Software Requirement Specification(SRS) for

Loan Management System

1. Introduction

1.1 Purpose:

This document is meant to delineate the features of Loan Management System Portal, so as to serve as a guide to the developers on one hand and software validation document for the prospective client on the other.

It is a system design especially for large, premium and Loan application business. The Loan management system provides complete functionality of listing and Apply for loan. In this system, verification and approval facilities also provide.

1.2 Scope:

This system allows the Users to easily Apply for loan and approval by authorized persons whenever they need with use of this system.

1.3 Definitions:

LMS- Loan Management System

SRS- Software Requirement Specification

GUI- Graphical User Interface

1.5 Overview:

The Loan Management System is a platform through which we will connect with people who are possessing Loan in house and want to apply for loan price. At this platform we will take description, type, quantity, photos of Documents from Customer and put a post on website we can explore it check for requirement by manager , clerk, investigator and different authorities to a person. According to their need for loan and amount they required .

EXISTING SYSTEM

- ✓ An existing system need physically meet to Bank .
- ✓ The customer have to go to bank and apply for that particular loan also need to provide documentation as per the loan requirement , this may take time for process .
- ✓ In the existing system customer have to present while apply for loan for physical verification .

NEED FOR NEW SYSTEM

- ✓ The new system is totally computerized system.
- ✓ A new system provides features like time efficiency to show Loan details and whatever the user will apply for loan and get approval from the admin.
- ✓ This system provides ease in trading the loan and perfect amount to EMI and payment details the loan without much effort.

- ✓ The Application can be easily done by user in the system.

2.Overall Description:

The main page of the website will contain various loan details and website facilities . Through this page anybody who is visiting this website will get to see these posts which will be ordered according to latest uploaded post in ascending manner. This provide EMI calculator all details of website , this is provide us with the persons contact details . This page will also contain approximate current rates of different types of Loan . The page will also provide Calculator as feature to the users to make their job easy.

For Customer must login first. If a user is not registered on the website, then they have to register first using register option. After successful login user can Apply for loan . Customer can apply for various loan with different amount to various Loan like Home, Car, Personal with respective interest rate.

For uploading document and apply for loan also have to login first.

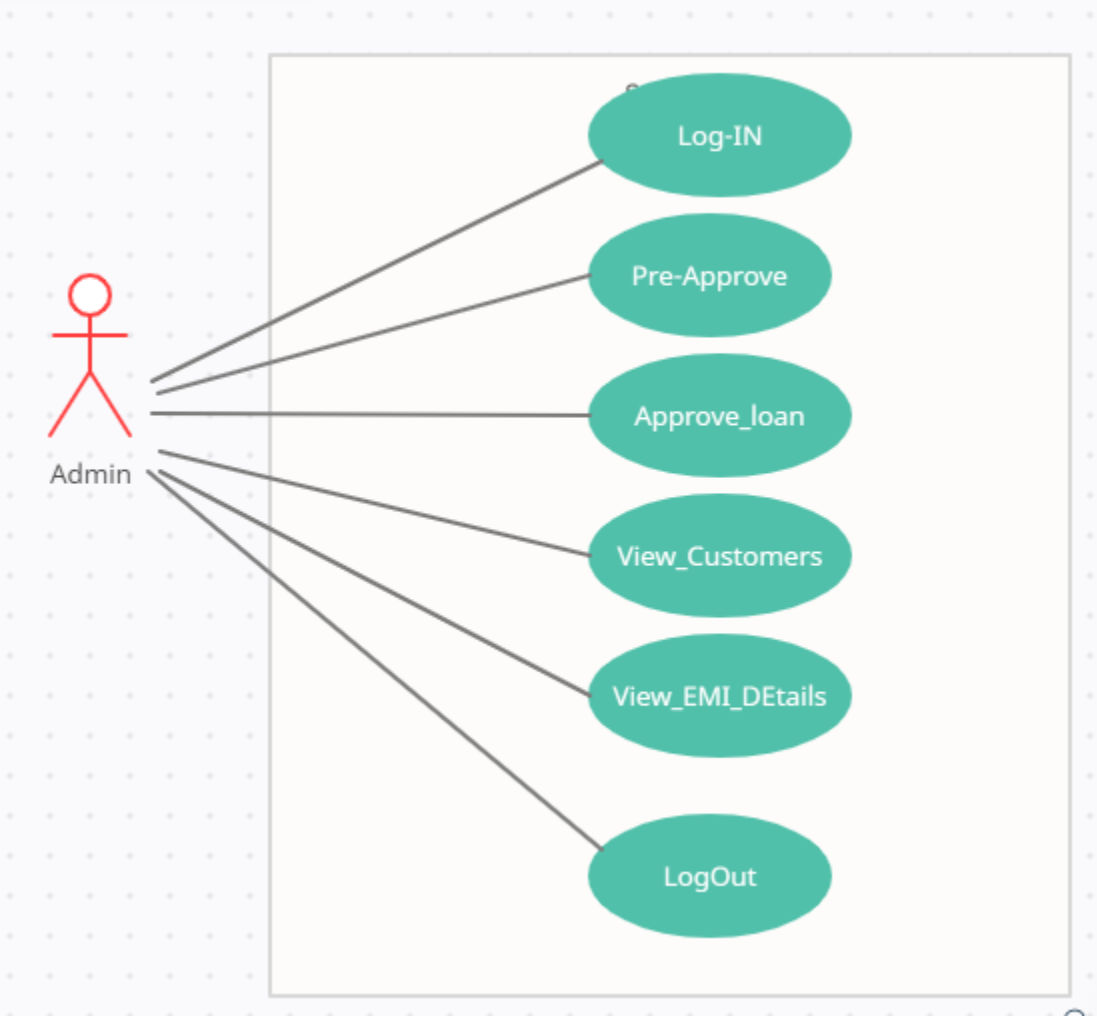
For approval of a loan the bank staff should have to Log In first to pre-approve loan by Clerk, approve by the Manager , and Investigator to check the required details. To view all the details of the Customer and the their respective loan Status.

2.1 Product Functions:

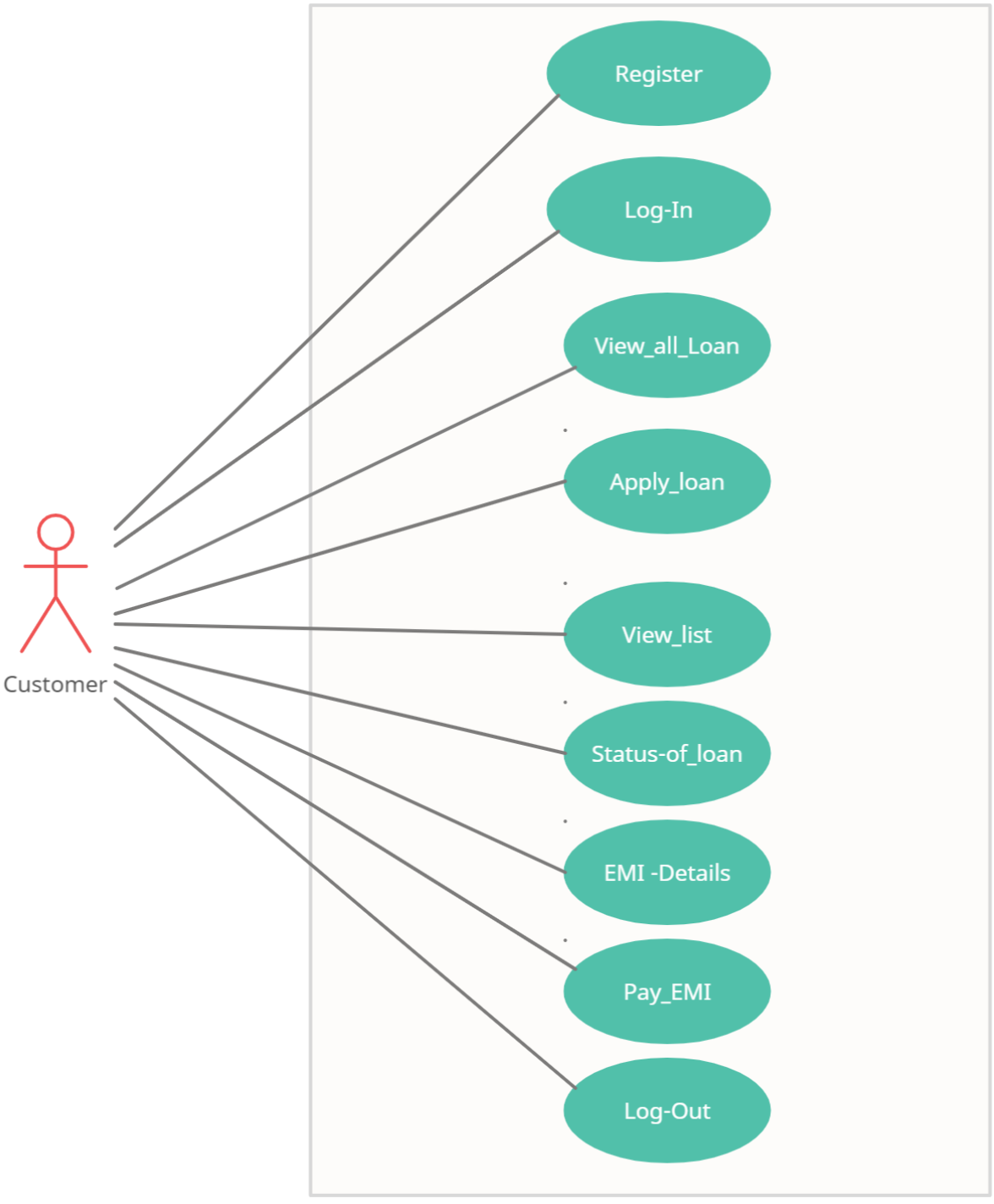
Loan Management System should support this use case:

Use Case Diagrams : A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor - Sender, Secondary- Actor Receiver.

Use case diagram for admin



Use Case diagram for User



2.3 User Characteristics:

User should be familiar with the terms like login, register, Apply for loan , Pay EMI etc.

2.4 Principle Actors:

2 Principle Actors are Users and Administrator.

2.5 General Constraints:

A full internet connection is required for LMS.

2.6 Assumptions and Dependencies:

Working of LMS need Internet Connection.

3. Specific Requirements:

3.1 FUNCTIONAL SPECIFICATION

User Specification

Admin:

Admin can see uploaded post and user's information. Admin can view Loan Customer and Status. If Document is received about fraud by any user or complain about any post then admin can warn user or remove them.

User:

Customer:

This can apply for the loan , customer can register if he is new for the website and want to apply for the various loans . also he can find out the EMIN details for that loan Amount . Customer Can View the total loan applied by him and can see the Status of the loan .

Able to pay the EMI of approved loan and can fetch the total list of the loan.

MODULE SPECIFICATION

User

Customer

•View Available Loan:

It is a system design especially for various type of Loan. The user can view Available Loan.

•View Loan :

It is a system design especially for various Loan Details. View the Loan with information.

•Status of loan:

Customer can view the status of the loan he applied for .

•Pay EMI :

The Can pay the EMI by this platform.

•EMI Details:

The Customer can view all payment or EMI related Details.

•Update Details:

The Customer can Update his profile Details.

Admin

Clerk:

In this section admin can view the details of applied customer for loan.

He have authority to Pre-approve the Customer.

Can view the list of all customer.

Investigator:

In this section admin can view the details of applied customer for loan.

He have authority to approve the Customer.

Can view the list of all customer.

Manager:

In this section admin can view the details of applied customer for loan.

He have authority to approve and Reject the Customer.

Can view the list of all customer. With their Status and can fetch by their ID.

3.2 Non-Functional Requirements:

Following Non-Functional Requirements will be there in the insurance to the internet:

(i) Secure access to consumer's confidential data.

(ii) 24X7 availability.

(iii) Better component design to get better performance at peak time.

(iv) Flexible service based architecture will be highly desirable for future extension.Non-Functional Requirements define system properties and constraints.

Various other Non-Functional Requirements are:

- Security
- Reliability
- Maintainability
- Portability
- Extensibility
- Reusability
- Compatibility
- Resource Utilization

3.3 Performance Requirements:

In order to maintain an acceptable speed at maximum number of uploads allowed from a particular customer as any number of users can access to the system at any time. Also the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times.

3.4 Technical Issues:

This system will work on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE,mozzila firefox,chrome etc.

HARDWARE REQUIREMENT

Hardware requirements for insurance on internet

will be same for both parties which are as follows:

RAM	2 GB
Hard disk	320 GB
Processor	Dual Core

Software Requirements

Client side:

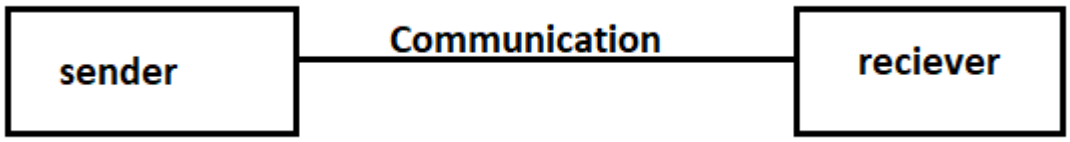
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

Server side:

Web Server	TOMCAT
Server side Language	SpringBoot
Database Server	MYSQL
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

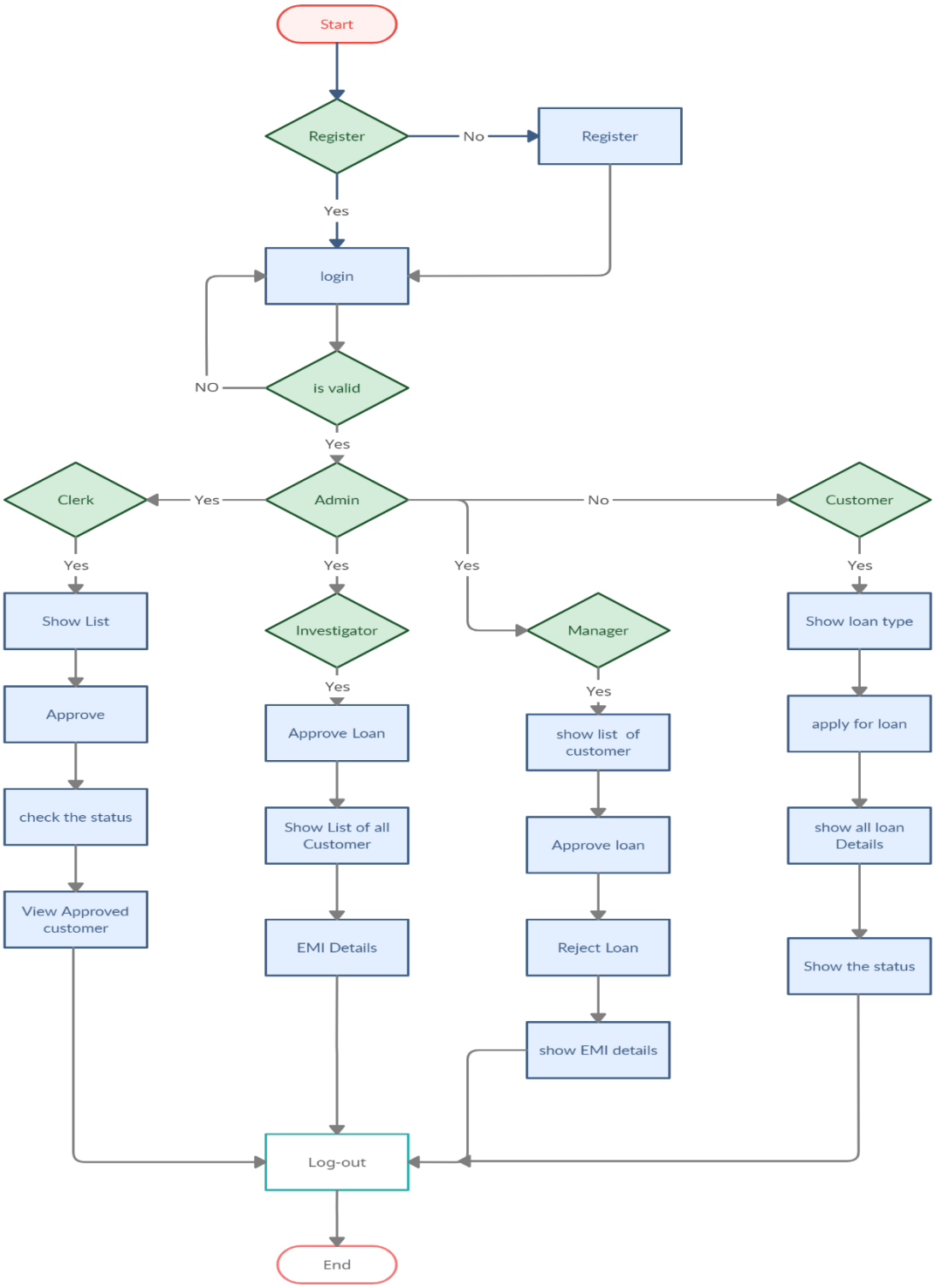
Communication Interfaces:

The two parties should be connected by LAN or WAN for the communication purpose.



5.System Design Specification:

System Flow Chart



ER DIAGRAM

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

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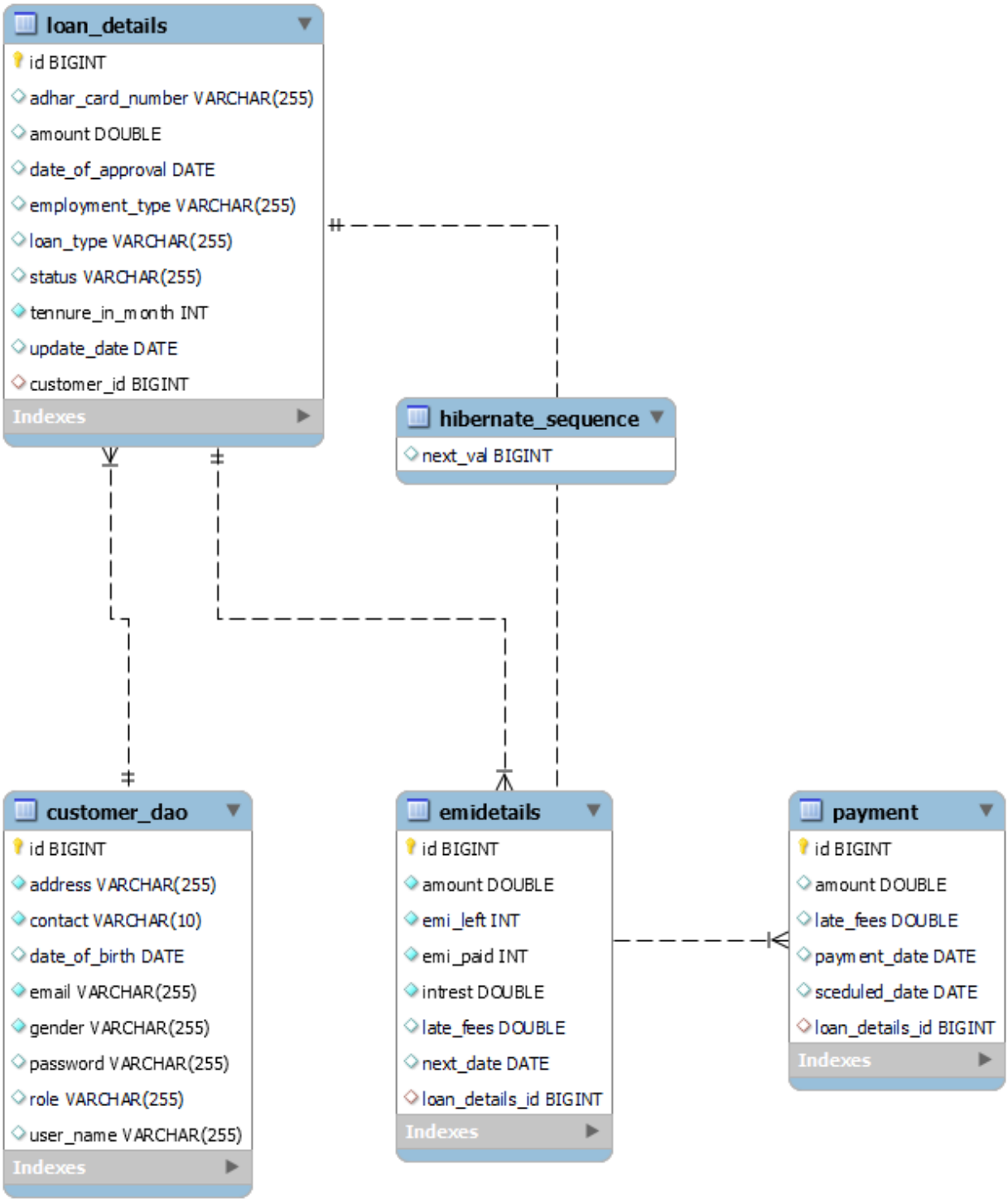
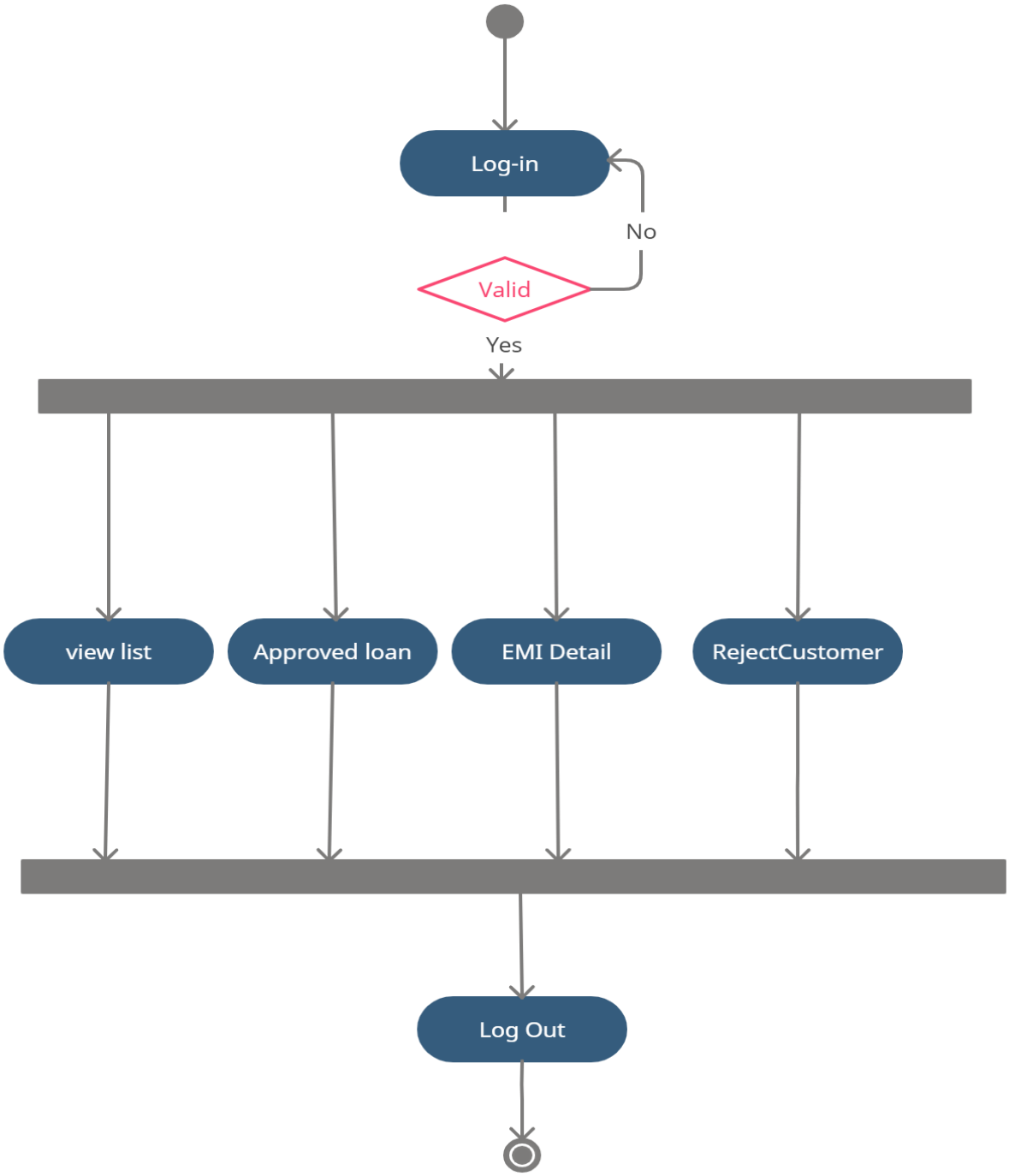
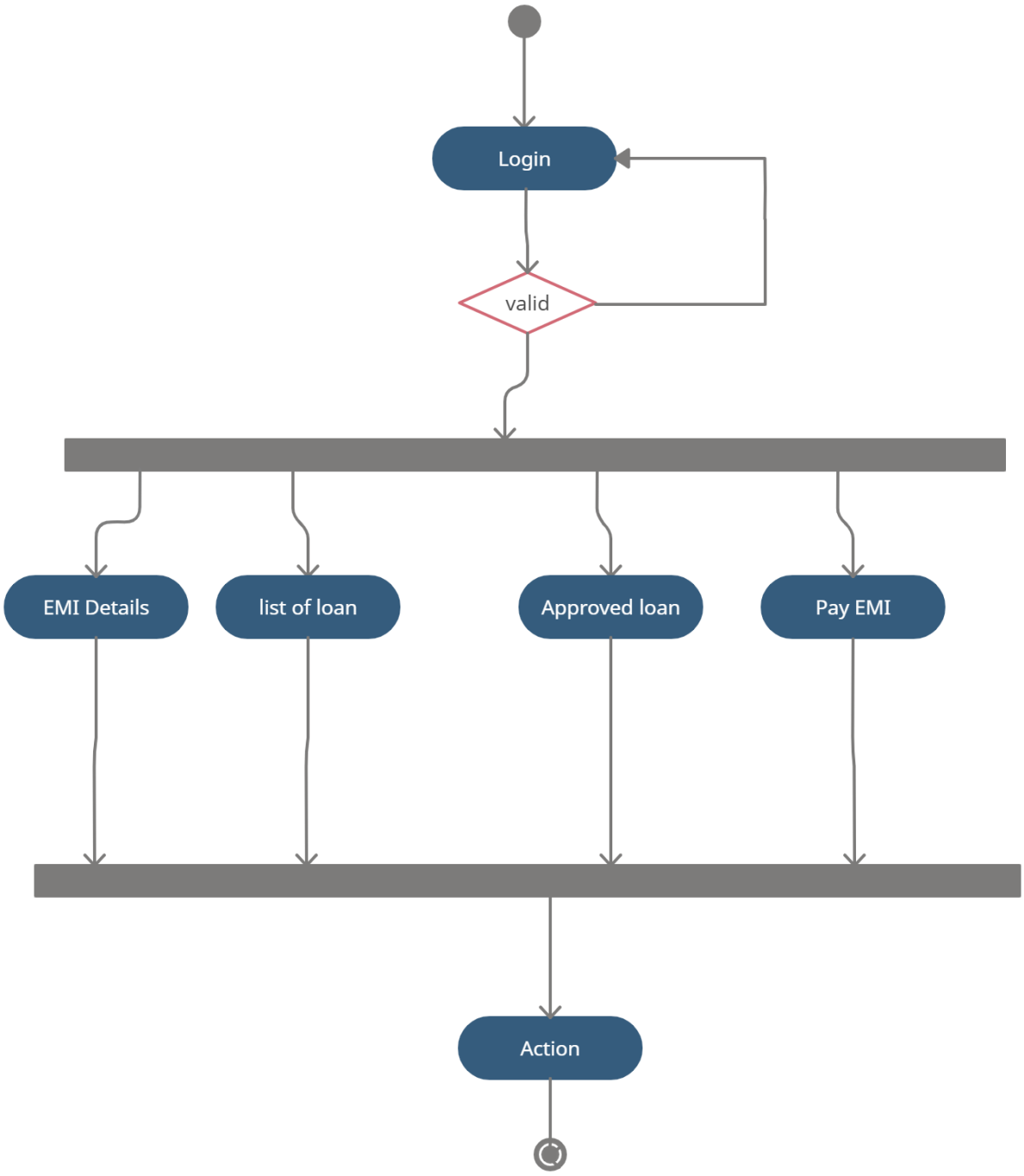

loan_details
id BIGINT
adhar_card_number VARCHAR(255)
amount DOUBLE
date_of_approval DATE
employment_type VARCHAR(255)
loan_type VARCHAR(255)
status VARCHAR(255)
tennure_in_month INT
update_date DATE
customer_id BIGINT
Indexes
hibernate_sequence
next_val BIGINT
customer_dao
id BIGINT
address VARCHAR(255)
contact VARCHAR(10)
date_of_birth DATE
email VARCHAR(255)
gender VARCHAR(255)
password VARCHAR(255)
role VARCHAR(255)
user_name VARCHAR(255)
Indexes
emidetails
id BIGINT
amount DOUBLE
emi_left INT
emi_paid INT
intrest DOUBLE
late_fees DOUBLE
next_date DATE
loan_details_id BIGINT
Indexes
payment
id BIGINT
amount DOUBLE
late_fees DOUBLE
payment_date DATE
sceduled_date DATE
loan_details_id BIGINT
Indexes

Activity Diagram for admin



Activity Diagram for user



DATABASE DESIGN

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MS Access database has been chosen for developing the relevant databases.

User Registration:

Table Name	customer_dao user
Description	This table is provide the information about User registration
Primary Key	Id

Sr.No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store User id
2	address	varchar(225)	Not null	It is store User Address
3	contact	varchar(10)	Not null	It is store contact of User
4	Date_of_birth	date	Null	It is store date
5	email	varchar(225)	Not null	It is store email
6	gender	varchar (225)	Not Null	It is store gender of customer
7	Password	varchar(225)	Null	It is store password
8	role	varchar (225)	Not Null	It is store role
9	User_name	varchar(225)	Null	It is store user_name

emidetails Table:

Table Name	emidetails
Description	This table is provide the information about customer
Primary Key	Id
Foreign Key	Loan_details_Id

Sr.No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	bigint(11)	Primary Key	It is store emi id
2	amount	double	Not null	It is store amount of User
3	emi_left	int	Not null	It is store emi left
4	emi_paid	int	Not null	It is store emi_paid
5	intrest	double	Not null	It is store interest
6	Late_fees	double	Null	It is store late fee
7	Next_date	date	Null	It is store next date of emi
8	Loan_details_id	bigint	Null	It is store loan_details_id

Loan Details Table:

Table Name	loan_details
Description	This table store information about loan details
Primary Key	Id
Foreign Key	customer_id

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	bigint(11)	Primary Key	It is store id
2	Adhar_card_number	Varchar(225)	Null	It is store adharcard number
3	amount	double	double	It is store amount
4	Date_of_approval	Date	Null	It is store date of approval
5	Employement_type	Varchar(255)	null	It is store employment type
6	Loan_type	Varchar(255)	Null	It is store loan type
7	status	Varchar(255)	Null	It is store status of loan
8	Tenure_in_month	Varchar(255)	Not null	It is store tenure in the month
9	Update_date	date	null	It is store update date
10	Customer_id	bigint	null	It is store customer_id

Payment Table:

Table Name	payment
Description	This table store information about payment
Primary Key	Id
Foreign Key	Loan_details_id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It store id
2	amount	double	Null	It store Description of amount
3	Late_fees	double	null	It store late_fees
4	Payment_date	date	null	It store payment date
5	Scheduled_date	date	null	It store scheduled date
6	Loan_details_id	bigint	null	It store loan details id

Hibernate_sequence Table:

Table Name	Hibernate_sequence
Description	This table store information about hibernate_sequence
Primary Key	Id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	bigint(11)	Primary Key	It is store id

Conclusion:

This is the system for the provide virtual platform to the loan application . and also track the progress of your application . The requirement of documents that provided by the customer should be verified by the Authorized faculty. Admin have functionality to approve and reject the loan application . this system reduce the efforts for the visit the bank physically.

Future Scope:

In future this system can also be added with additional feature like Online Payment Gateway, Online Booking for document verification and set the reminder of EMI also with penalty details payment.