



## Loan Management System

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## 1.1 INTRODUCTION:

### Loan Management System (LMS)

It is basically an online application that helps in the process of organizing loan management for client and institutions When the client or the beneficiary takes a loan or his loan from the institution, the institution shall sign the contracts Login to the site and registration as an institution and then enter the data of the beneficiaries and give them a user name and password,

Then the customer can see his file within the institution and know the amounts paid and the amounts remaining And the installments that are plagued by it without the need to go to the institution and also can apply for a new loan and so the customer service within the system ,

And the institutions benefit from the system to get full access to the files of customers and knowledge of customers defaulting on payment and inclusion in a special lis You can also view and provide loans to new loan applicants from the same clients With the services provided by the site to customers and institutions we achieved the goal of the site and save time and effort

## 1.2 Problem Statement

Given that the changes that have taken place in the world and in Saudi Arabia as well, we found that paperwork is inconvenient way to record data.

Most loan providers still use the old fashion, where they record all the details on the papers. No online service.

For example, when a customer wants to know the remaining amount, he needs to go to in person or contact the provider. Then, the provider representative has to review the customer details manually and calculate the remaining amount.

Unfortunately, this method is a waste of time, inaccurate and inefficient. The loan receiver sometimes could argue about missing data, such as an installment that is missing and is not being recorded.

Here comes the idea of the project.

### **1.3 Research Goals:**

The objective of this study is to develop distinguished institutions within the Kingdom of Saudi Arabia and organize loan management. There are many goals and focus :

- 1- Saving time and effort
- 2- Eliminate the use of paperwork for transactions
- 3- Customer's vision towards the organization
- 4- And full customer access

### **1.4 Importance of the study:**

There are several loan management systems, from the traditional methods of paper and pen to electronic record keeping. However, a few of these systems are interoperable and all records are considered the property of the enterprise without the client,

The system (LMS) will help improve communication and flexibility between the parties and the full knowledge of both parties

### **1.5 Scope of the study:**

This study will cover some local institutions in the Kingdom of Saudi Arabia and will be extended in the future to cover all financial institutions in the Kingdom.

## 1.6 Questionnaire summary:



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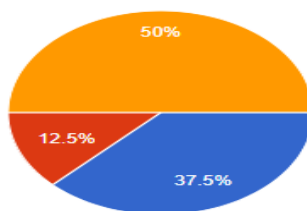
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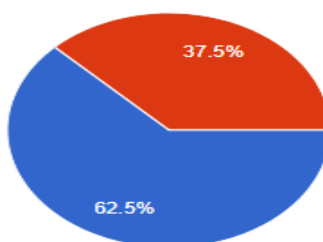
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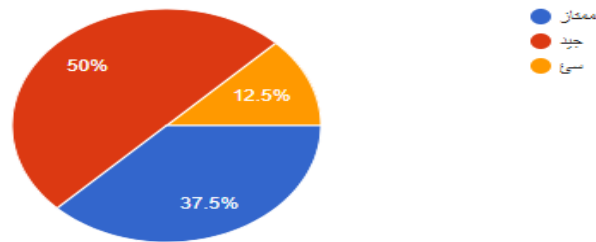


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## 1.7 Project scheduling:

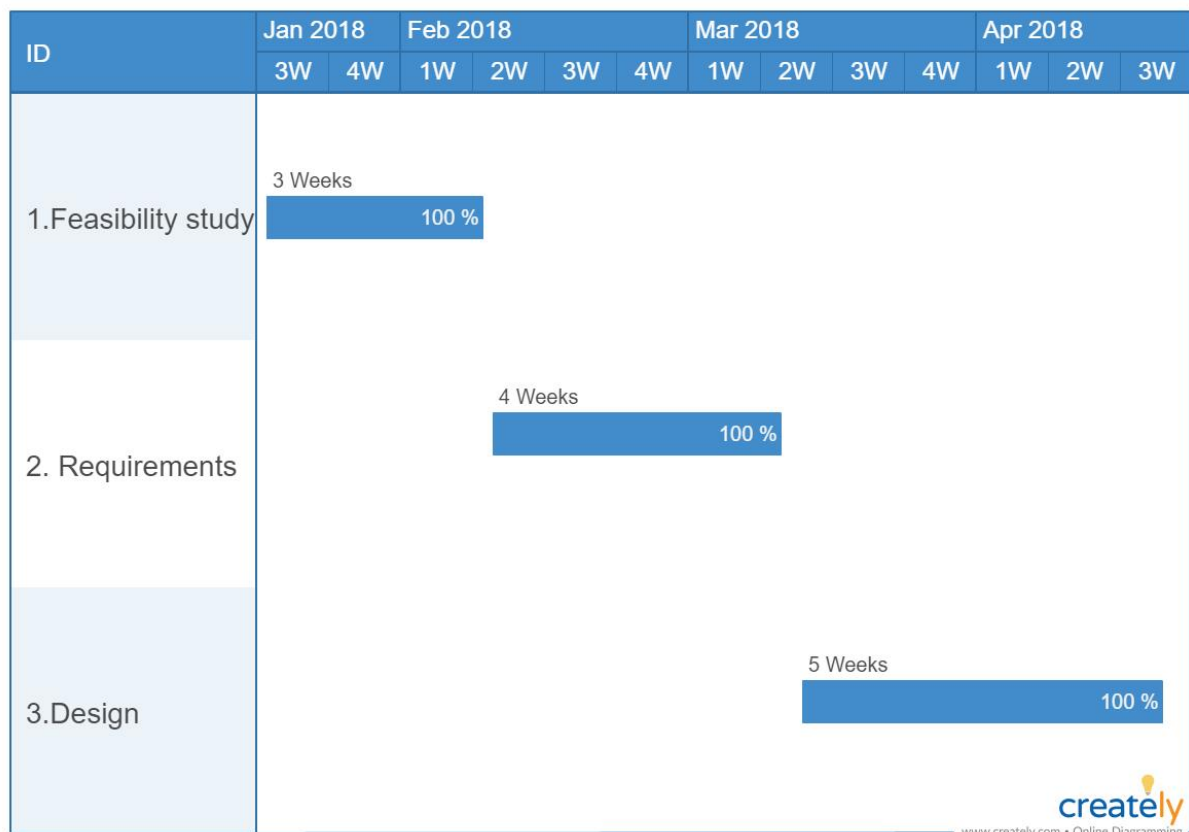


Fig.1.0 Gantt chart

## 1.8 UML Diagram

The client who benefits from the organization enters the website and can view its information  
or submit a new application ‘and the manager of the institution can add new customers’  
delete the complete payment and see the defaulters

Actor	Goal
Customer	<ul style="list-style-type: none"><li>• See your personal account</li><li>• See the data on the system</li><li>• Providing new students</li></ul>
Admin	<ul style="list-style-type: none"><li>• View customer records</li><li>• Add new customer and enter payment data<ul style="list-style-type: none"><li>• Delete a client</li></ul></li><li>• Show defaulters</li></ul>

## 1.9 Use case diagram:

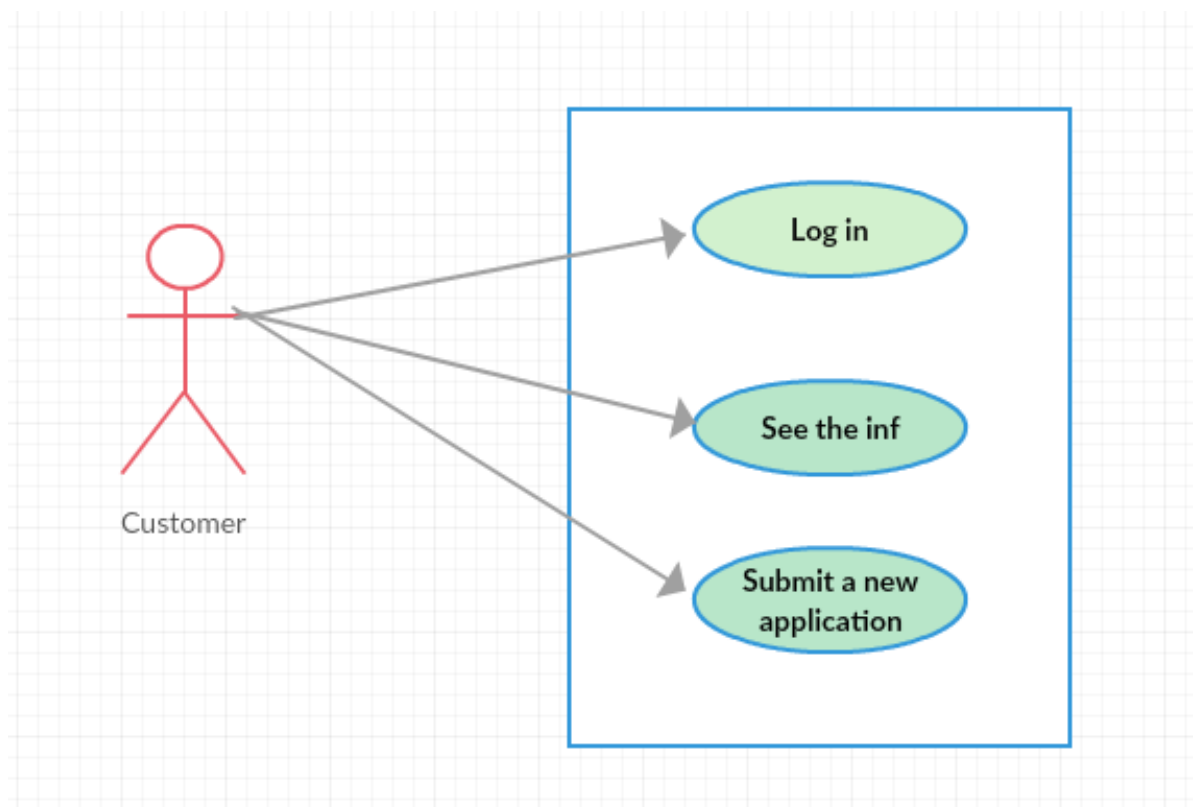


Fig.2.0 customer (Use-case diagram)

## 2.0 Admin Use case

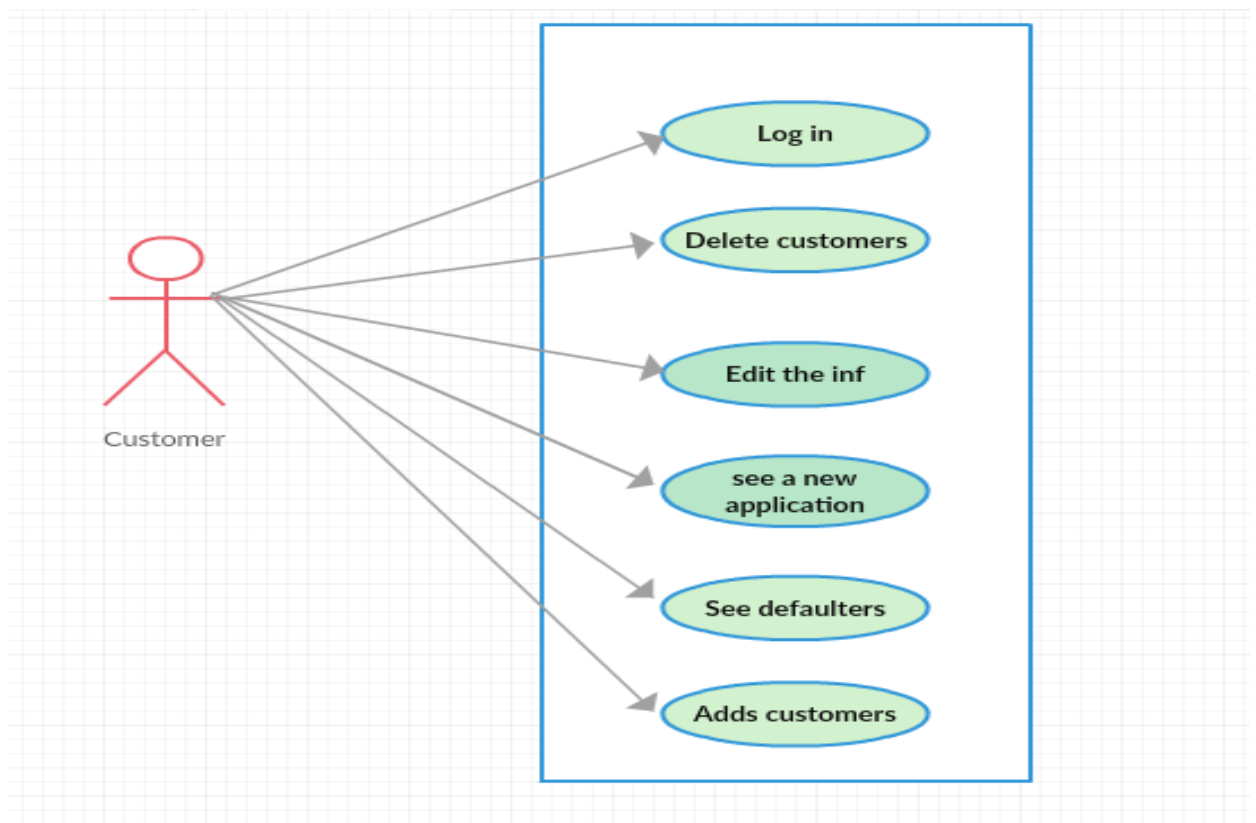


Fig.2.1 Admin (Use-case diagram)

## 2.1 system environment Use case

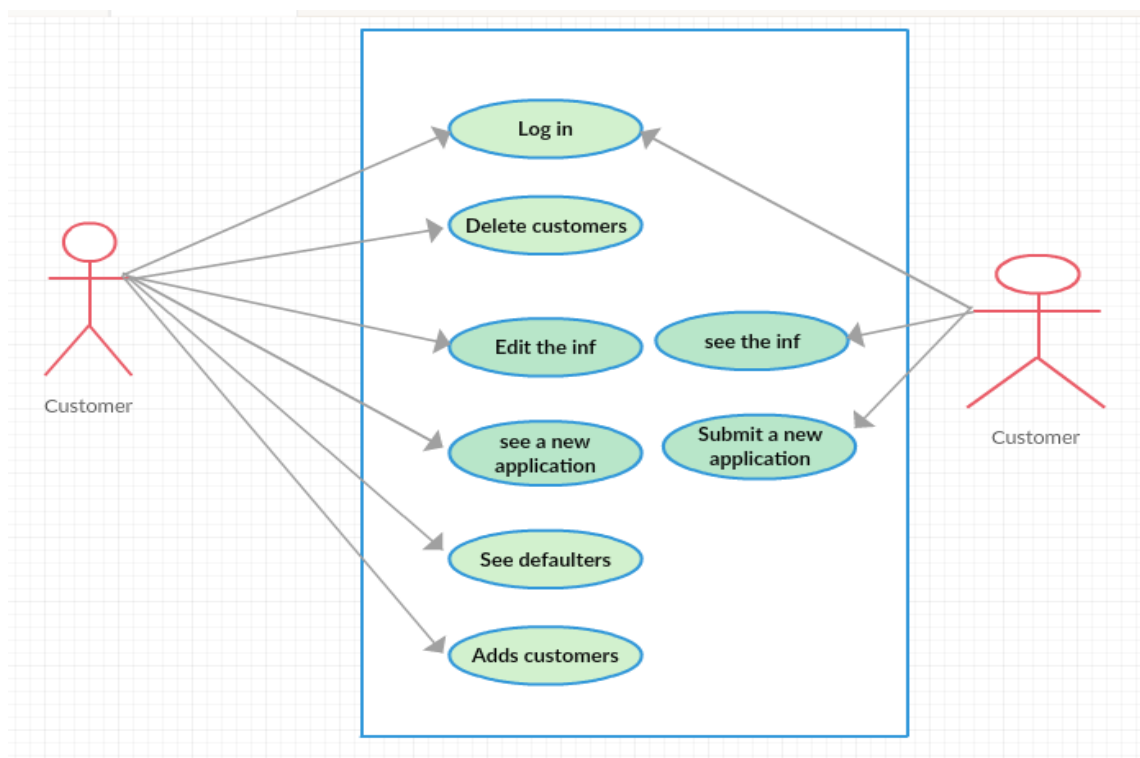


Fig.2.3 system environment (Use-case diagram)

## 2.2 Data Flow Diagram

The customer submits a new application

At this time, the first two operations are to verify the existence of the name within the client file and to check the availability of the budget and then send a report to the management

In turn, the administration opens a file for the client and is added within the client file and then can view the information on it

The admin can delete a client from a client file and then send a report from the client file to the admin

### Data Flow Diagram

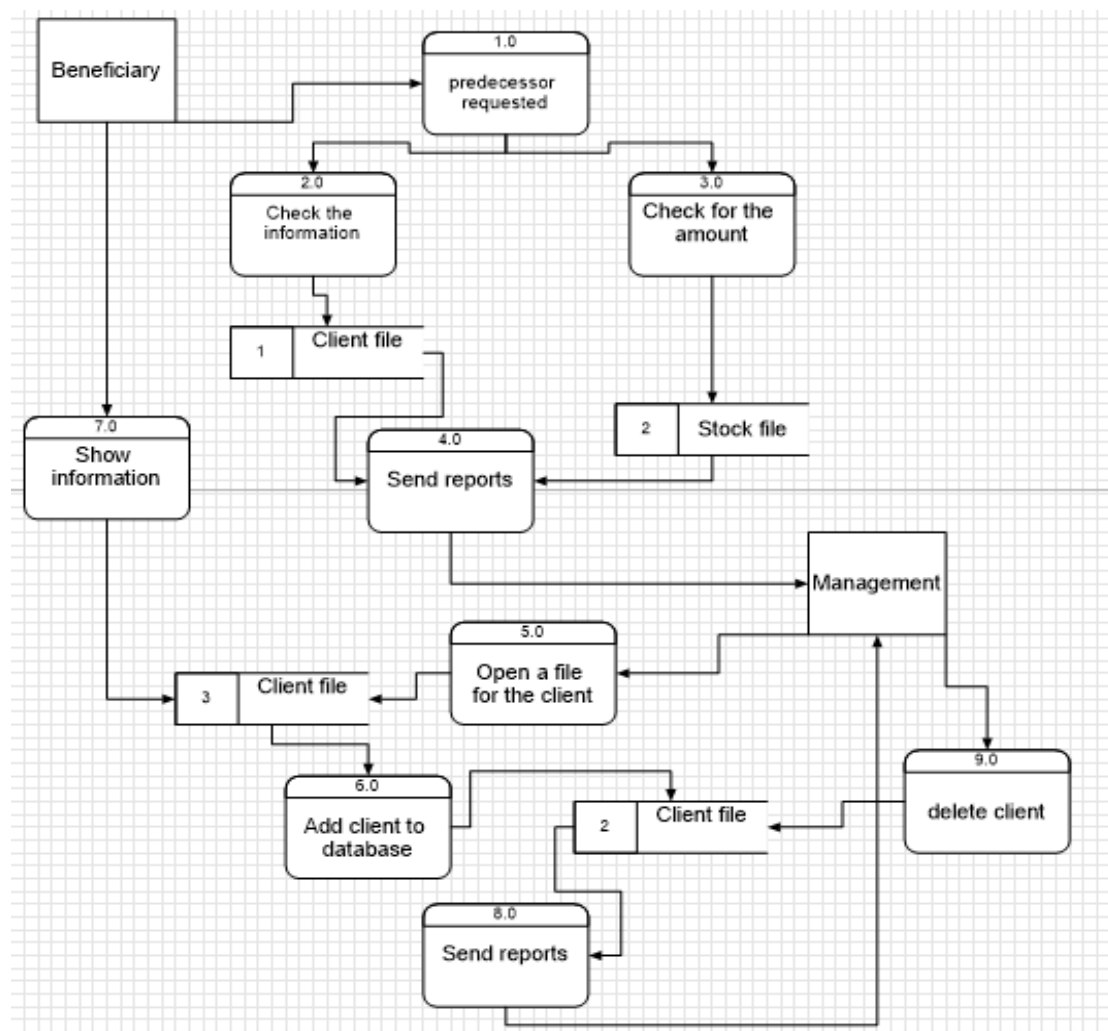


Fig.2.4 system environment (DFD)

### 2.3 At clinet level 0

The client has two processes after entering the system

The first request is from the administration

The second process is seen from the client file

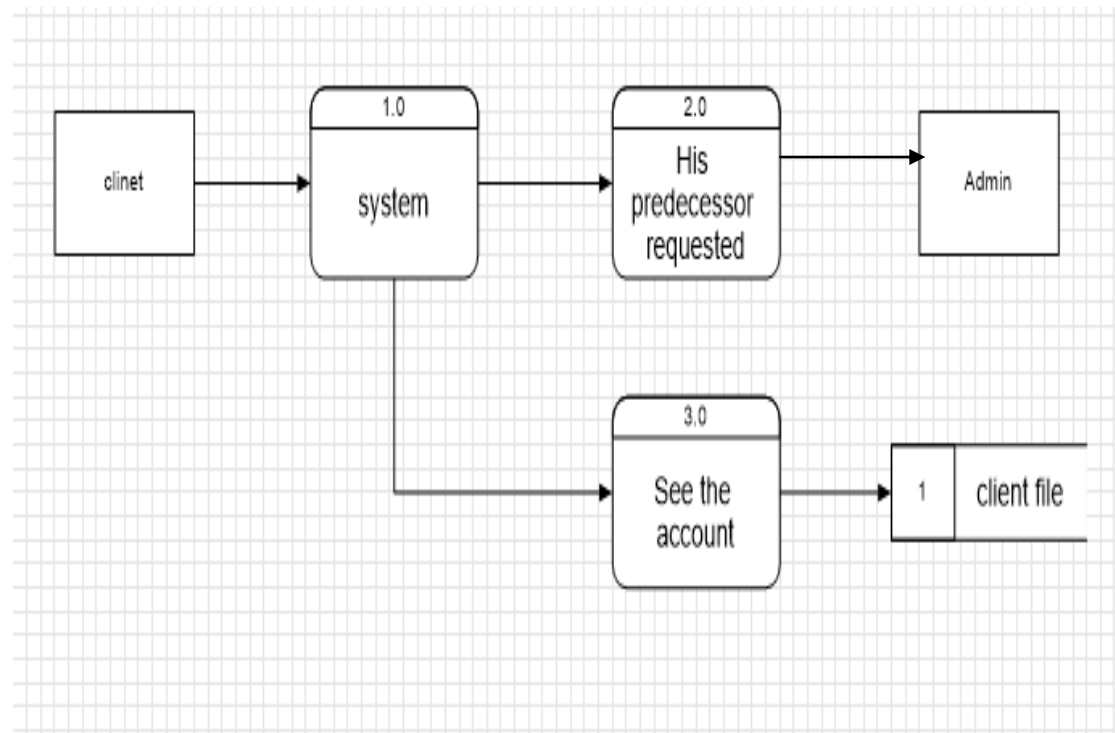


Fig.2.5 clinet leve 0 (DFD)

## 2.4 At Admin level 0

The administration has more than one process to do after entering the system

- 1- Additional customers and deletion of the income of the customer file
- 2 - Modify the information inside the client file
3. Access the client file and the budget file

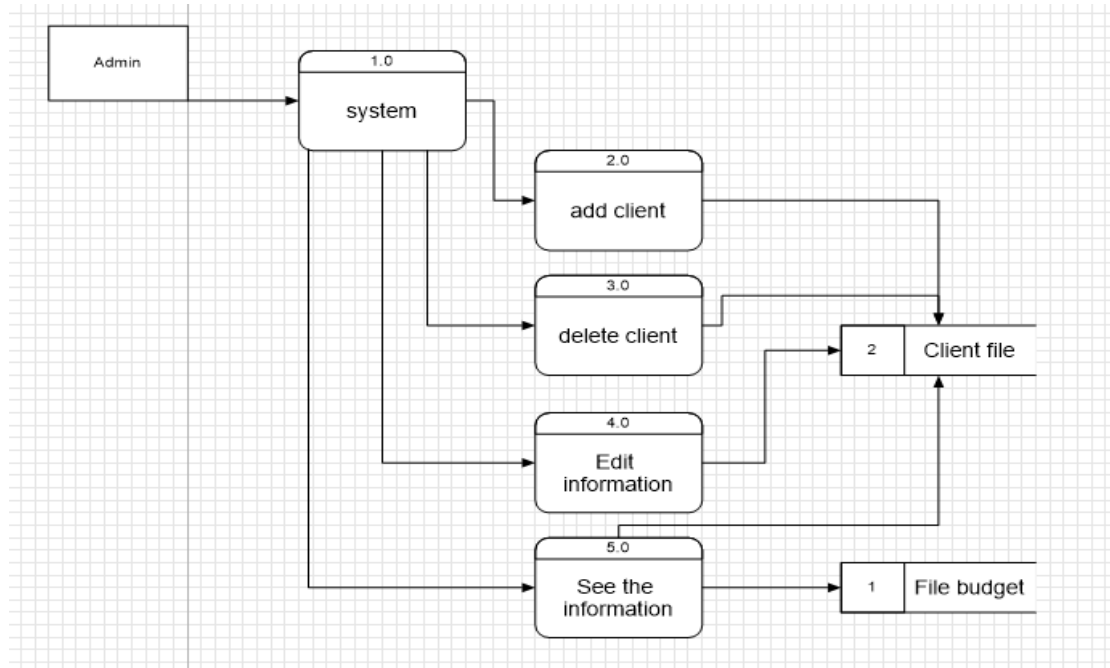


Fig.2.6 Admin leve 0 (DFD)



## Class diagram

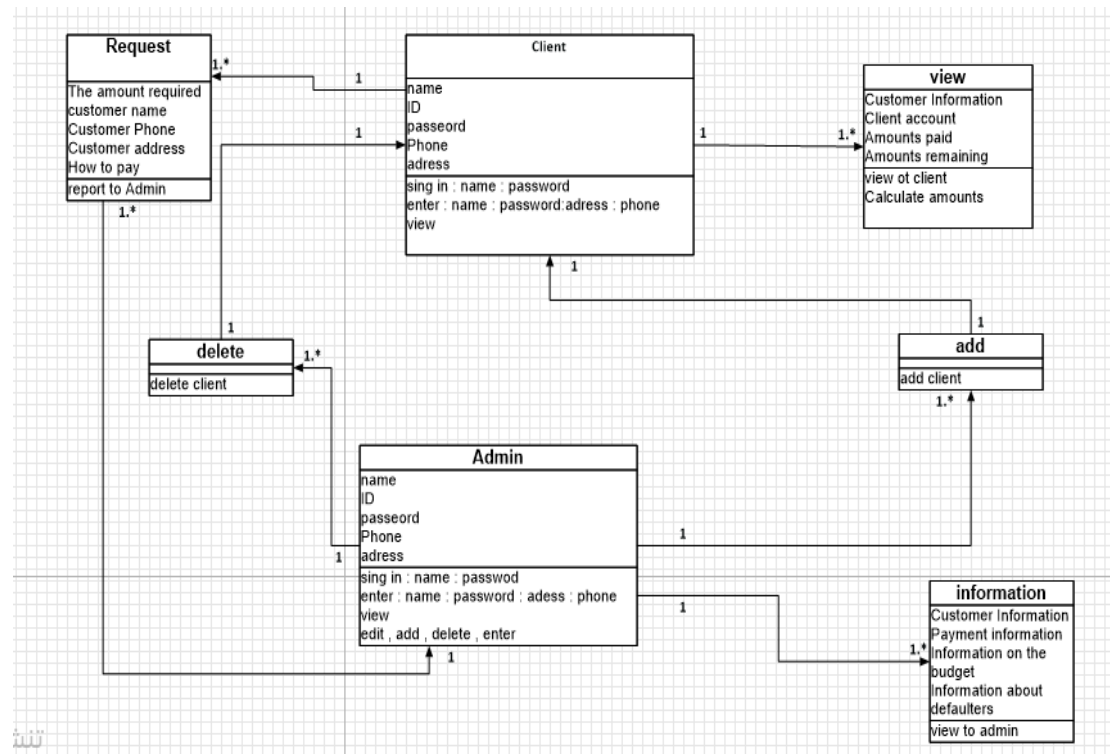


Fig.2.7 Class diagram

## Context Diagram

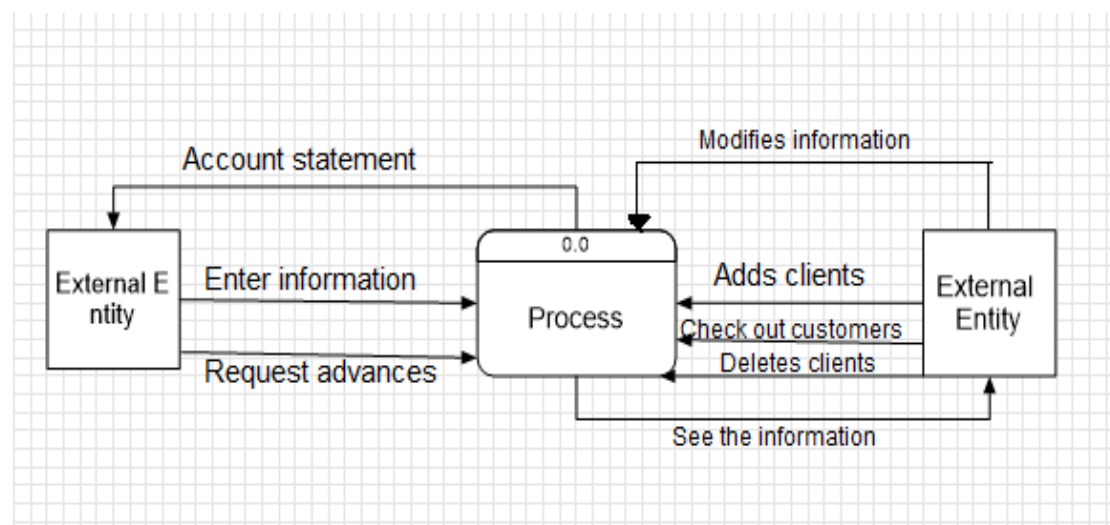


Fig.2.8 Context Diagram

## 2.5 activity diagram

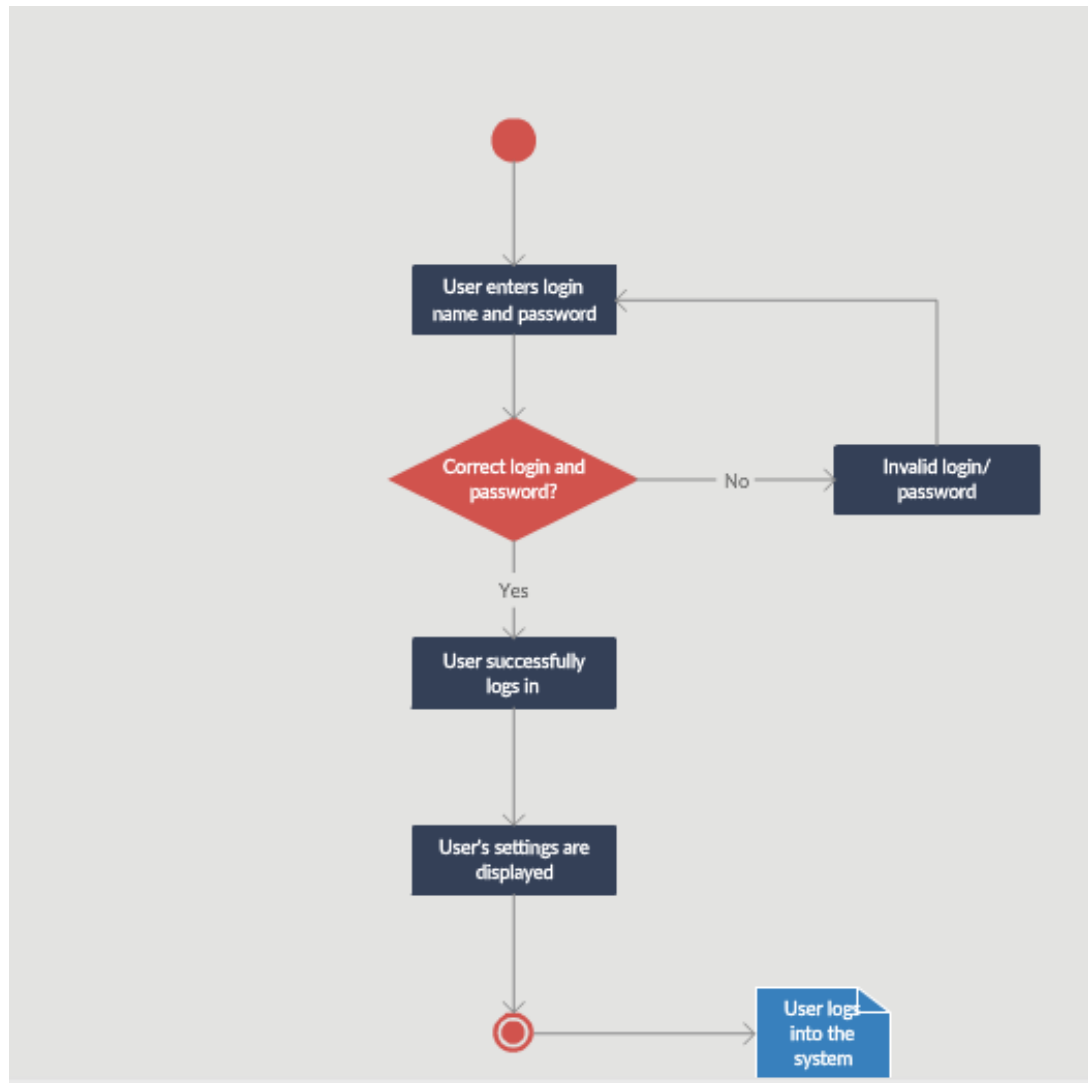


Fig.2.9 activity diagram(log in)

## 2.6 ERD

The customer has a special set of data, consisting of name, ID, address, phone number and password. He can view the available powers of his / her access to his / her information, contract information and information on the amounts and submit a request to the administration

The administration has its own data from the organization's name, ID, phone number, address and password

The management can modify and view the information, modify the customer information, add a customer, delete the client and see the defaulters and see the budget

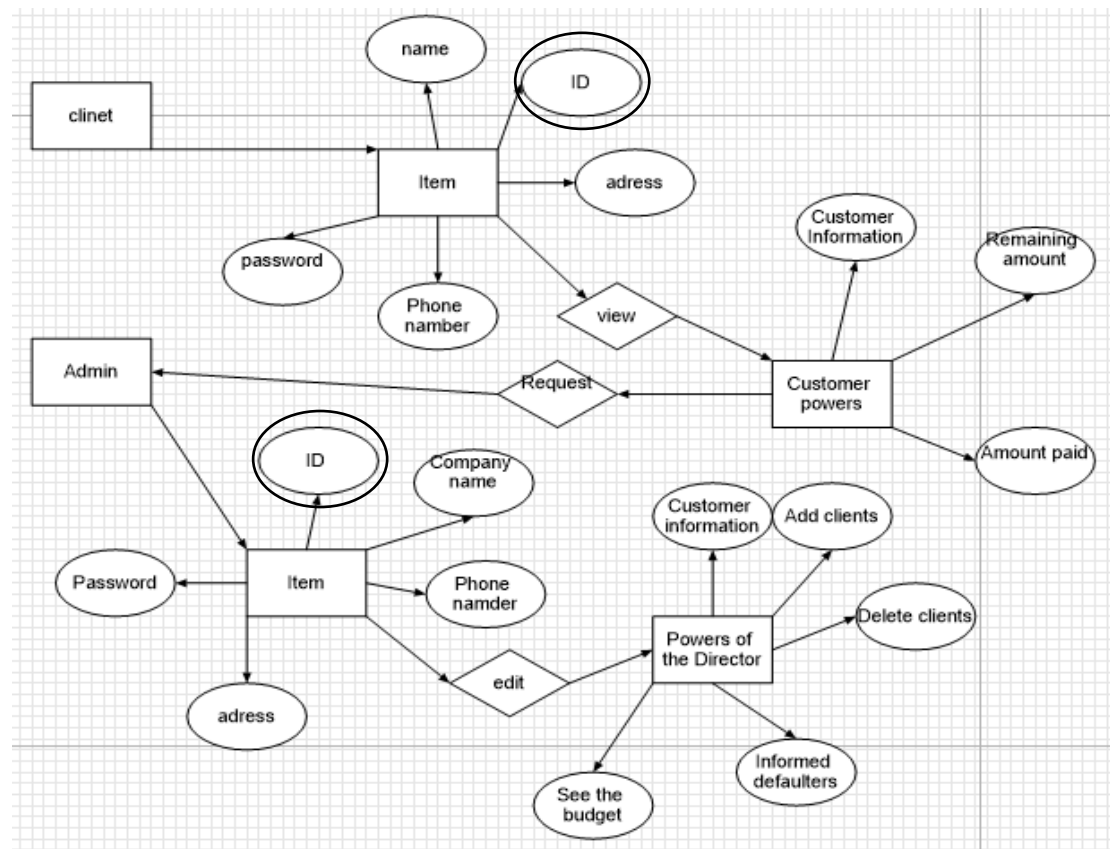


Fig.3.0 (ERD)

## 2.7 sequence Diagram

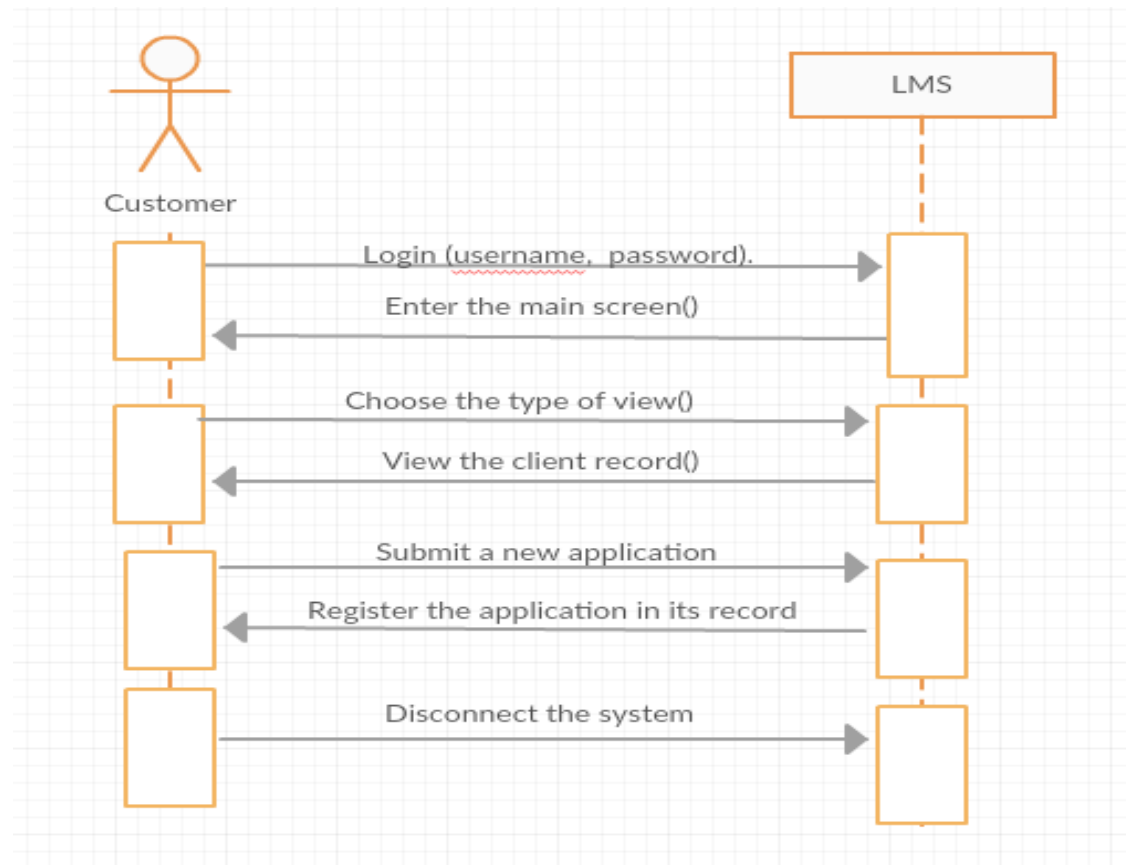


Fig.3.1customer (sequence Diagram)

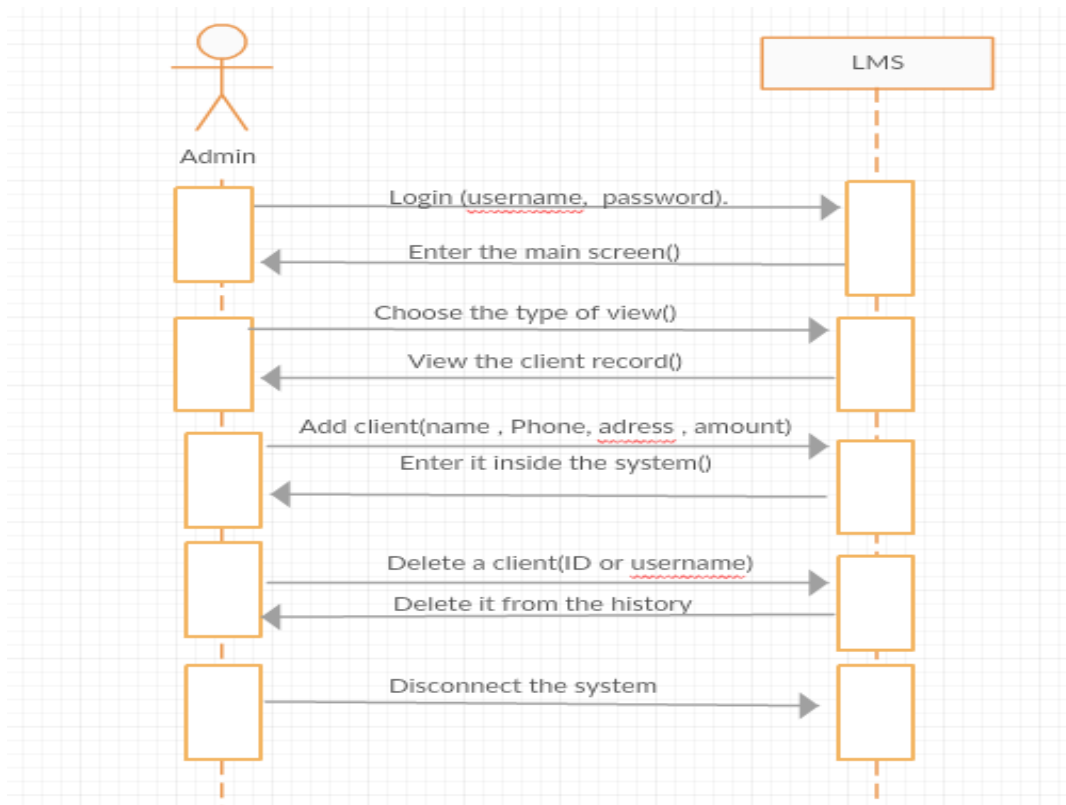


Fig 3.2 Admin (sequence Diagram)

## 2.8 Interface

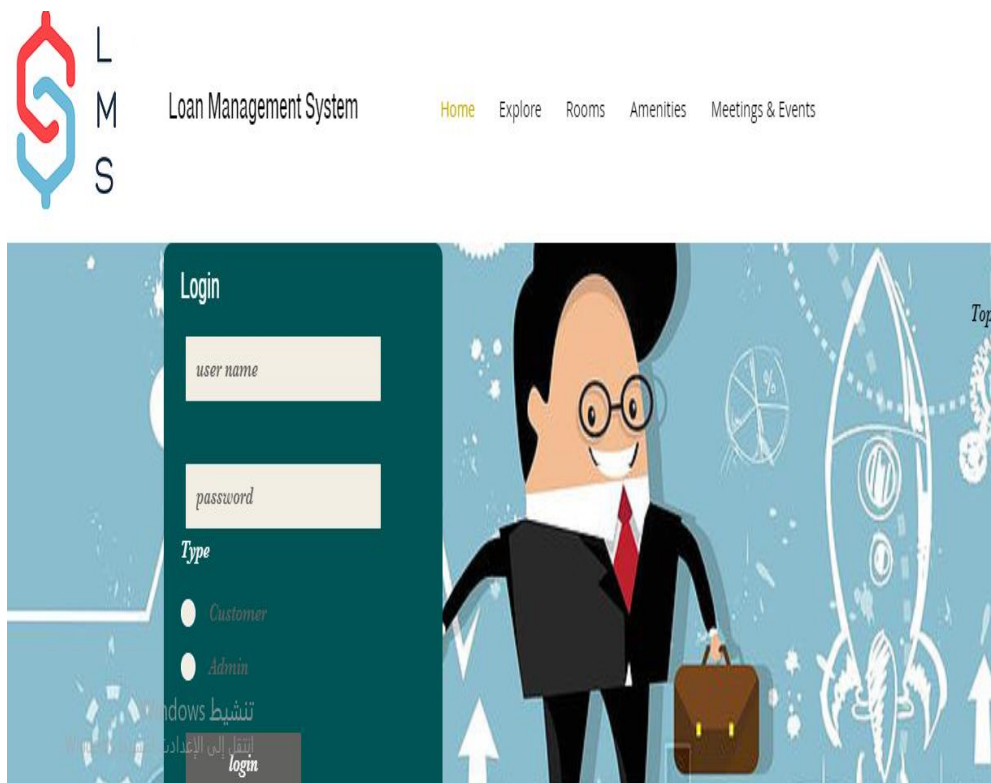


Fig.3.3 long in (interface)

## Reference:

<https://www.bayt.com/ar/career-article-2082/>

<http://ils.com.sa/solutions/%D8%B3%D9%8A-%D8%A2%D8%B1-%D8%A7%D9%85/?lang=ar>

<https://www.mortgagecalculator.org/calculators/mortgage-payment-calculator.php>