INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"LOAN MANAGEMENT SYSTEM"

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Submitted By:

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Project Guide

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1. INTRODUCTION.

Introduction:

A Online Loan Management System which is easy better and quick for everyone. The main purpose of developing this project is to provide a complete solution to all the problems that we face in a banking system. This system is designed to easily maintain the data of the loan customers specifically. This system is made to keep the records about the customers who have taken a loan from a bank. Even customer can apply for new loan accounts through online. This system allows customers to make payment through online.

Problem Statement:

There are many problems found in the todays portal system. With offline loans, especially when you approach an external agent for a personal loan, there is the risk of misinformation, inadequate information, and bias. The agent might try to push for products that benefit them. In case of an online loan, you don't have to rely on another person. You conduct all the research yourself. You can easily compare loans and calculate EMIS on the official websites of lenders. You can do everything your way.

Aims and Objective:

Loan Management System is develop to manage loan activity through the web application. It provides support to all roles including Admin, Customer, Loan Officer/Field officer. Here, Admin's responsibility is to view customers, Loan officers, Field officers, and so on. The customer's role is to add a request for a loan. The Loan officer's responsibility is to verify the loan request, and so on:

- Simple database is maintained.
- Easy operations for the operator of the system.
- User interfaces are user accommodating and attractive; it takes very less time for the operator to use the system.

2.OVERALL DESCRIPTION.

Proposed Methodology:

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.

Operating Environment:

Server Side:

Processor: Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

RAM: Minimum 4GB

OS: Windows 10, Linux 6

Database: MySQL

Client Side (minimum requirement):

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 2GB

OS: Windows 7, Linux

Design and Implementation Constraints:

- The application will use JavaScript, jQuery and CSS as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- SMTP protocol is used for Email communication.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Loan Management System is a web-based application, internet connection must be established.
- The Loan Management System will be used on PCs and will function via internet or intranetin any web browser.

3. Requirements Specification.

External Interface Requirements:

User Interfaces:

- All the users will see the same page when they enter in this website. This page asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.

This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces:

Web Browser:

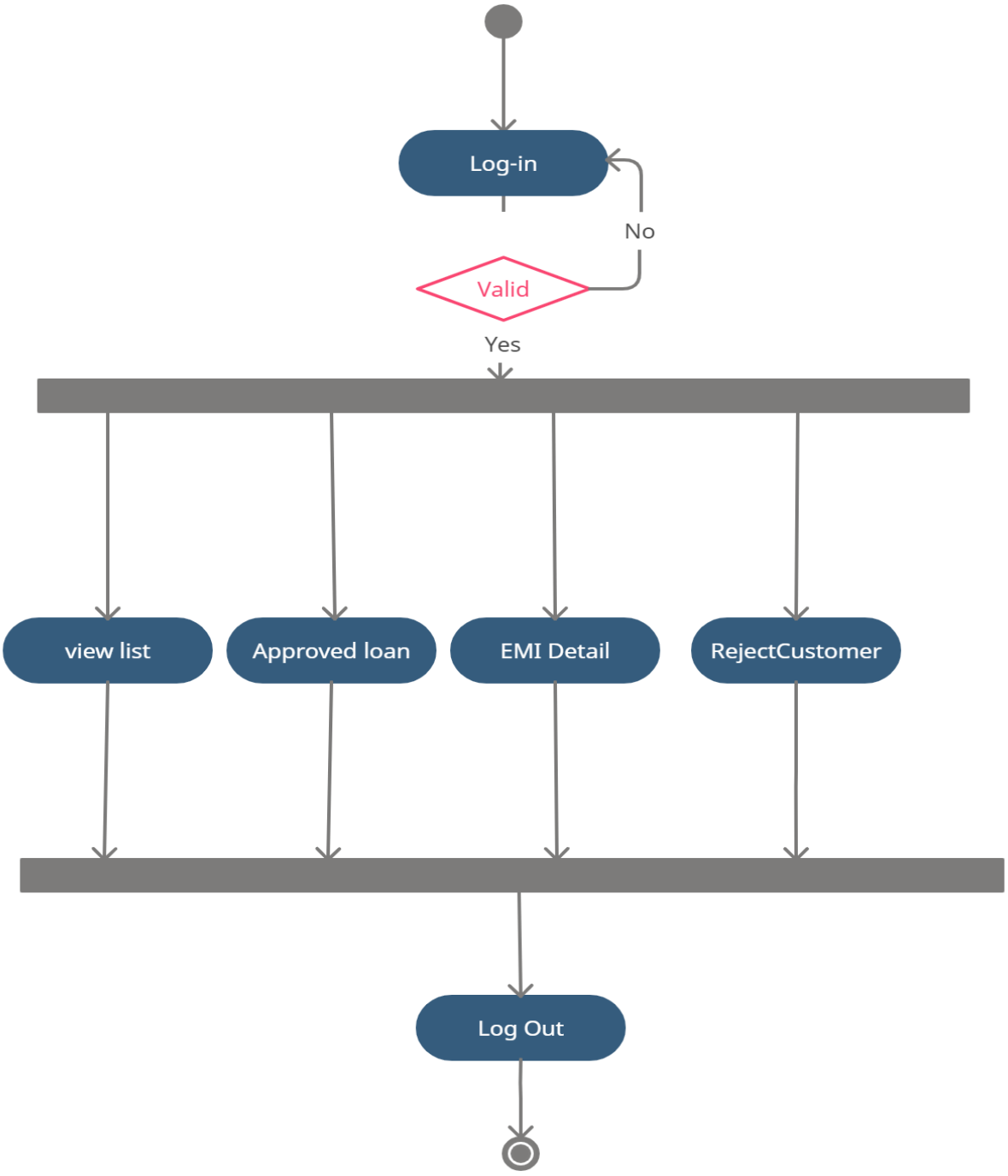
The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

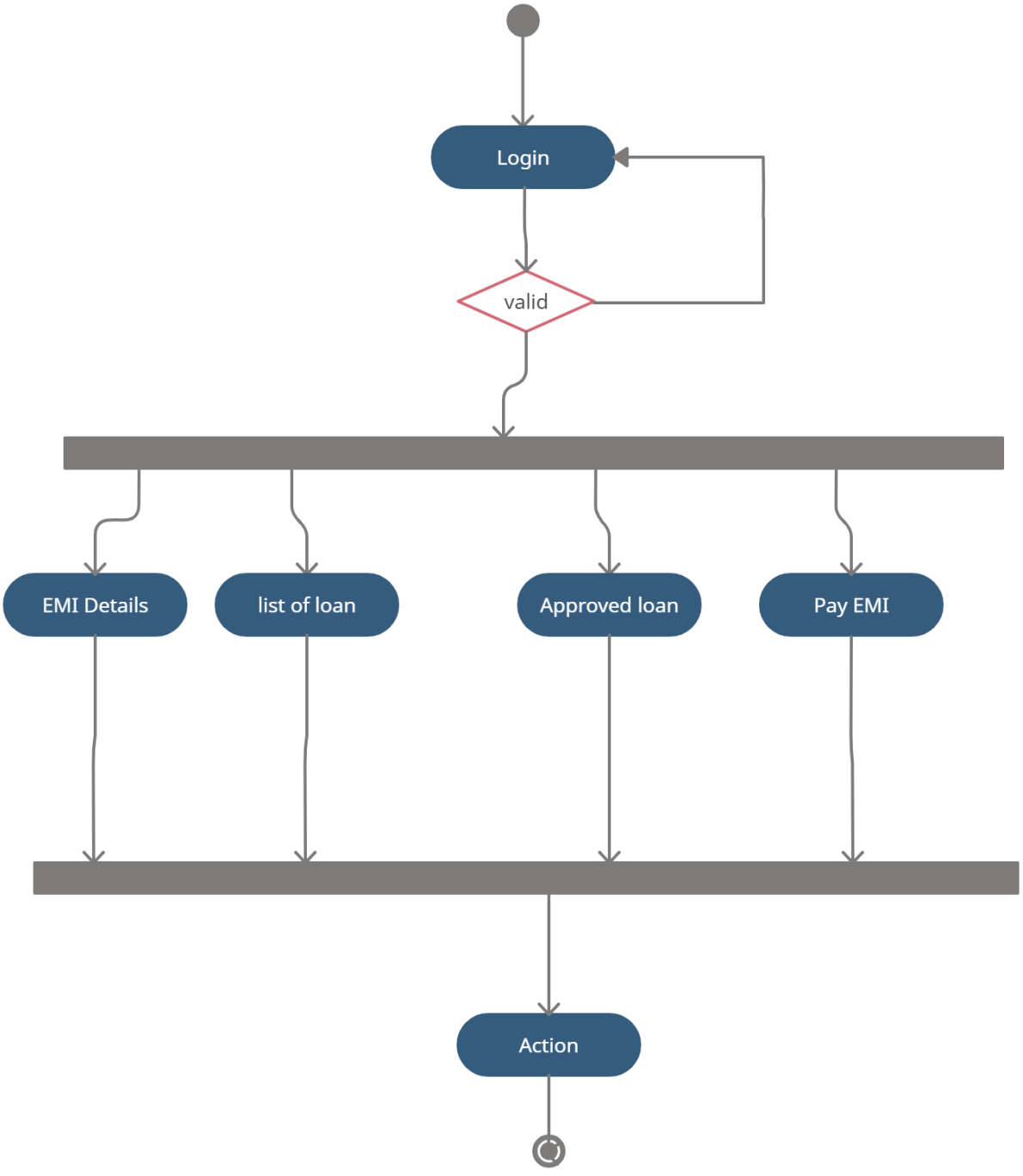
- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the booking information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.

4. System Diagrams.

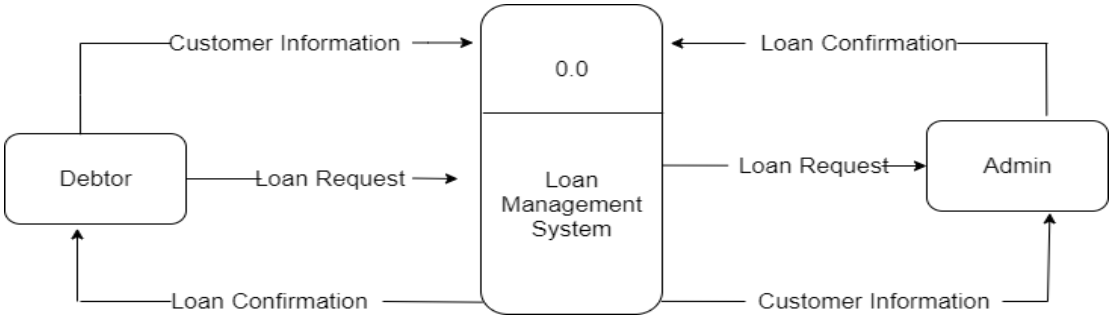
- **Activity Diagram:**
  - Admin Activity:



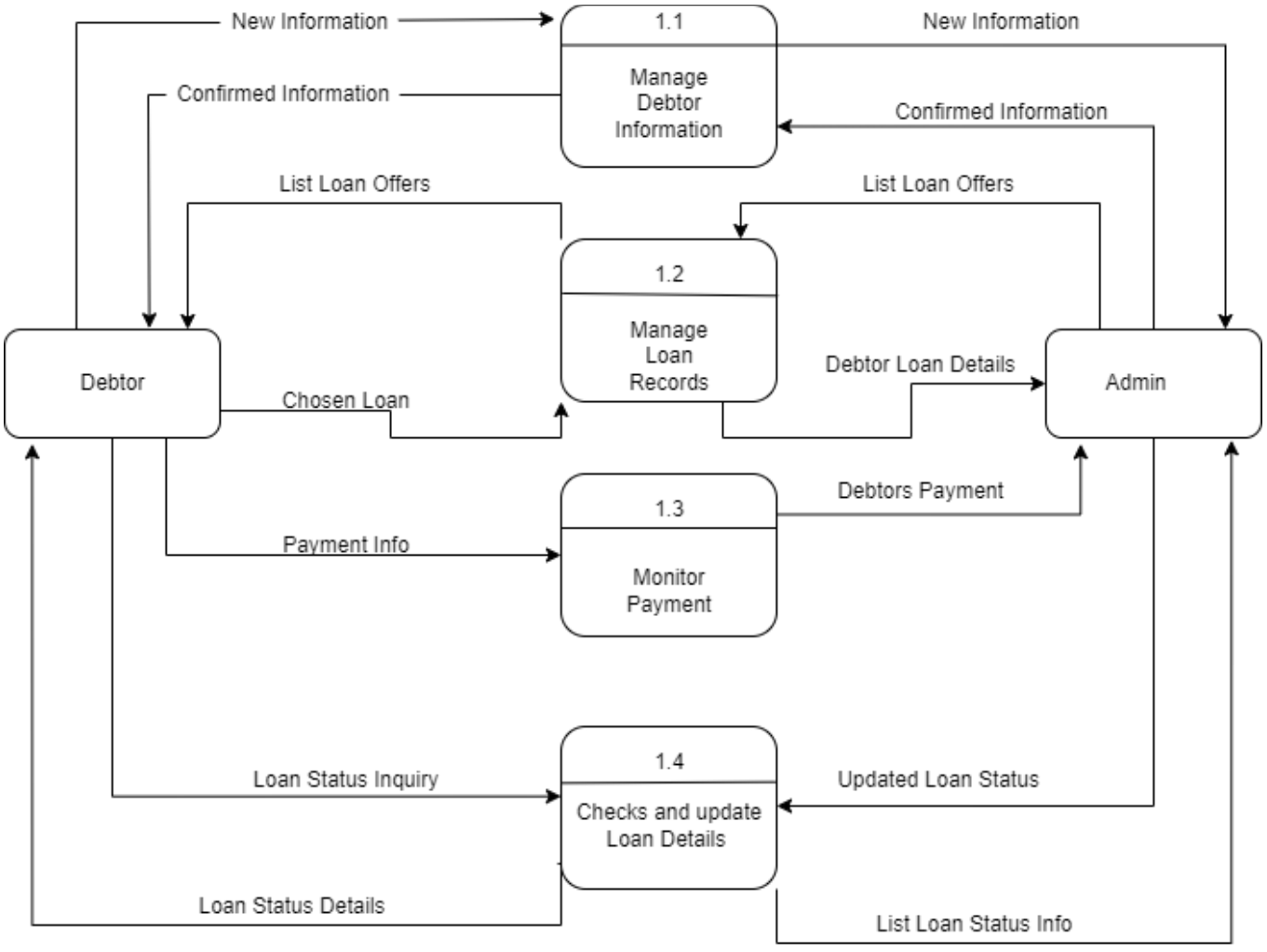
- Customer Activity:



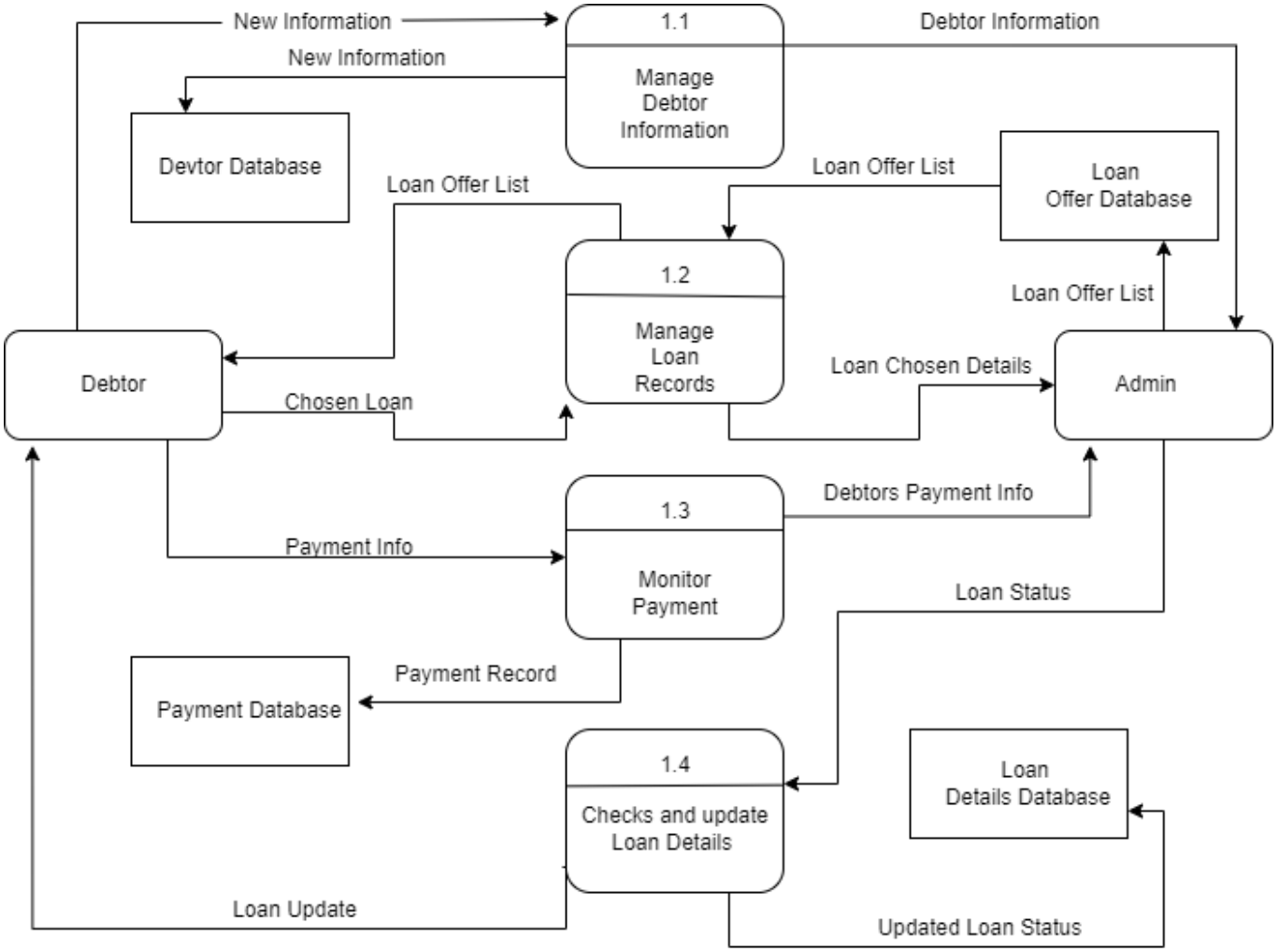
- **Data Flow Diagram**



Data Flow Diagram Level 0



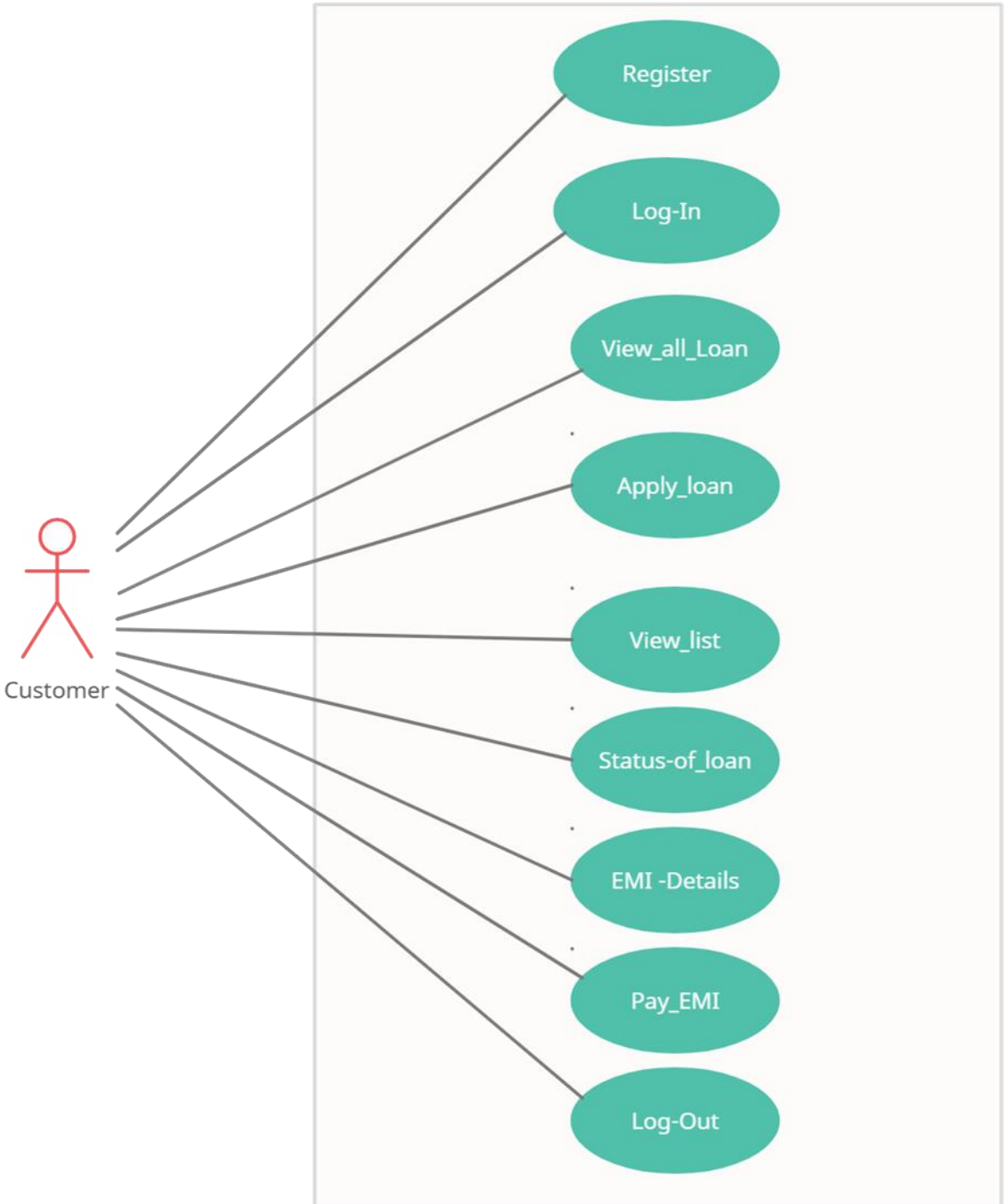
Data Flow Diagram Level 1



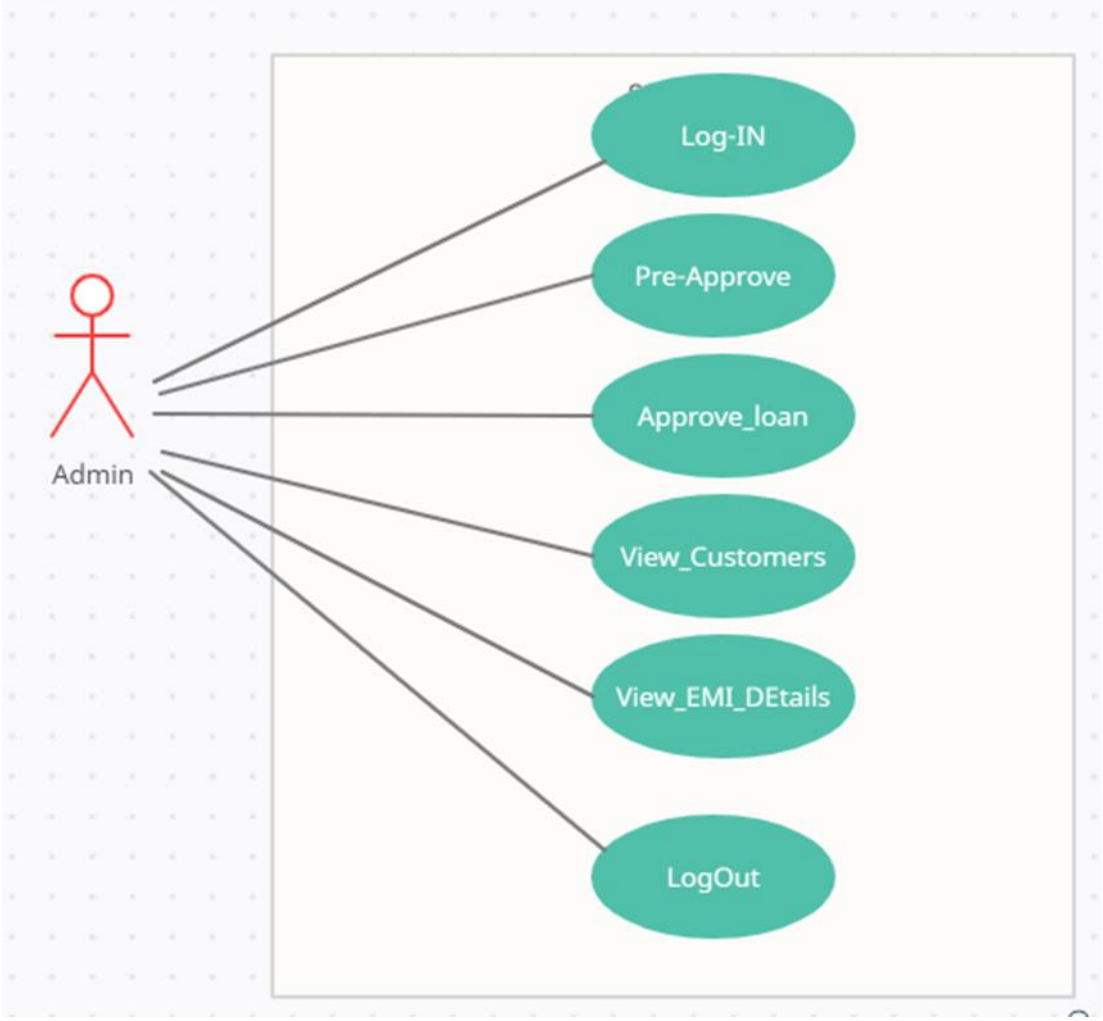
<u>Data Flow</u> Diagram Level 2

- **Use Case Diagram :**

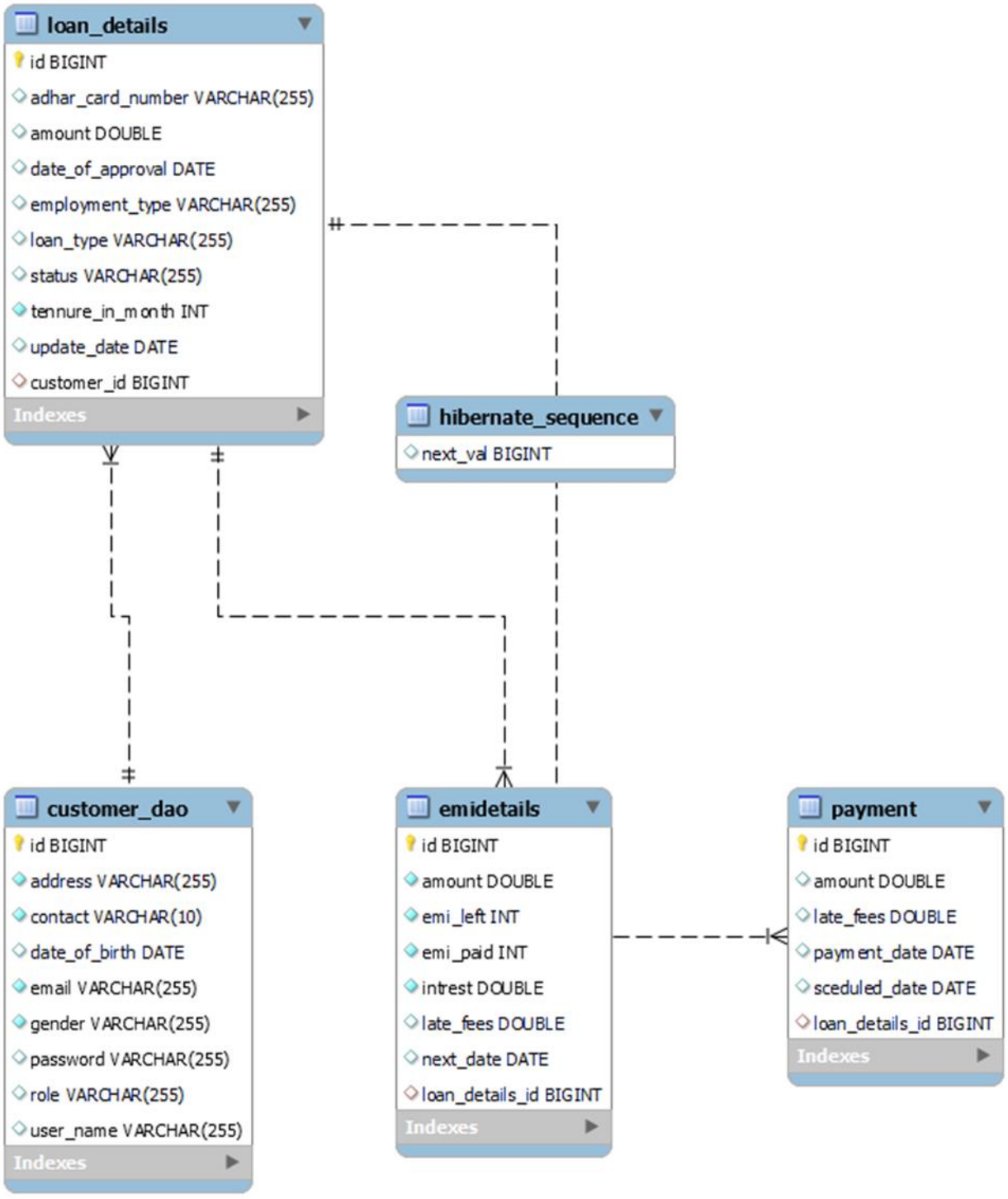
  - User Use-case:



- Admin Use-case:



- **ER Diagram:**


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

5 Table Structure.

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

6 Conclusion.

The entire project has been developed and deployed as per the requirements stated by the bank agents consultancy, it is found to be bug free as per the testing standards that are implemented. It helps Bank Agents and Customers of Lending Tree and provides effective communication between them to provide the services very promptly with proper procedures. Any specification-untraced errors will be concentrated in the coming versions, which are planned to be developed in near future. The system at present does not take care payments info through this application since it requires payment gateway. Our company is planning to integrate in future and do it as an enhancement

- **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.

7 Refrences.

- "ONLINE LOAN MANAGEMENT SYSTEM", International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol.7, Issue 5, page no.17-23, May-2020
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- S. Dhar and I. Bose, "Smarter banking: BLoCkchain technology in the Indian banking system", Asian Management Insights, vol. 3, pp. 47-52, 2016.