. Rajkumar Gondaliya** and that no part of any of report has been directly copied from any students’ reports, without providing due reference.

Jay Ramani

Student’s Signature

Date: _____



**Computer Science & Engineering Department
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CERTIFICATE

This is to certify that the SRS on “**Loan Management System**” has been satisfactorily prepared by **Jay Ramani (22010101478)** under my guidance in the fulfillment of the course **Software Engineering (2101CS503)** work during the academic year 2023-2024.

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Thus, in conclusion to the above said, I once again thank the faculties and members of **Darshan University** for their valuable support in completion of the project.

Thanking You

Jay Ramani

ABSTRACT

This project aims to develop a Loan Management System (LMS) to streamline and automate loan processing, management, and record-keeping for financial institutions. The proposed system will address the limitations of manual processes by establishing a centralized digital platform for loan applications, approvals, tracking repayments, and generating reports. The LMS will offer functionalities for both customer and administrator users. Customers can submit loan applications, access loan details, and schedule payments. Administrators will manage user accounts, loan products, interest rates, process applications, track delinquencies, and generate comprehensive reports for informed decision-making. This user-friendly and secure system will enhance operational efficiency, improve customer service, and minimize errors associated with manual loan management.

Develop an LMS to automate loan processes for financial institutions, boosting profitability through efficiency.

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1 Introduction

1.1 Product perspective

This project aims to develop a Loan Management System (LMS) to automate and centralize loan processing, management, and record-keeping for financial institutions. Replacing manual processes with a secure web application, the LMS improves efficiency, reduces errors, and enhances customer service. The system caters to four user roles: Loan Applicants, Loan Officers, Loan Supervisors, and Admin, streamlining the loan lifecycle from application to repayment.

1.2 Product features

1.2.1 User Types

- **Loan Applicant:**
 - Individuals applying for and managing loans.
- **Loan Officer:**
 - Processes loan applications, conducts initial assessments, and makes recommendations.
- **Loan Manager:**
 - Reviews and approves/rejects loan applications based on officer recommendations and established criteria.
- **Admin:**
 - Manages system configuration, user accounts, and security protocols.

1.2.2 Loan Applicant Features

- Secure online loan application submission with document upload.
- Real-time application status tracking.
- Access to loan details, including interest rate, repayment schedule, and remaining balance (once a loan is approved).
- Online payment processing for convenient loan repayments (once a loan is approved).
- Secure communication portal for inquiries and support.

1.2.3 Loan Officer Features

- User management for creating borrower profiles.
- Configurable loan product selection based on borrower eligibility.
- Access to credit bureau reports and other borrower data for initial assessment.
- Recommendation system for loan approval/rejection with supporting documentation.

1.2.4 Loan Manager Features

- Review loan applications submitted by Loan Officers, including borrower information, financial details, and recommendations.
- Authority to approve or reject loan applications based on established criteria.
- Access to detailed decision reports for each loan application.

1.2.5 Admin Features

- System configuration, including setting up loan products, interest rates, and user access controls.
- User management for creating and managing Loan Officer and Loan Supervisor accounts.
- Robust reporting and analytics for overall loan portfolio performance and risk management.
- Secure data storage and access control to ensure borrower privacy and regulatory compliance.

1.3 Functional Requirement

1.3.1 Loan Applicant Requirements

- **Login/Logout:** Applicants can log in and log out of the system.
- **Submit Application:** Electronically submit loan applications with clear instructions.
- **Upload Documents:** Attach required documents (proof of income, ID) for loan application.
- **Track Status:** Monitor application status in real-time for informed decisions.
- **View Loan Details:** Access loan details (interest rate, repayment schedule, remaining balance) upon approval.
- **Make Payments:** Initiate loan repayments online using various payment options (e.g., bank transfer, debit card).
- **Contact Loan Officer:** Securely communicate with Loan Officers for inquiries and support.
- **Update Profile:** Maintain profile accuracy by updating personal information within the system.
- **Explore Products:** View available loan products and eligibility criteria to choose the best fit.
- **Receive Updates:** Get notified regarding application status updates (e.g., approval, rejection, additional information needed).
- **Download Statements:** Download loan statements and repayment history for record-keeping.
- **Request Restructuring:** If needed, request loan restructuring or extension for unforeseen circumstances.
- **Submit Multiple Applications:** Submit multiple loan applications simultaneously (if applicable).
- **Set Up Auto-Pay:** Set up automatic loan repayments for convenience and timely payments.
- **Dispute Information:** Dispute loan information or fees if discrepancies are found.
- **Provide Feedback:** Help improve the system by providing feedback on functionality and user experience.

1.3.2 Loan Officer Requirements

- **Review Applications:** Access borrower profiles and application details for comprehensive review.
- **Select Loan Product:** Choose appropriate loan products based on borrower eligibility and financial situation.
- **Verify Financials:** Access credit bureau reports and other borrower financial data for informed decision-making.
- **Recommend Action:** Utilize a recommendation system to suggest loan approval/rejection with supporting documentation.
- **Collaborate with Supervisor:** Collaborate securely with Loan Supervisors through the system for clarification or guidance.
- **Assign Applications:** Assign loan applications to other Loan Officers for review and workload distribution.
- **Generate Reports:** Generate customized reports on loan applications and borrower data for analysis.
- **Communicate with Borrower:** Initiate communication with borrowers regarding application status or missing information.
- **Update Contact Info:** Update borrowers contact information to ensure accurate communication.
- **Access Loan Terms:** Access pre-defined loan terms and conditions for different loan products.
- **Utilize Workflows:** Utilize automated workflows for efficient processing of loan applications.
- **Assess Creditworthiness:** Conduct basic creditworthiness assessments to gauge borrower risk.
- **Credit Check:** Loan officers can perform credit checks on applicants.
- **Customer Feedback Review:** Loan managers can review feedback provided by applicants.

1.3.3 Loan Manager Requirements

- **Approve Applications:** Review loan applications submitted by Loan Officers.
- **Make Decisions:** Approve or reject loan applications based on established criteria.
- **Access Decision Reports:** Access detailed decision reports for each loan application.
- **Collaborate with Loan Officer:** Securely communicate with Loan Officers for clarification or guidance.
- **Escalate Applications:** Escalate complex loan applications to Admin for review.
- **Analyse Performance:** Access historical loan performance data for trend analysis.
- **View Reports:** View reports on overall loan portfolio performance and risk assessment.
- **Define Workflows:** Define and manage loan approval workflows and escalation procedures.
- **Analyse Officer Performance:** Analyse Loan Officer performance metrics and identify areas for improvement.
- **Control User Accounts:** Manage user accounts and access permissions for Loan Officers.
- **Conduct Audits:** Conduct periodic system audits and ensure compliance with regulations.
- **Generate Supervisor Reports:** Generate customized reports on Loan Supervisor activities and loan performance.
- **Request System Changes:** Initiate system configuration changes with Admin approval.

1.3.4 Admin Requirements

- **Backups & Recovery:** Implement system backup and disaster recovery procedures.
- **Define User Roles:** Define user roles, permissions, and access levels within the system.
- **User Handling:** Admins can create, update, and delete user accounts.
- **Audit Logs:** Admins can access and manage system audit logs.
- **System Maintenance:** Admins can schedule and perform system maintenance tasks.
- **API:** Admins can manage API access and integrations with external systems.
- **Usage Analytics:** Admins can analyse system usage and generate insights for improvement.

1.4 Non-Functional Requirement

1.4.1 Usability:

- The UI should be simple enough for everyone to understand and get the relevant information without any special training. Different languages can be provided based on the requirements.

1.4.2 Accuracy:

- The data stored about the books and the fines calculated should be correct, consistent, and reliable.

1.4.3 Availability:

- The System should be available for the duration when the library operates and must be recovered within an hour or less if it fails. The system should respond to the requests within two seconds or less.

1.4.4 Maintainability:

- The software should be easily maintainable and adding new features and making changes to the software must be as simple as possible. In addition to this, the software must also be portable.

1.4.5 Security Audits:

- Conduct system audits and ensure adherence to security protocols.

2 Design and Implementation Constraints

2.1 Use case diagram

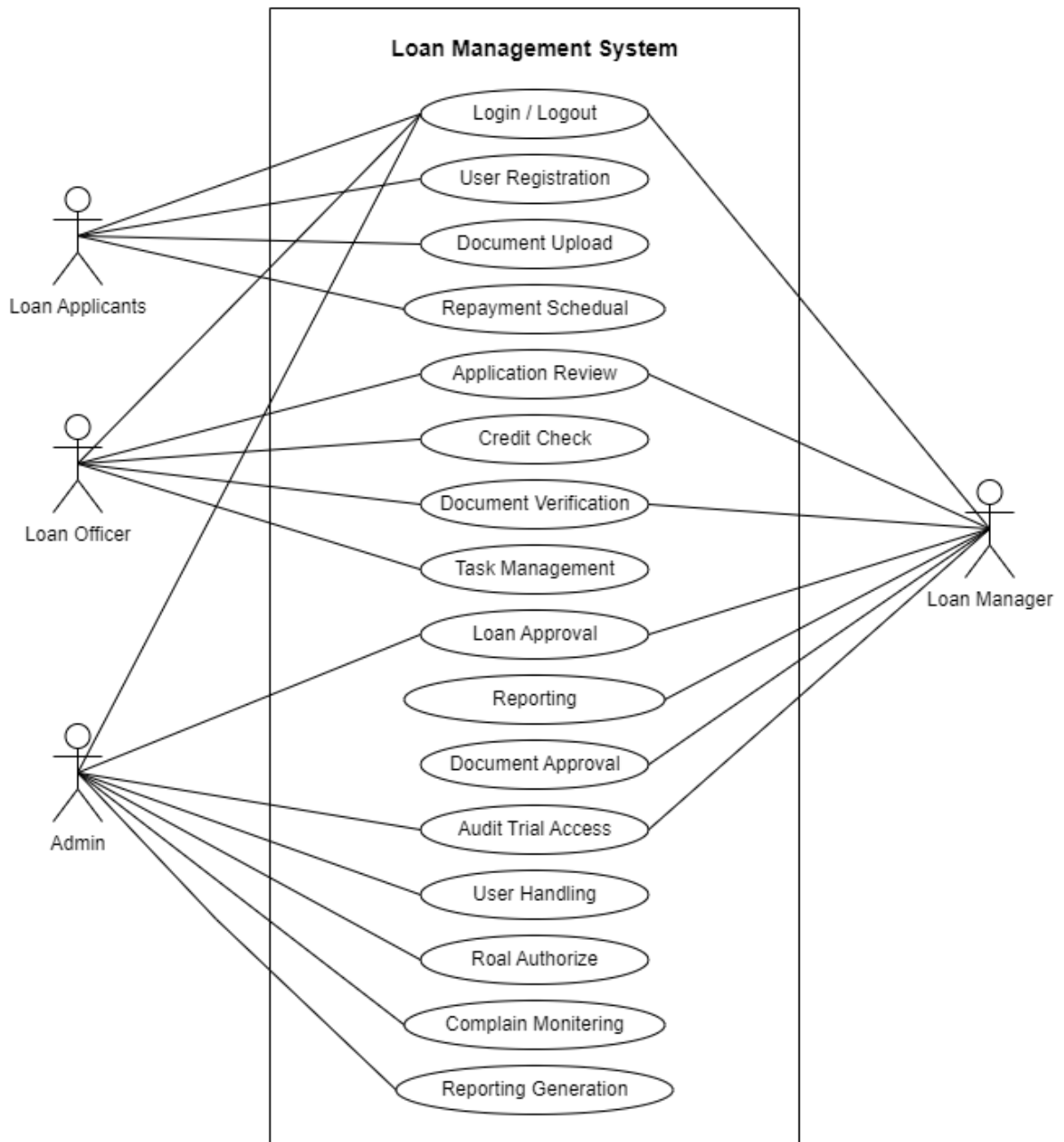


Figure 2.1-1 Use case diagram for loan management system

2.2 Activity diagram and Swimlane diagram

2.2.1 Activity diagram and Swimlane diagram for Loan Application/Apply Process

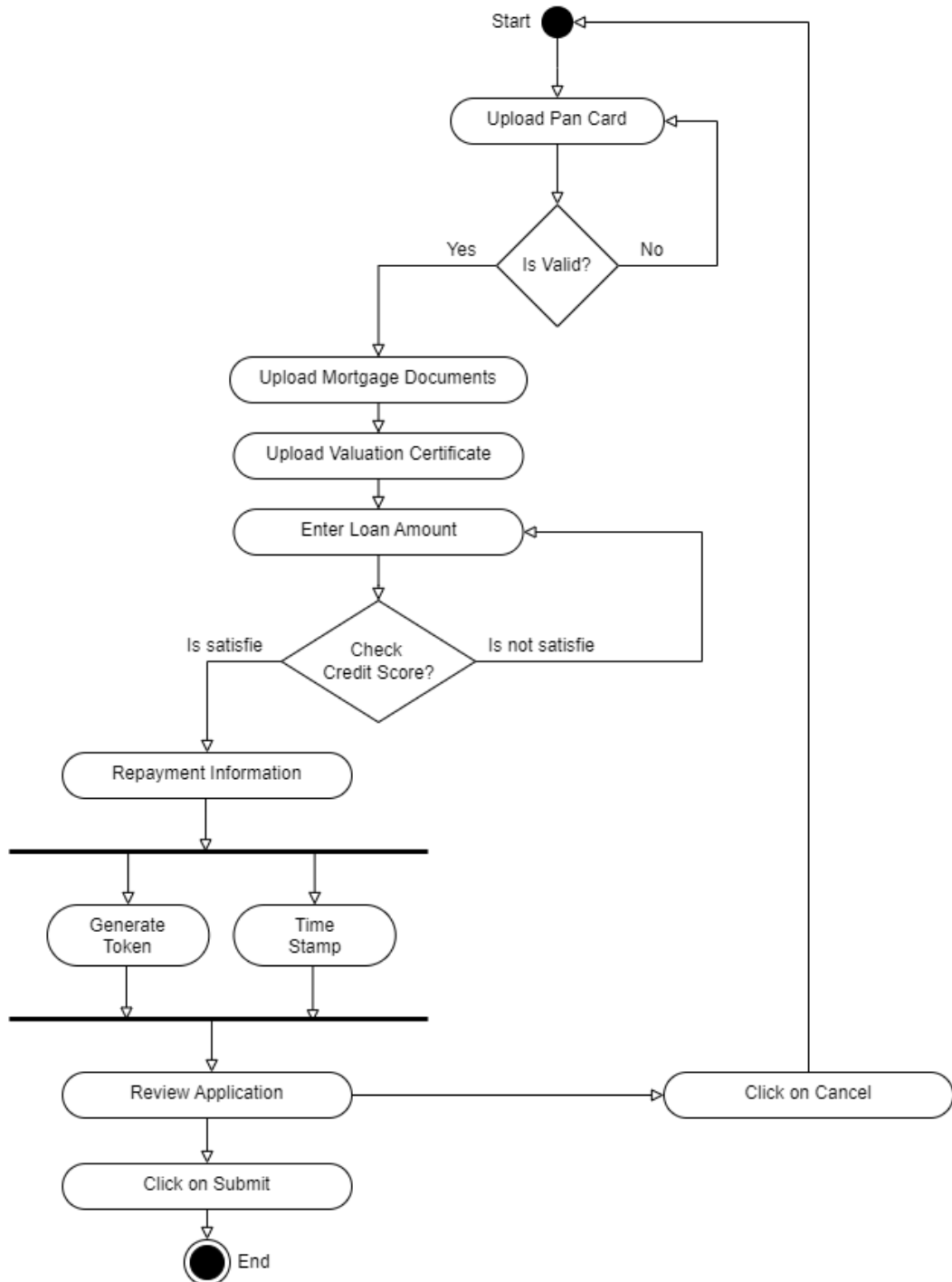


Figure 2.2-1 Activity diagram for Loan Application

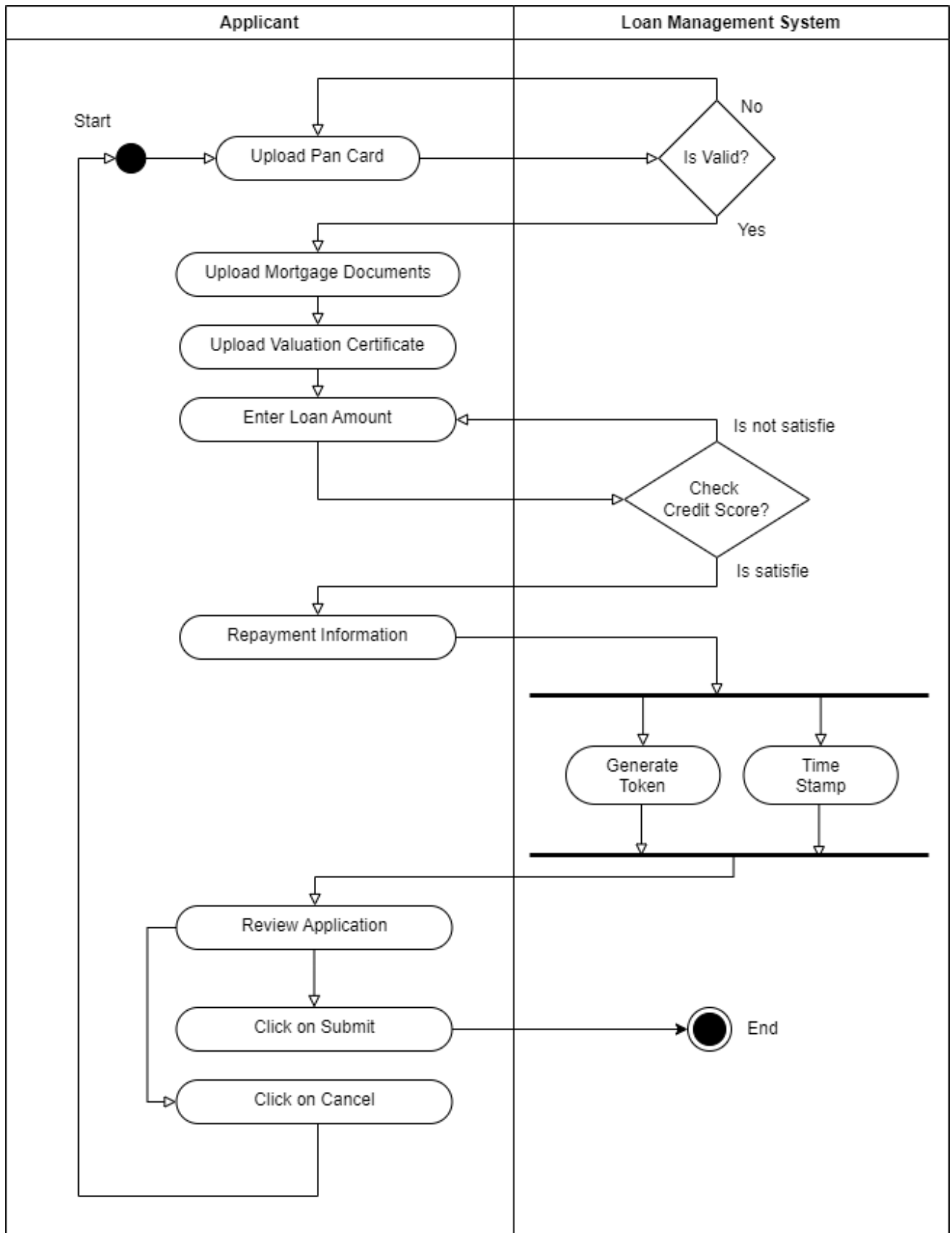


Figure 2.2-2 Swimlane diagram for Loan Application

2.2.2 Activity diagram and Swimlane diagram for Loan Approval Process

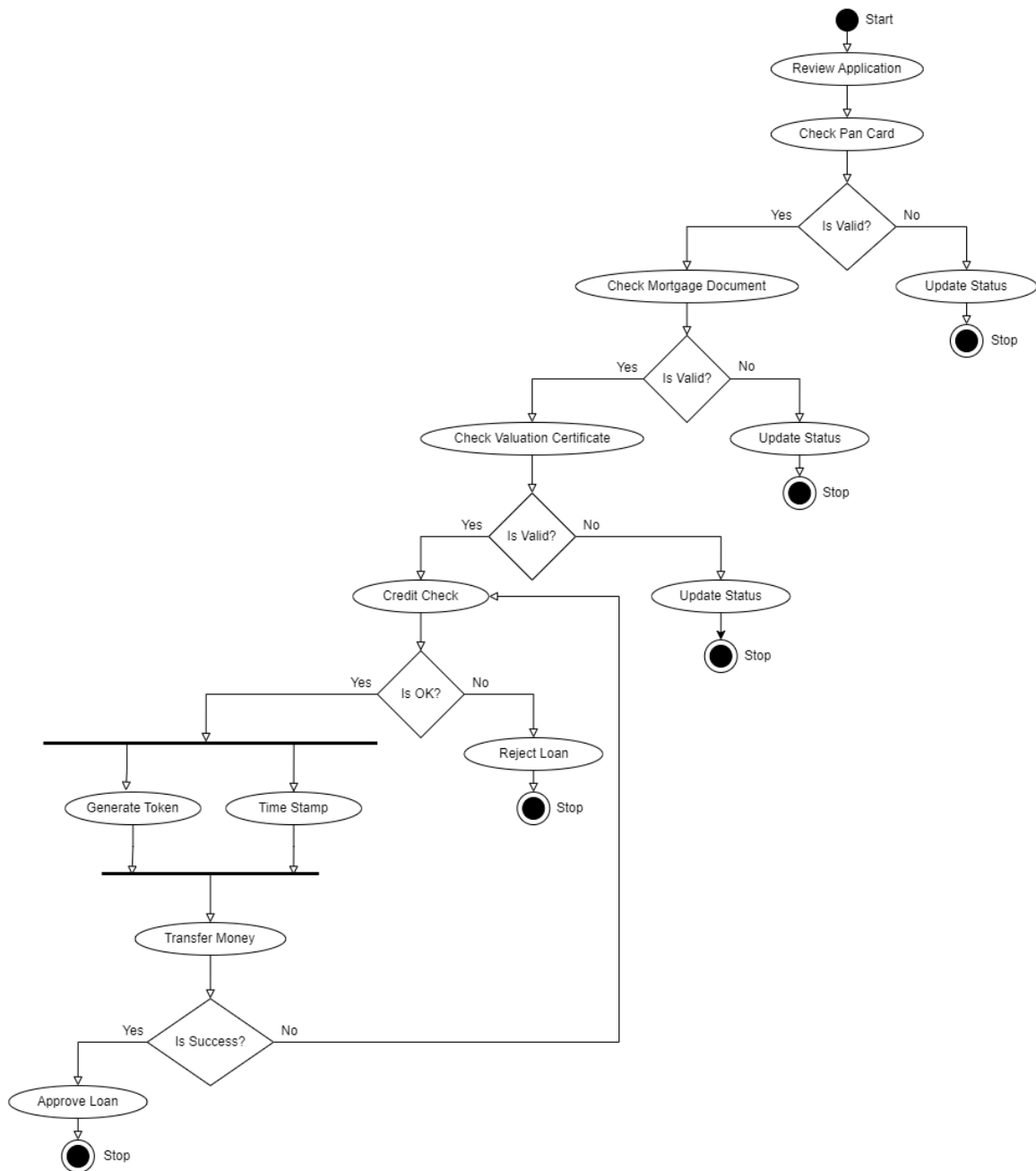


Figure 2.22-3 Activity diagram for Loan Approval

SRS – Loan Management System

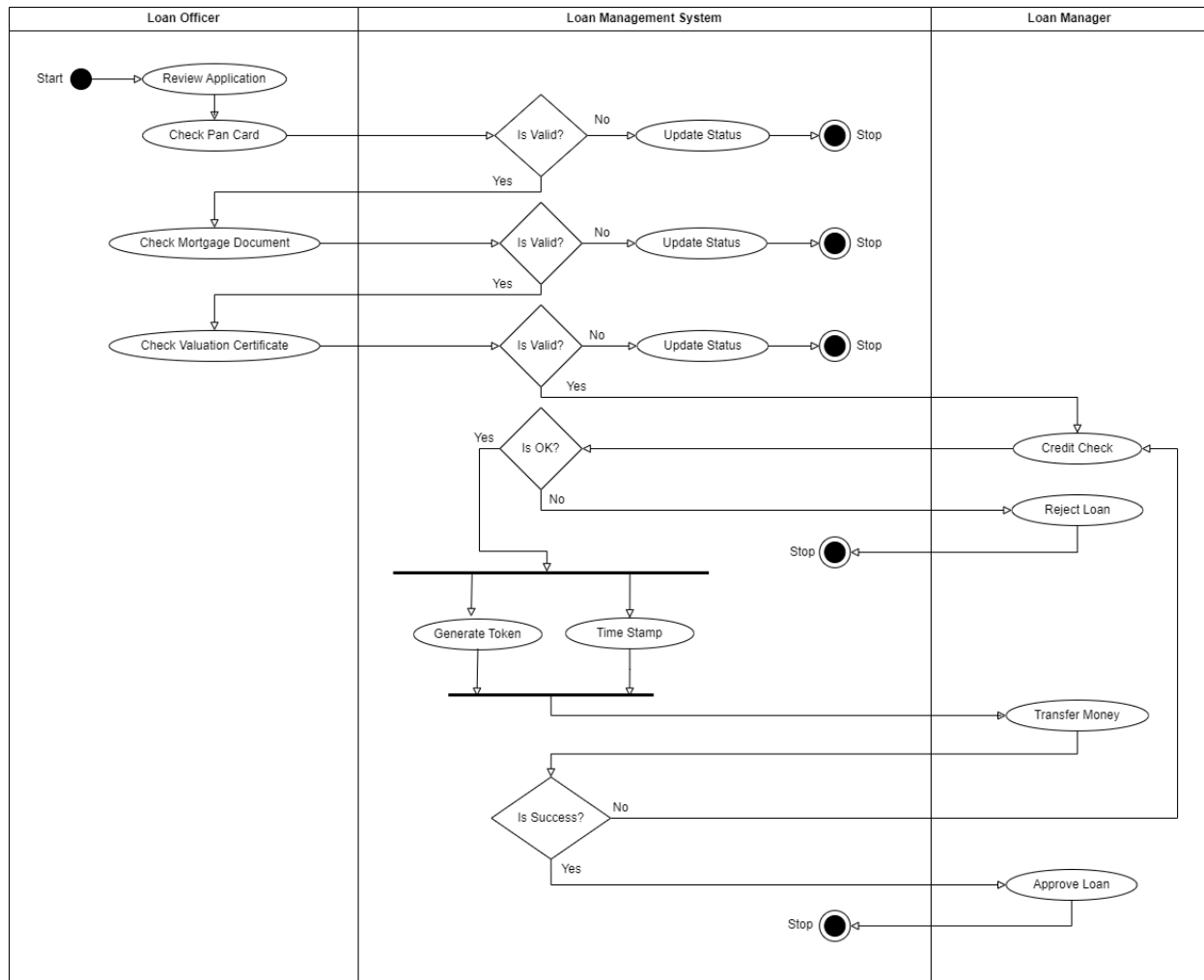


Figure 2.22-4 Swimlane diagram for Loan Approval

2.3 Sequence diagram

2.3.1 Sequence diagram for Loan Application

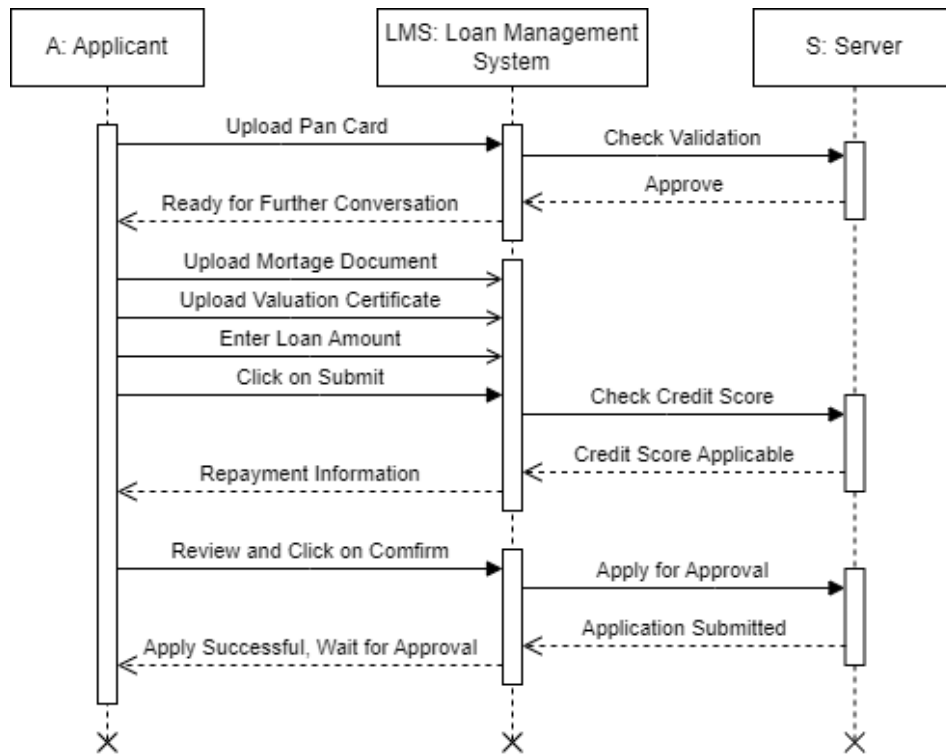


Figure 2.3-1 Sequence diagram for Loan Application

2.3.2 Sequence diagram for Loan Approval

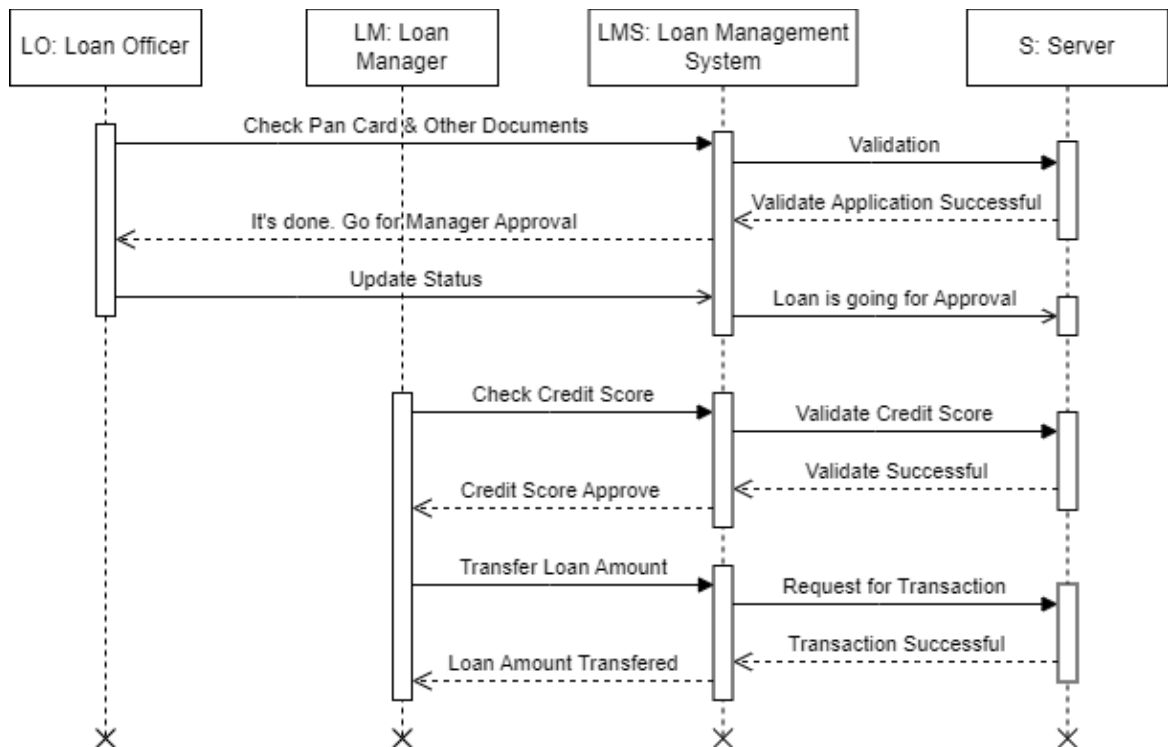


Figure 2.3-2 Sequence diagram for Loan Approval

2.4 State diagram

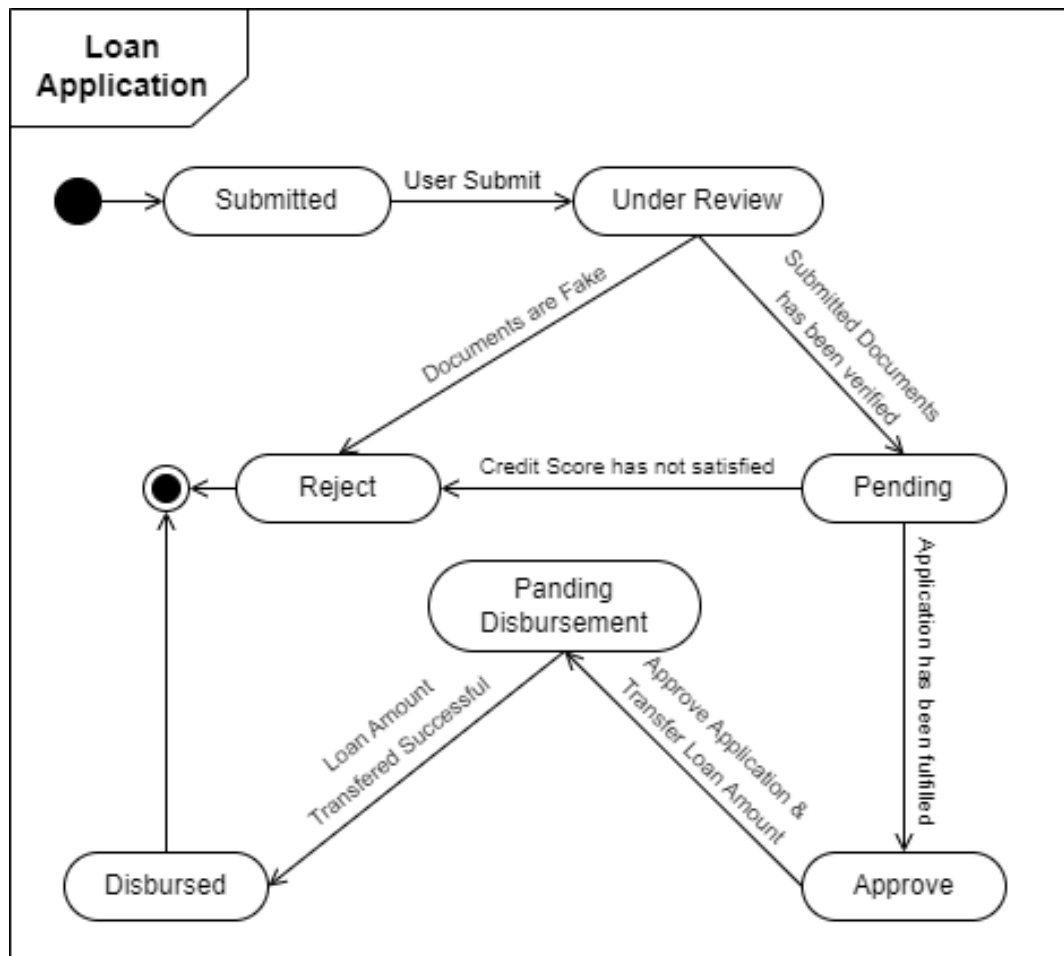


Figure 2.4-1 State diagram of Loan Application

2.5 Class diagram

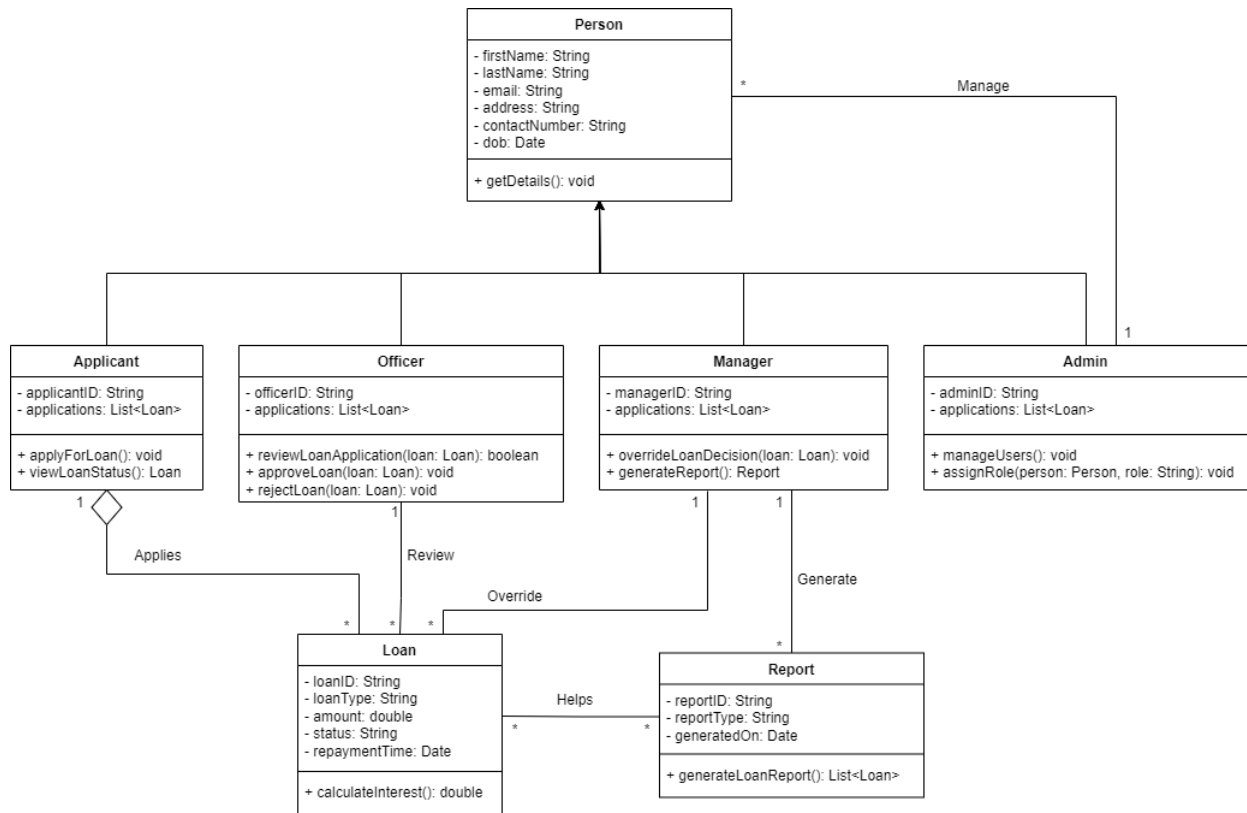


Figure 2.5-1 Class diagram for Loan Management System

2.6 Data flow diagram

2.6.1 Context diagram (level-0)

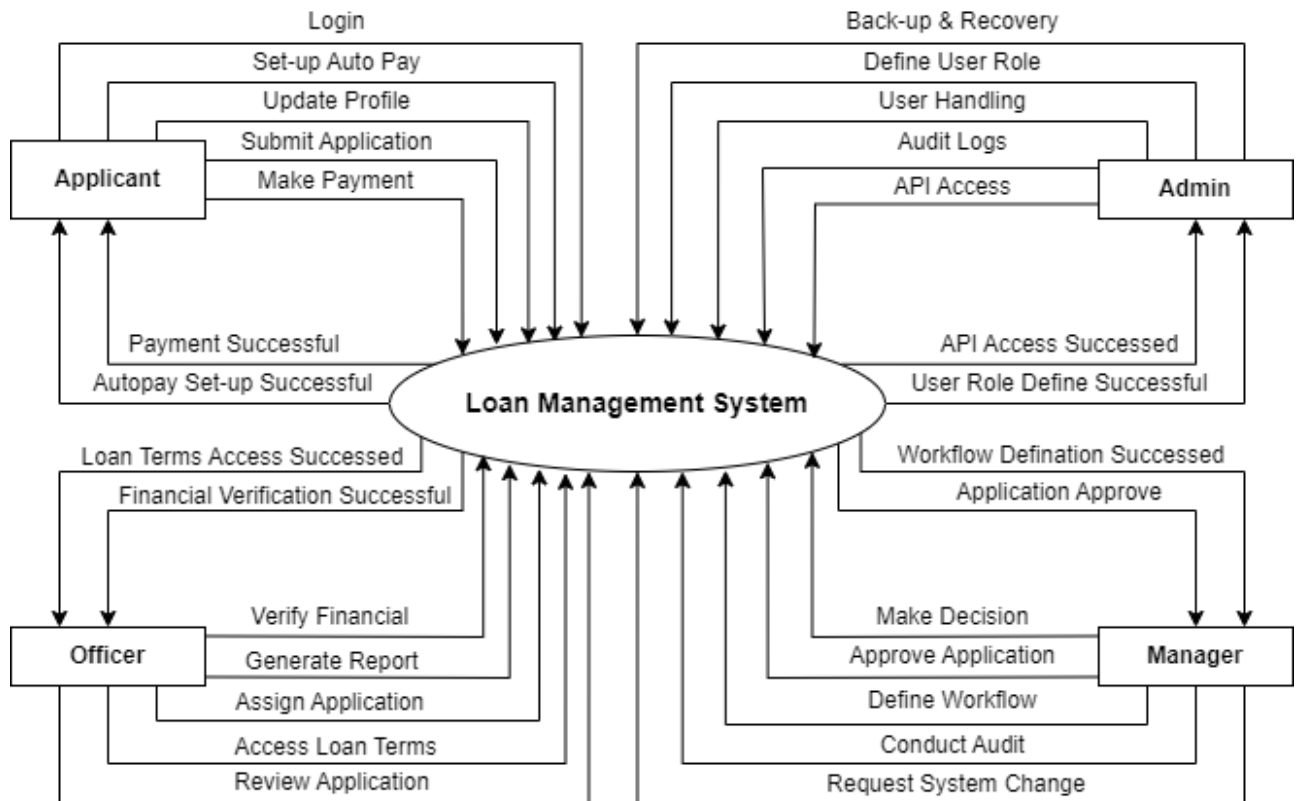


Figure 2.6-1 Context diagram (level-0) for Loan Management System

2.6.2 DFD Level-1 for Applicant

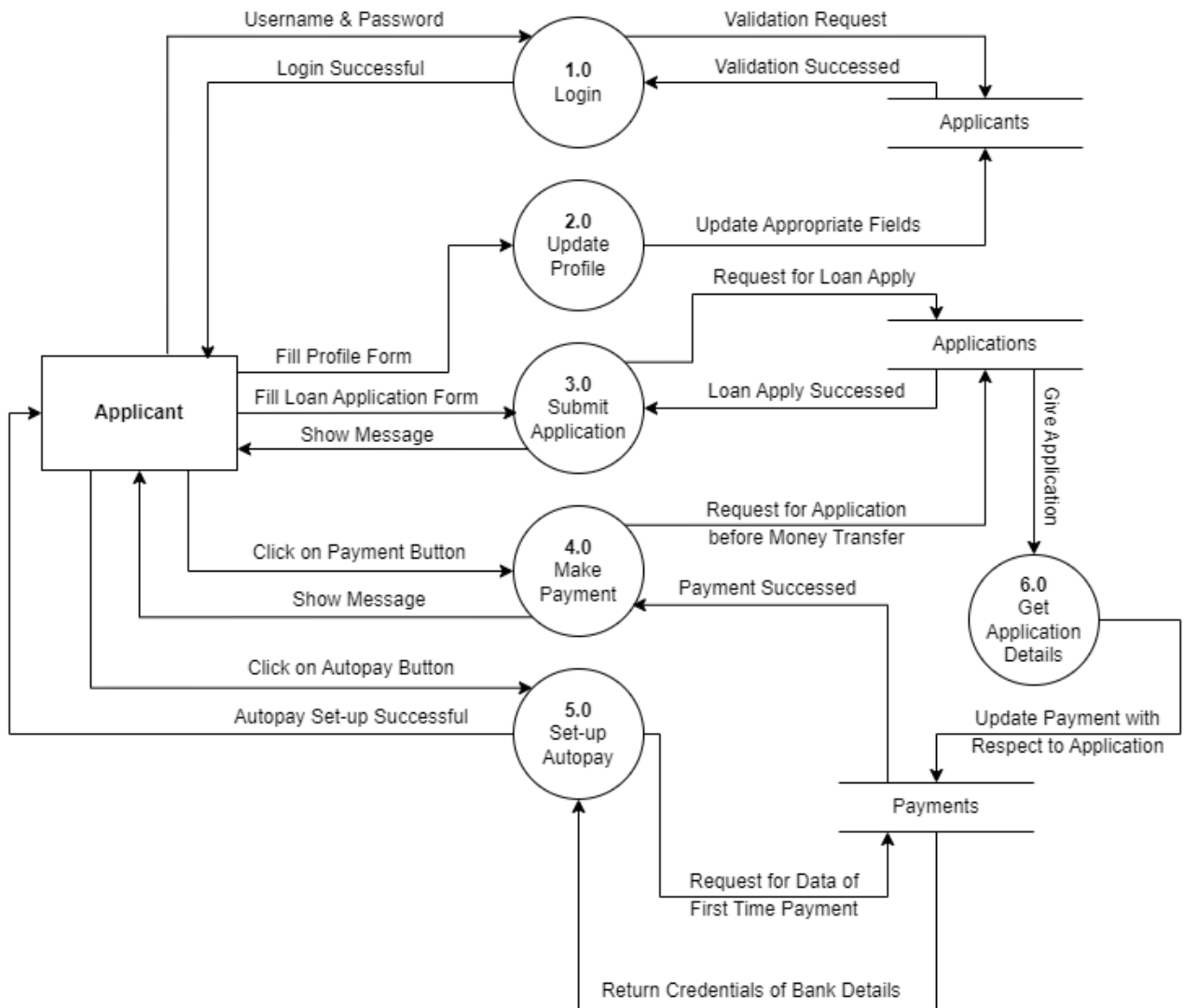


Figure 2.6-2 DFD level-1 for Loan Management System for Applicant

3 External Interface Requirement (Screens)

3.1 Screen-1: Landing Page

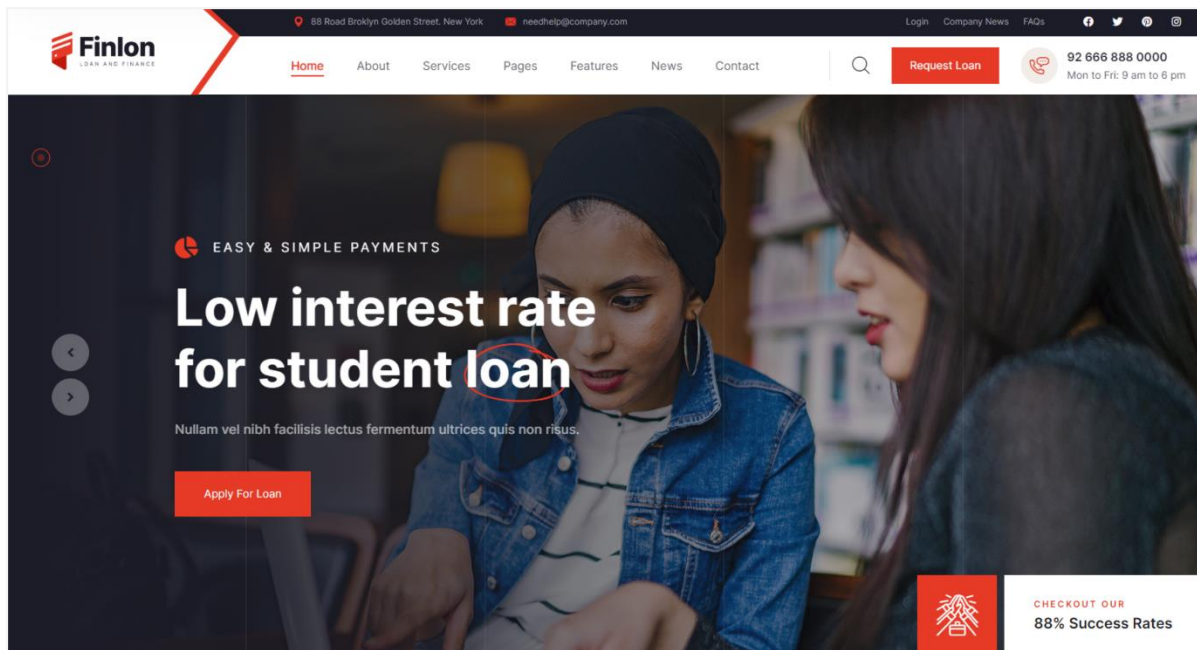


Figure 3.1-1 Screen-1: Landing Page

Purpose: It is a landing page to give best experience of users which have to stay connected with us.

Table 3.1-1 Screen element of Landing Page

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Logo	Image	M	1	Company Logo
2	Navigation Items	Links	M	N	All the items of use to navigations.
3	Background Carousel	Image	M	N	Carousel effect with animation to change images.
4	Heading	Text	M	1	Main page heading.
5	Description	Text	M	1	A sort of description about the loan company.
6	Button	Button	O	1	To navigate user from Apply for Loan section or page.

3.2 Screen-2: Services Page



Figure 3.2-1 Screen-2: Services Page

Purpose: This page to help to user for understanding services to provide Loan company.

Table 3.2-1 Screen element of Services Page

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Title	Text	M	1	Page title
2	Card	Card	M	N	Each card has the image, name and description about each loan services.
3	Service Image	Image	M	1	Image of Service.
4	Icon	Icon	M	1	Related icon of service.
5	Service Name	Text	M	1	Name of service.
6	Service Description	Text	O	1	Short description about service.
7	Button	Button	M	1	Help to user to navigate specific service page.

3.3 Screen-3: Monthly EMI Calculator

|| MONTHLY EMI ||

Loan Interest Calculator

Loan Amount

\$100000

Loan Months

12 Months

Interest Rate

10 %

Note: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Quam quisque id diam vel quam elementum. Amet mattis vulputate enim nulla aliquet porttitor.

Monthly EMI
\$8,791.59

Principal Text

Interest Text

Total Interest \$5,499.06

Total Amount Payable \$105,499.06

[Apply For Loan](#)

Figure 3.3-1 Screen-3: Monthly EMI Calculator

Purpose: To calculate monthly EMI before applying the Loan.

Table 3.3-1 Screen element of Monthly EMI Calculator

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Heading	Text	M	1	Heading of the calculator
2	Loan Amount	Range	M	1	To set loan amount.
3	Months	Range	M	1	To get for how many months.
4	Rate	Range	M	1	To set the interest rate.
5	Description	Text	O	1	If any conditions for user, put it here.
6	Monthly EMI	Text	M	1	Calculate Monthly EMI based on user input.
7	Statistics	Graph	O	1	Showing visually principal amount and interest amount
8	Total Interest	Text	M	1	Showing the total interest.
9	Payable Amount	Text	M	1	Showing the total payable amount.
10	Button	Button	M	1	Navigate to Apply for Loan section.

3.4 Screen-4: EMI Comparison

Comparison With Other Banks

Loan Amount Loan Years

\$50000 3 Years

Banks	Interest Rate (p.a.)	Processing Fees	EMI
abc Bank	8.4% - 12.6%	Upto 2.5%	\$3,152.12 - \$3,350.16
def Bank	9.6% - 13.85%	**\$20	\$3,207.97 - \$3,410.48
ghi Bank	Up to 6.21%	Upto 2.8%	Up to \$3,051.72
jkl Bank	5.9% Onwards	1.9% - 2%	\$3,037.66 Onwards
mno Bank	7.9% - 13.2%	**\$35	\$3,129.03 - \$3,379.04
pqr Bank	9.35% - 12.35%	Upto 3.5%	\$3,196.29 - \$3,338.17
stu Bank	8.5% - 9.6%	Upto 2.75%	\$3,156.75 - \$3,207.97
vwx Bank	9.5% - 14%	Upto 6.8%	\$3,203.29 - \$3,417.76
xyz Bank	10.49% - 17.99%	Upto 5.4%	\$3,249.77 - \$3,614.74

jkl Bank This indicates lowest emi.
**Terms and conditions apply as per banks.

Nullam vel nibh facilisis lectus fermentum ultrices quis non risus.
Lorem ipsum dolor sit amet, consectetur adipiscing elit. In hac habitasse platea dictumst.

Figure 3.4-1 Screen-4: EMI Comparison

Purpose: Comparison the Interest of the one bank to another bank.

Table 3.4-1 Screen element of EMI Comparison

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Heading	Text	M	1	Heading of the section
2	Description	Text	O	1	If any conditions or extra charges for user, put it here.
3	Loan Amount	Range	M	1	To set loan amount.
4	Year	Range	M	1	To get for how many years.
5	Table	Table	M	1	Comparison table for so many banks' interest rate with EMI

3.5 Screen-5: Contact Page

Figure 3.5-1 Screen-5: Contact Page

Purpose: This form will allow the users to connect with us.

Table 3.5-1 Screen element of Contact Page

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Heading	Text	M	1	Heading of the section
2	Description	Text	O	1	Description of this section.
3	Icons	Icon	M	N	Many more social media where connect the user easily.
4	Full Name	Textbox	M	1	Name field should be editable and accept the Name.
5	Email	Textbox	M	1	Email field should be editable and accept the email with proper format.
6	Phone Number	Textbox	M	1	Phone number field should be accepted by the user with proper format.
7	Subject	Textbox	M	1	Who is the main objective to message. Accept for this purpose.
8	Message	Text area	M	1	Message field should be accepting the message of user. User what to say?
9	Button	Button	M	1	Button which must click after message reach out of company's dashboard.

4 Database design

4.1 List of Tables

- Applicants
- Applications
- Staff
- Reports
- Payments

Table 4.1-1 Table: Applicants

Column	Data Type	Null	Keys & Constrains	Default Value & Description
ApplicantID	Int	NN	PK (Auto Increment)	-
ApplicantName	Varchar(250)	NN	-	-
ApplicantAge	Int	NN	-	-
ApplicantContact	Varchar(10)	NN	-	-
ApplicantEmail	Varchar(100)	NN	-	-
ApplicantAddress	Varchar(750)	AN	-	-
ApplicantPanCardNumber	Varchar(10)	NN	-	-
ApplicantApplications	Array(ApplicationID)	AN	FK	Reference of Applications Table

Table 4.1-2 Table: Applications

Column	Data Type	Null	Keys & Constrains	Default Value & Description
ApplicationID	Int	NN	PK (Auto Increment)	-
ApplicantID	Int	NN	FK	Reference of Applicants Table
MortgageDocument	Varchar(250)	NN	-	-
ValuationCertificate	Varchar(250)	NN	-	-
LoanAmount	Decimal(10, 2)	NN	-	-
ApplicationStatus	Varchar(20)	AN	-	-
isAutoRepayment	Boolean	NN	-	-

Table 4.1-3 Table: Staff

Column	Data Type	Null	Keys & Constrains	Default Value & Description
StaffID	Int	NN	PK (Auto Increment)	-
StaffRole	Varchar(20)	NN	-	-
AssginApplications	Array(ApplicationID)	AN	FK	Reference of Applications Table
StaffName	Varchar(250)	NN	-	-
StaffAge	Int	NN	-	-
StaffContact	Varchar(10)	NN	-	-
StaffEmail	Varchar(100)	NN	-	-
ApplicantAddress	Varchar(750)	AN	-	-

Table 4.1-4 Table: Reports

Column	Data Type	Null	Keys & Constrains	Default Value & Description
ReportID	Int	NN	PK (Auto Increment)	-
ApplicationID	Int	NN	FK	Reference of Application Table
CreditScoreAmount	Decimal(9,2)	AN	-	-
PaymentsRegularization	Array(PaymentID)	AN	FK	Reference of Payments Table

Table 4.1-5 Table: Payments

Column	Data Type	Null	Keys & Constrains	Default Value & Description
PaymentID	Int	NN	PK (Auto Increment)	-
ApplicationID	Int	NN	FK	Reference of Application Table
PendingAmount	Decimal(9,2)	AN	-	-
PaymentMode	Varchar(20)	NN	-	-
ReferencelD	Varchar(250)	NN	-	-
PayementDate	Datetime	NN	-	-

5 Stories and Scenario

5.1 Story-1: Add New Book in Library Catalogue

Story # S1	:	As a Librarian, I want to add a new book in library catalogue So that everyone can easily find and borrow it.
Priority	:	High
Estimate	:	XL
Reason	:	The addition of a new book to the library catalogue is crucial for ensuring that the library's collection is up-to-date and accessible to everyone.

5.1.1 Scenario# S1.1

Scenario# S1.1	:	Adding a New Book with Valid Information
Prerequisite	:	Librarian is logged in to the Library management system.
Acceptance Criteria	:	<p>Given: The Librarian is navigated to the library catalog management page. Valid book information, including title, author, ISBN, and other relevant details is added.</p> <p>When: The librarian selects the "Add New Book" option And The librarian enters valid book details The librarian clicks the "Save" button to add the book to the catalog.</p> <p>Then the system successfully adds the book to the catalog and the librarian receives a confirmation message with the book's identification number.</p>

5.1.2 Scenario# S1.2

Scenario# S1.2	:	Adding a New Book with Invalid Information.
Prerequisite	:	The librarian is logged into the library management system.
Acceptance Criteria	:	<p>Given: The librarian is on the library catalogue management page</p> <p>When: The librarian selects the "Add New Book" option and the librarian enters an incomplete or incorrect book details and librarian clicks the "Save" button to add the book to the catalogue.</p> <p>Then the system displays error messages for the incorrect or missing information and the book is not added to the catalogue.</p>

5.1.3 Scenario# S1.3

Scenario# S1.3	:	Attempting to Add a Duplicate Book
Prerequisite	:	The librarian is logged into the library management system and the librarian is on the library catalogue management page
Acceptance Criteria	:	<p>Given: The book information, including title, author, ISBN, and other relevant details, is available and the book with the same ISBN is already in the catalogue.</p> <p>When: User Clicks on "Add book" button. Enter a number of copies with the same book detail mentioned in the field.</p>

Then: Generate unique book id, barcode and spine label for various book of same title.

5.2 Story-2: Search Book

Story # S2	:	As a Librarian or member, I want to search for books by title, author, or keyword, So that I can quickly find books that match my interests.
Priority	:	High
Estimate	:	M
Reason	:	Implementing a search functionality is essential for enhancing the user experience, as it allows librarian and member to efficiently discover and access the library's resources.

5.3 Story-3: Manage due date for borrowed book

Story # S3	:	As Librarian, I want to manage due dates for borrowed books So that I can ensure that books are returned on time and avoid overdue fines.
Priority	:	High
Estimate	:	M
Reason	:	Proper due date management is crucial for maintaining the library's collection and ensuring that books are available for all members.

5.4 Story-4: Renew book

Story # S3	:	As Librarian, I want to renew a book that I have borrowed So that I can extend my borrowing period if needed.
Priority	:	Medium
Estimate	:	M
Reason	:	Book renewal functionality is a convenience feature for librarian, allowing them to keep a book for an extended period if no one else has requested it.

5.5 Story-5: Generate a report on book usage and availability

Story # S3	:	As Librarian, I want to generate reports on library usage and book availability So that I can make informed decisions about library's books.
Priority	:	Medium
Estimate	:	L
Reason	:	Reporting functionality helps librarians track the usage of library resources and make data-driven decisions to improve services and collections.

6 Test cases

Project Name:	EMI Calculator	Test Designed by:	P. U. Jadeja
Module Name:	Login	Test Designed date:	01-10-2023
Release Version:	1.0	Test Executed by:	R. B. Gondaliya
		Test Execution date:	15-01-2023

Pre-condition: Web application should be accessible				
Test Case ID	Test Title	Test Type	Description	Test Case ID
TC_001	Login to web application with valid credential	Functional	Login to Library management system web application through valid credential	TC_001
TC_002	Login to web application with invalid credential	Functional	Login to Library management system web application through invalid credential	TC_002
TC_003	Verify login page elements	GUI	verify that all elements are available on login page	TC_003

Test Case Title	Login to web application with valid credential
Test Type	Functional
Test Priority	High
Pre-condition	Web application should be accessible

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	BUG ID
1	Access Web application URL	The site launched properly	Site launched successfully	Pass		https://accounts.google.com/ServiceLogin	
2	Enter valid Username in username field	Username field should be editable and accept the Username	Username input accepted	Pass		Username: Rbgondaliya@gmail.com	
3	Enter valid Password in Password field	Password field should be editable and accept the password and display as star or dot	Password input displayed in dot and accepted	pass		Password: rbgondaliya	
4	Enter valid captcha code in captch field	Captch field should be editable and accept captcha and captcha is case sensitive	Captcha input accepted	Pass	Step required when human action validation	get captcha from image which is near by captcha field	

					perform		
5	Click on login button	User should login into site and navigated to dashboard	User navigated to dashboard and username should be display in top of the right side.	pass			

Test Case Title	Login to web application with invalid credential
Test Type	Functional
Test Priority	Medium
Pre-condition	Web application should be accessible

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Verify that User is not able to Login with invalid Username and invalid Password	Should be display an error message enter wrong username or password	Display an error of wrong username and password	Pass			
2	Verify that User is not able to Login with Valid Username and invalid Password	Should be display an error message enter wrong password	Display an error of wrong password	Pass			
3	Verify that User is not able to Login with	Should be display an error message	Display an error Username not found	Pass			

	invalid Username and Valid Password	User not found					
4	Verify that User is not able to Login with blank Username or Password	Set required field validation message for Username and Password	Display an error of wrong username and password	Fail	Not perform a validation function fix it		Bug_002

Test Case Title	Varify login page elements
Test Type	GUI
Test Priority	Medium
Pre-condition	Web application should be accessible

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Launch application with the given url	The site launched properly	Site launched successfully	Pass		https://accounts.google.com/ServiceLogin	
2	Verify that the login screen contains elements such as Username, Password, Sign in button, Remember password check box, Forgot password link, and Create an account link.	All listed control displayed properly on the page	Login page loaded successfully	Pass			

3	Verify that cursor is focused on "Username" text box on the page load	Cursor is focused in Username textbox	Cursor focus in Username textbox	Pass			
4	Verify that tab functionality is working properly or not	When tab pressed cursor move in next control	Cursor moving in next control	Pass			
5	Verify that all the fields such as Username, Password has a valid placeholder	All text fields have proper placeholder	All text fields have proper placeholder	Pass			
6	Verify that the labels float upward when the text field is in focus or filled (In case of floating label)	When field is focused or filled, label display on top of the filled	When field is focus or filled, label display on top of the filled	Pass	step required when fields with floating label		
7	verify that forgot password link working properly	when click on forgot password load forgot password page	forgot password link not working	Fail			

7 References

- http://www.w3schools.com/html/html_intro.asp
- <https://www.w3schools.com/php/default.asp>
- <https://www.javatpoint.com/uml>