



Kingdom of Saudi Arabia
Ministry of Higher Education
Majmaah University
College of science at Az-Zulfi
Department of computer science and information



Loan Management System

CSI Dept. Majmaah university.

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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 list. 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:



هل سيستفيد العميل من النظام؟

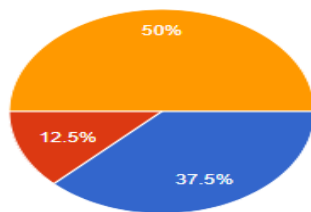
8 ردود



● نعم
● لا

هل تود تطبيق الفكرة؟

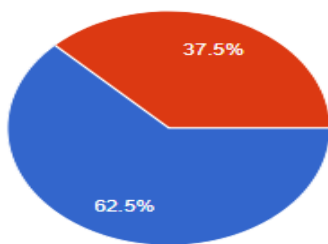
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● نعم
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● ربما

هل ستستفيد المؤسسة من النظام؟

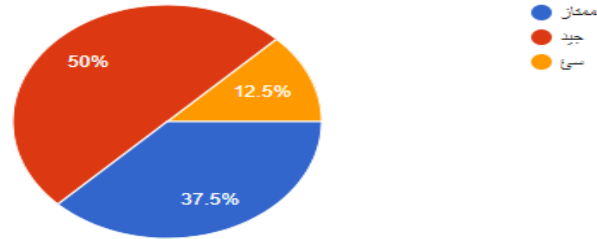
8 ردود



● نعم
● لا

ما رأيك في فكرة المشروع ؟

8 ردود



1.7 Project scheduling:

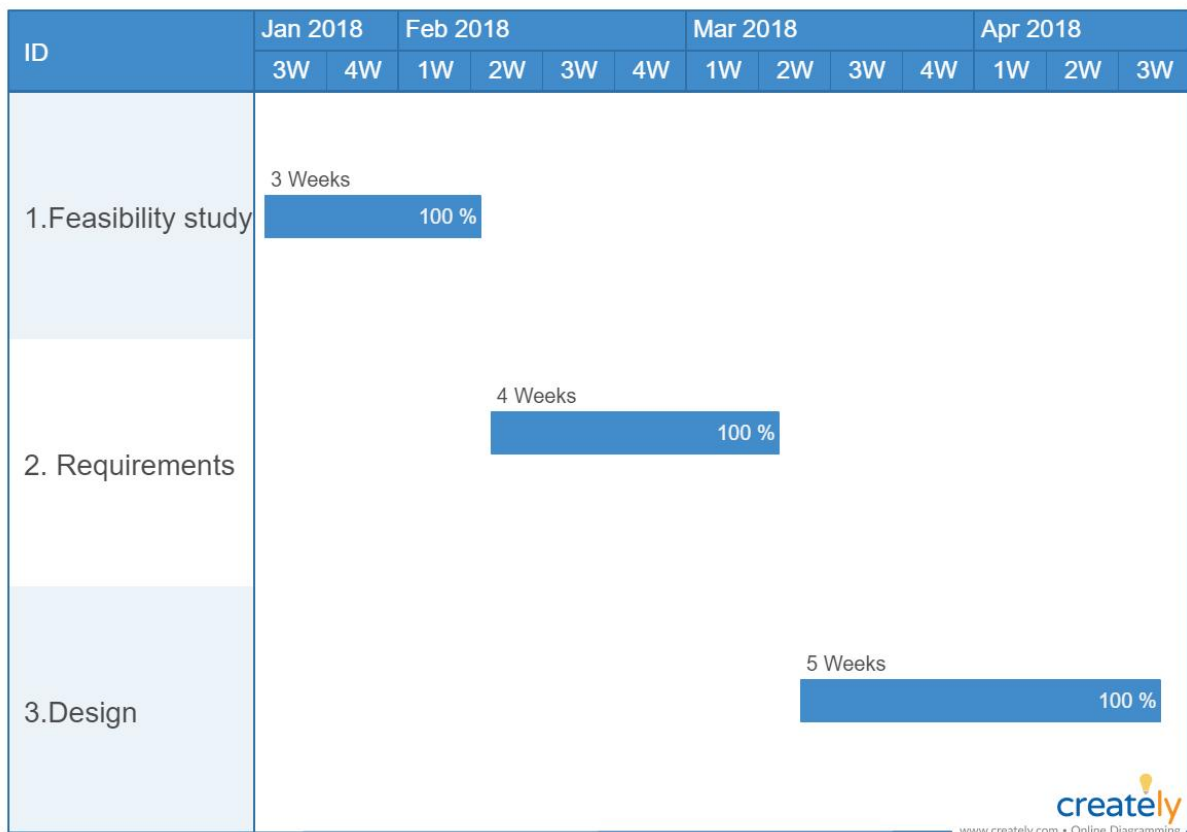


Fig.1.0 Gantt chart

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
client	<ul style="list-style-type: none">• See your personal account• See the data on the system
company	<ul style="list-style-type: none">• View customer records• Add new customer and enter payment data• Delete a client
Admin	<ul style="list-style-type: none">• Add institutions• Add branches• Add cards• Delete and modify

1.9 Use case diagram:

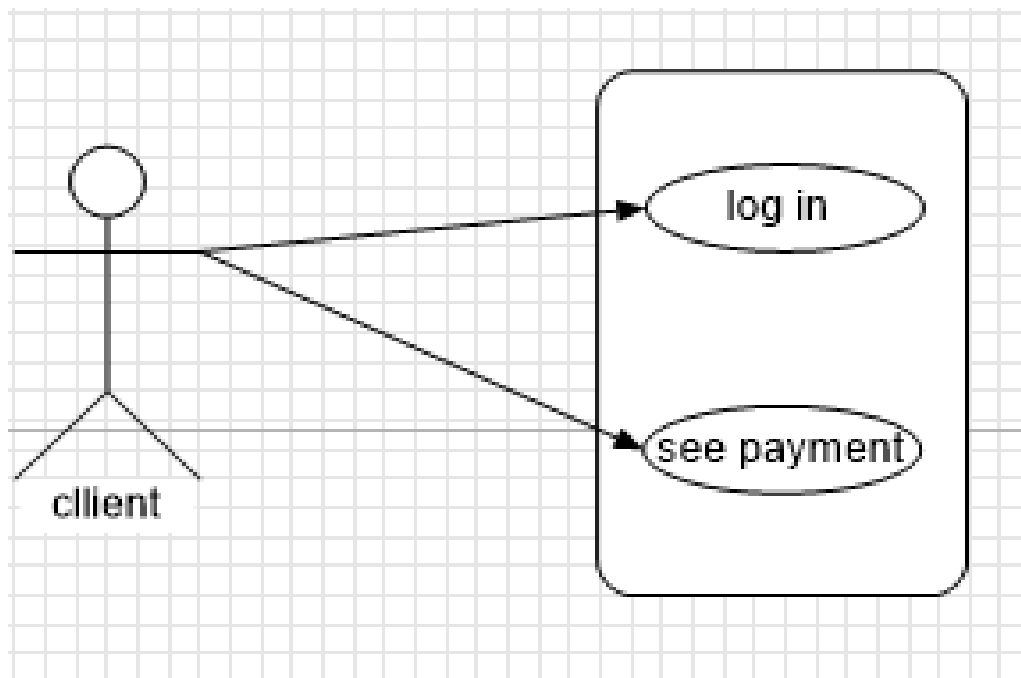


Fig.2.0 customer (Use-case diagram)

2.0 Admin Use case

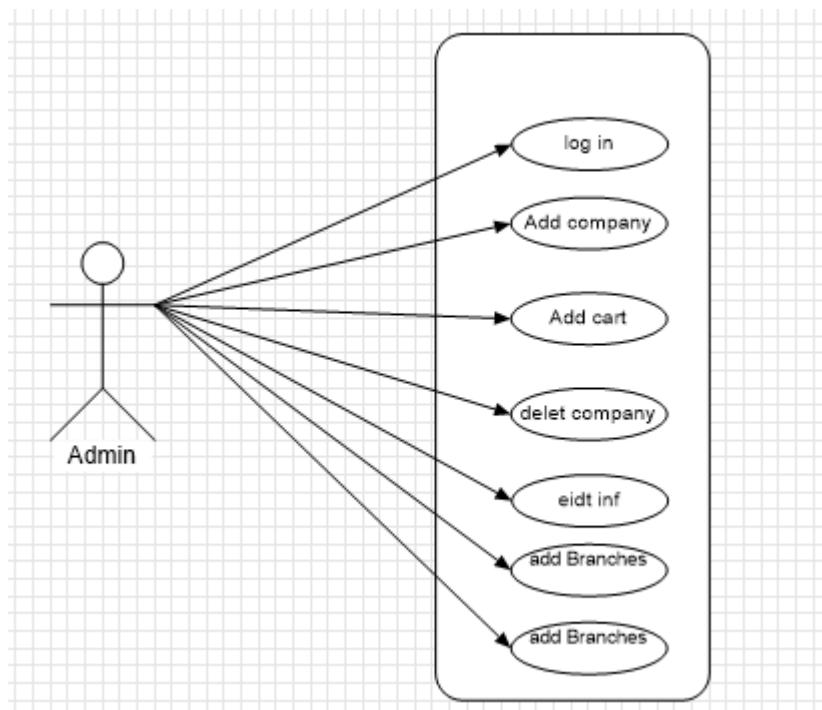


Fig.2.1 Admin (Use-case diagram)

2.1 company Use case

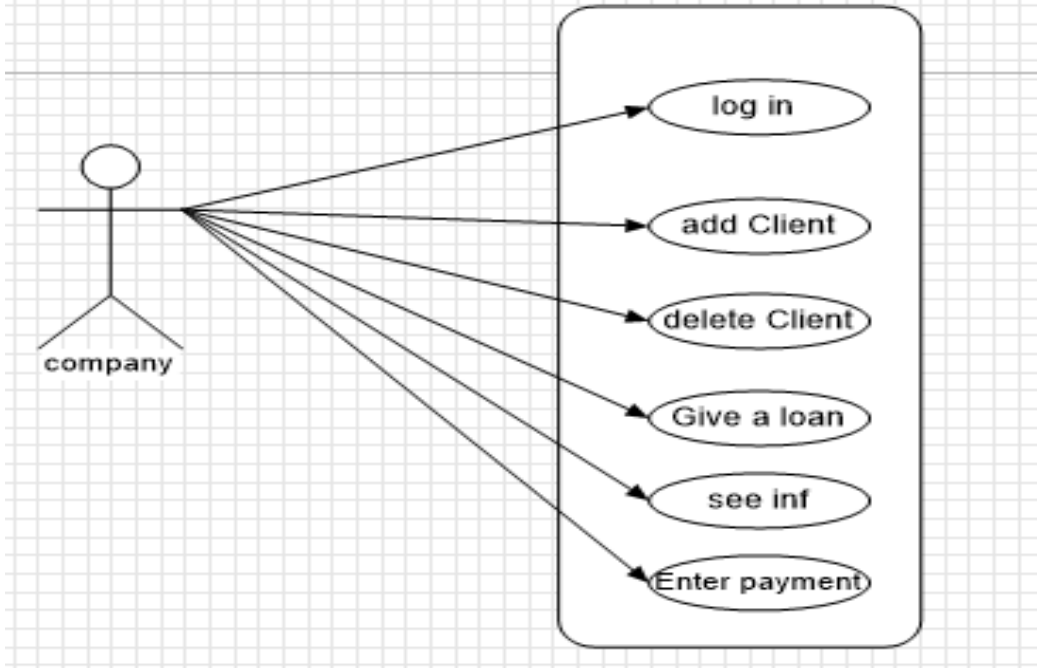


Fig.2.3 company (Use-case diagram)

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

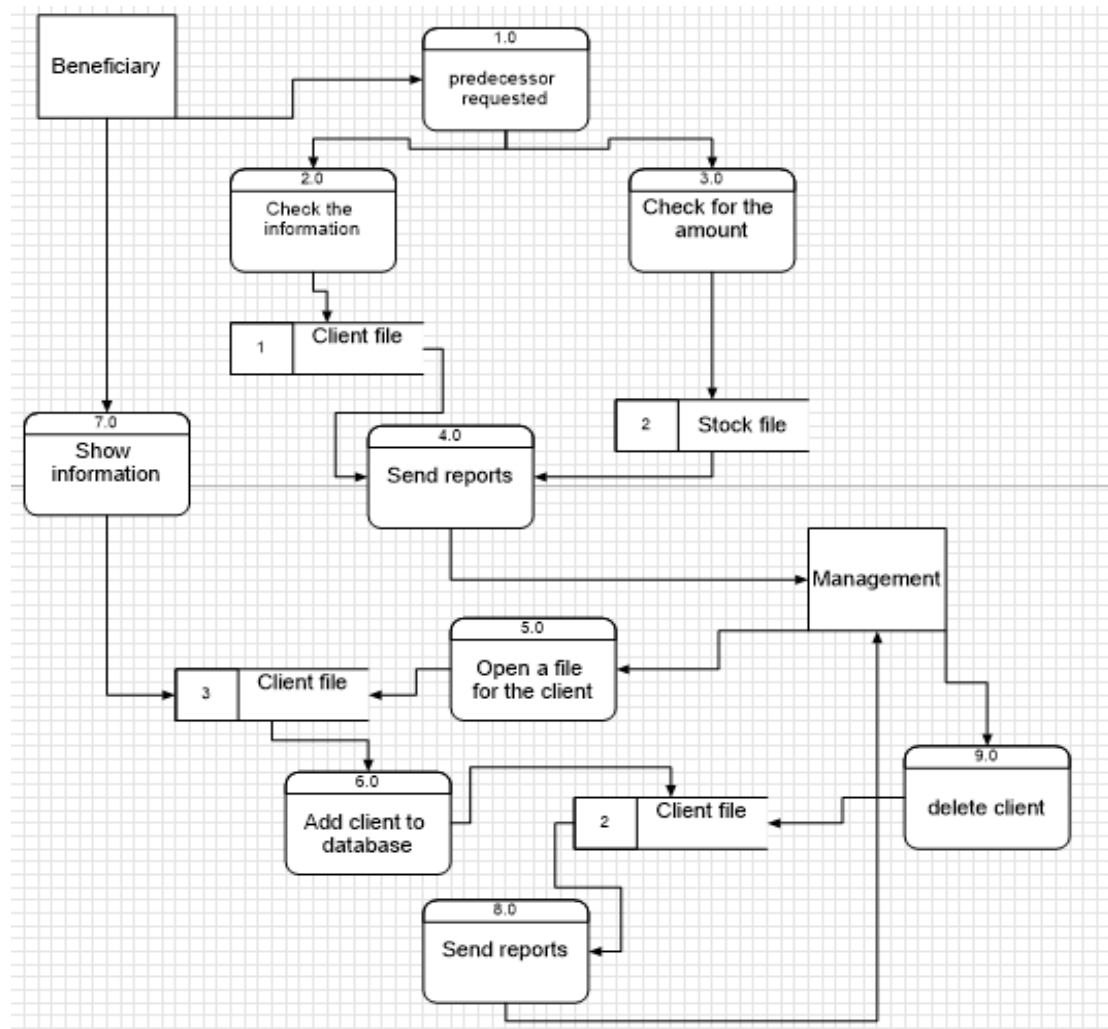


Fig.2.4 system environment (DFD)

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

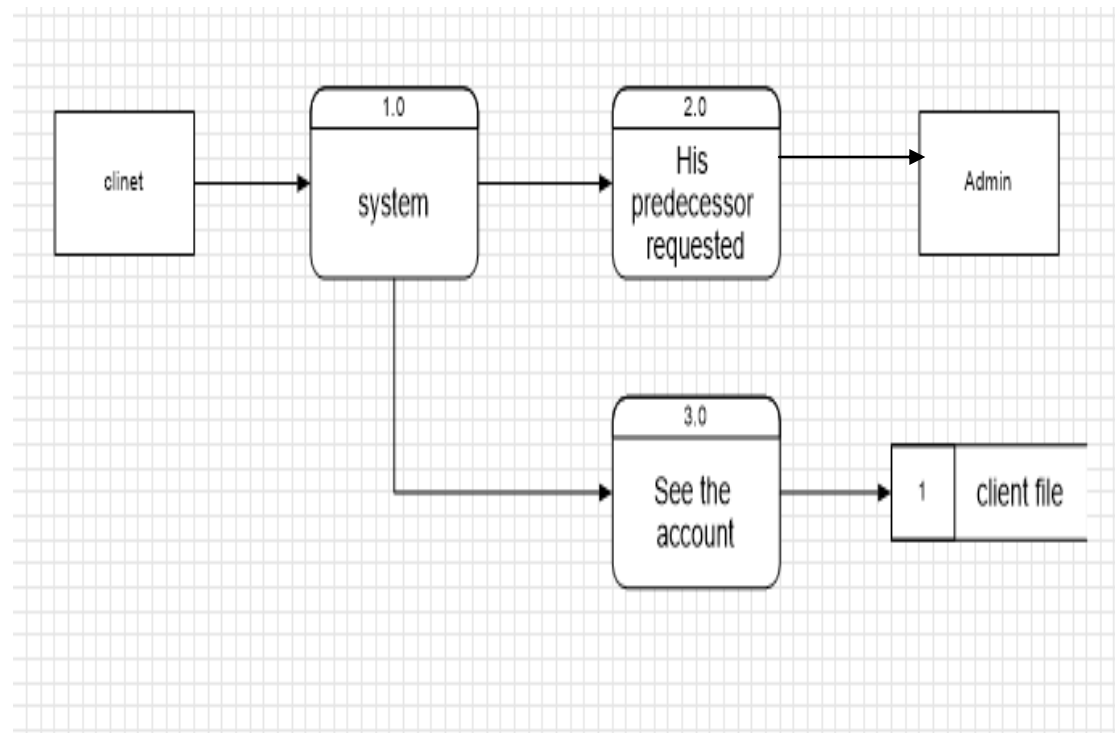


Fig.2.5 clinet leve 0 (DFD)

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

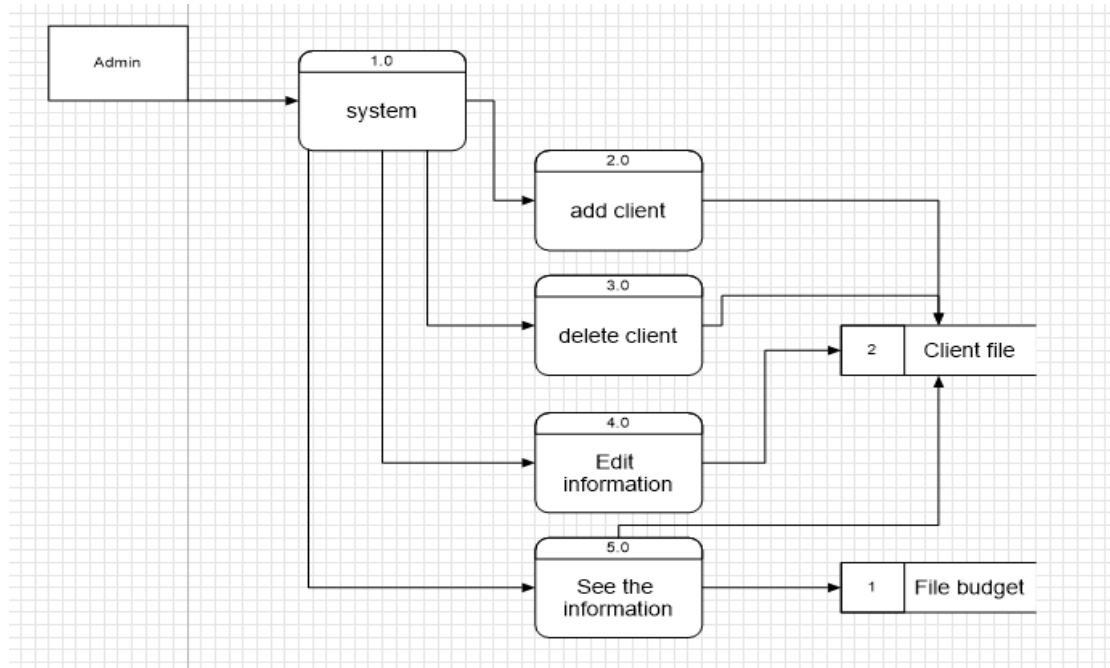


Fig.2.6 Admin leve 0 (DFD)

Class diagram

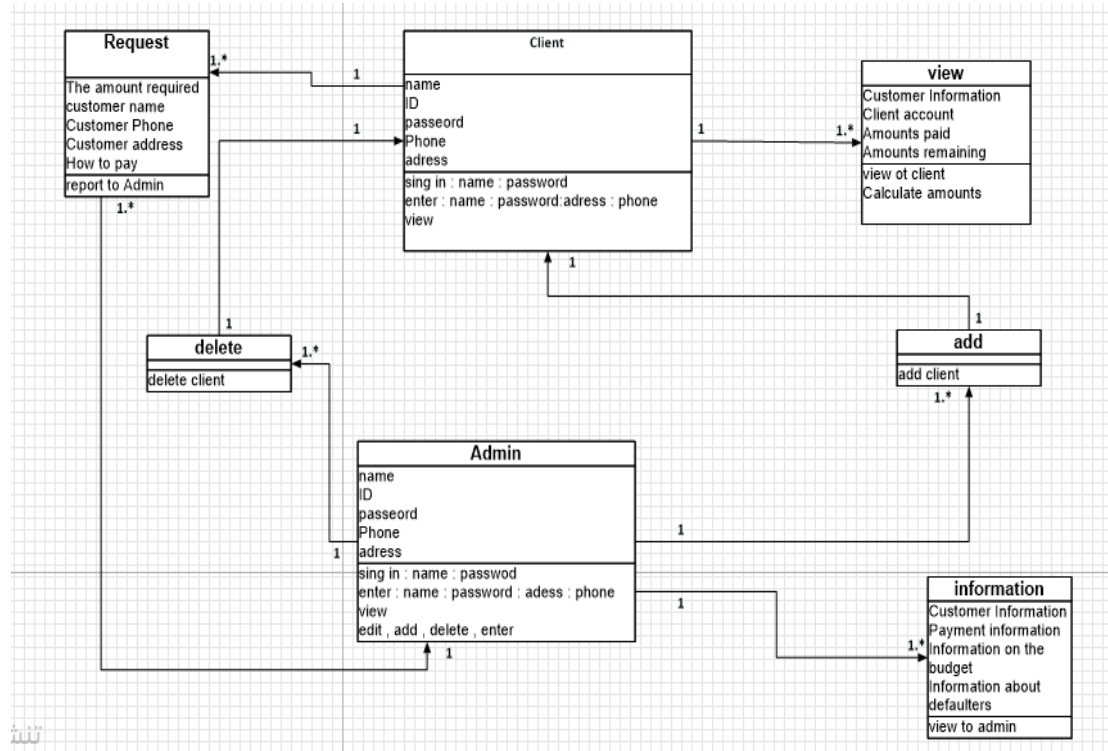


Fig.2.7 Class diagram

Context Diagram

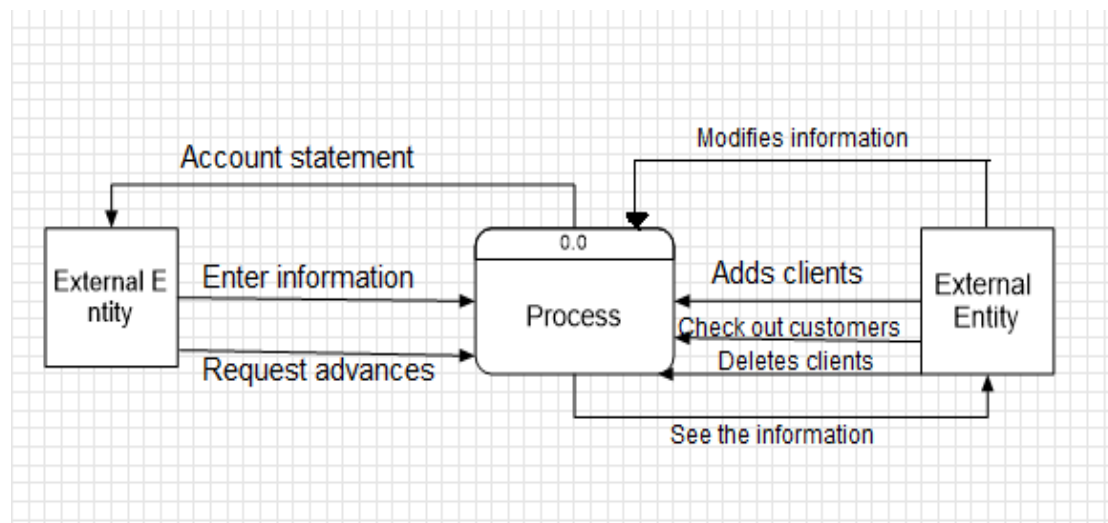


Fig.2.8 Context Diagram

2.5 activity diagram

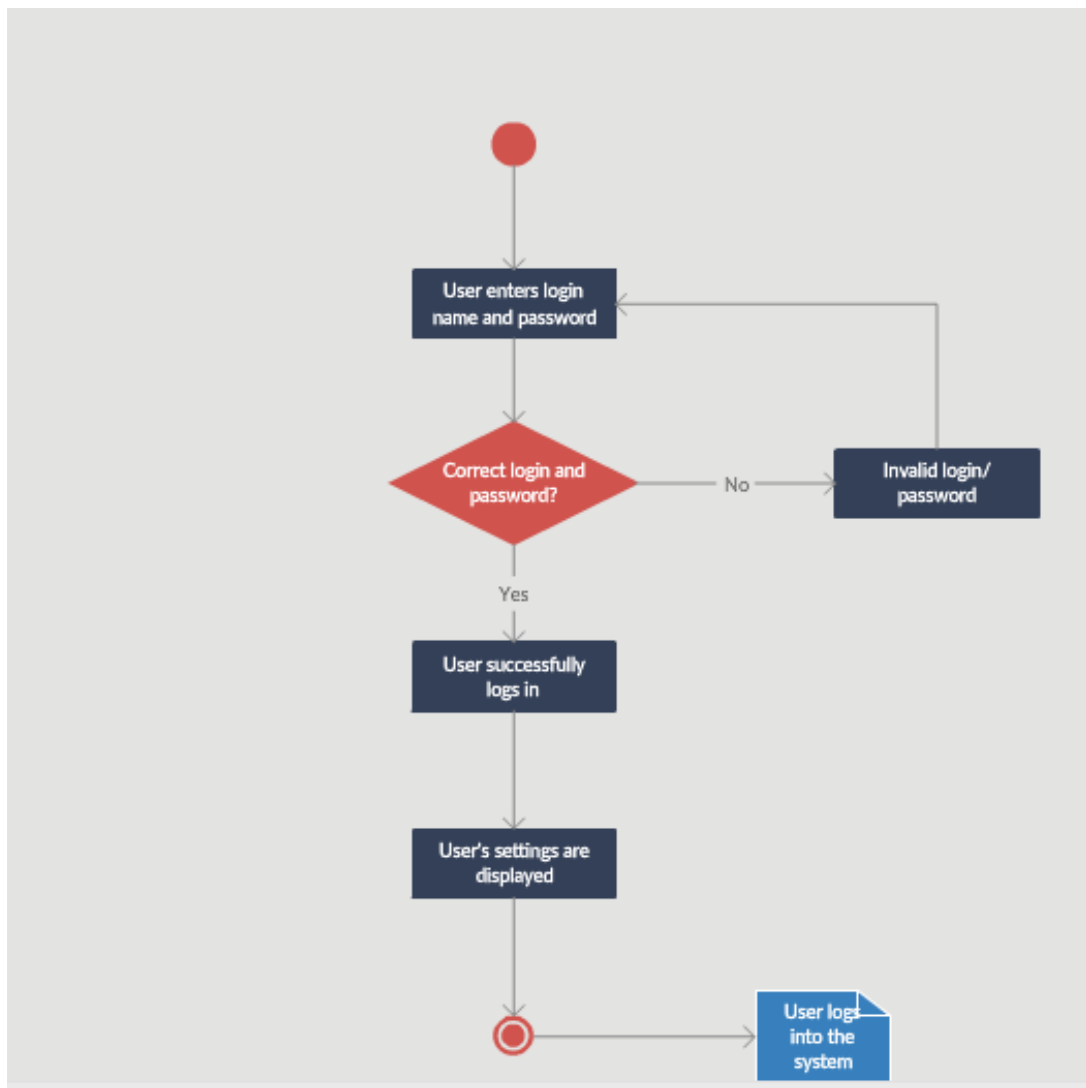


Fig.2.9 activity diagram(log in)

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

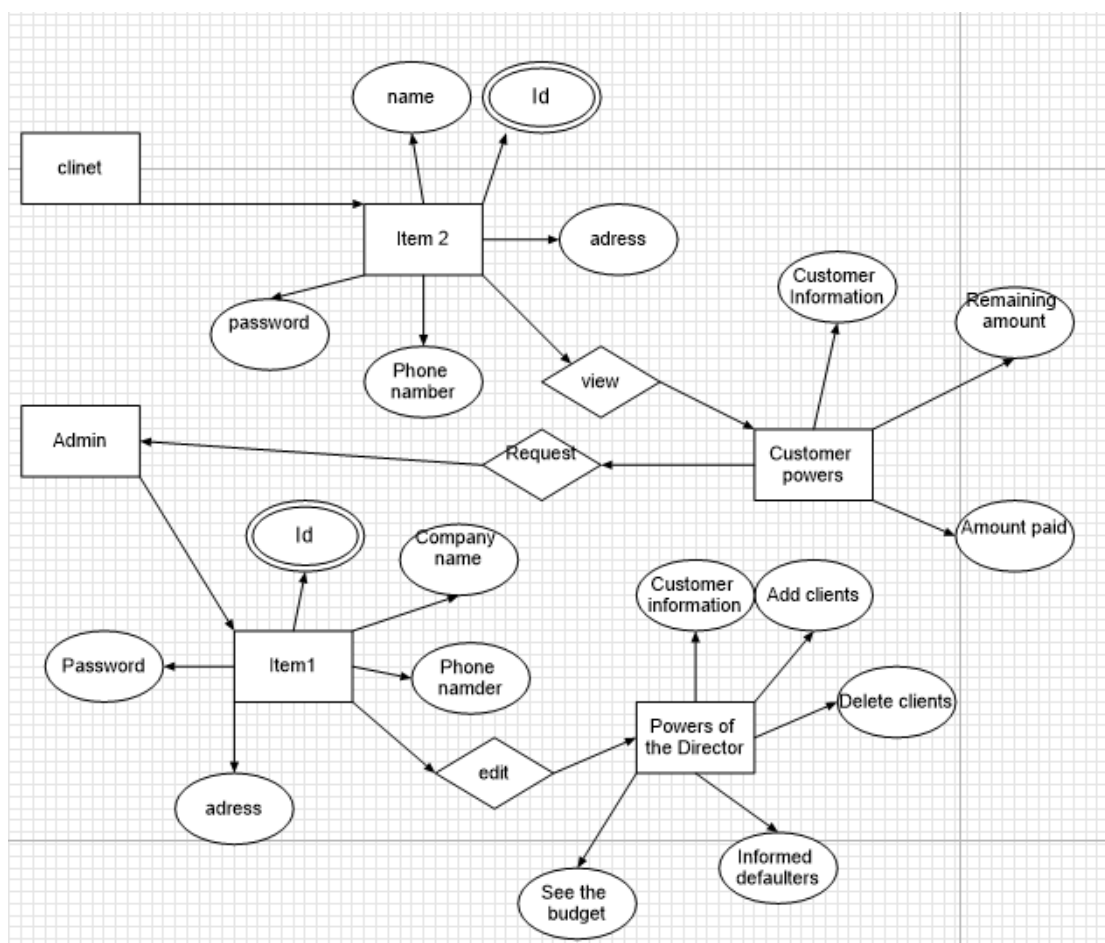


Fig.3.0 (ERD)

2.7 sequence Diagram

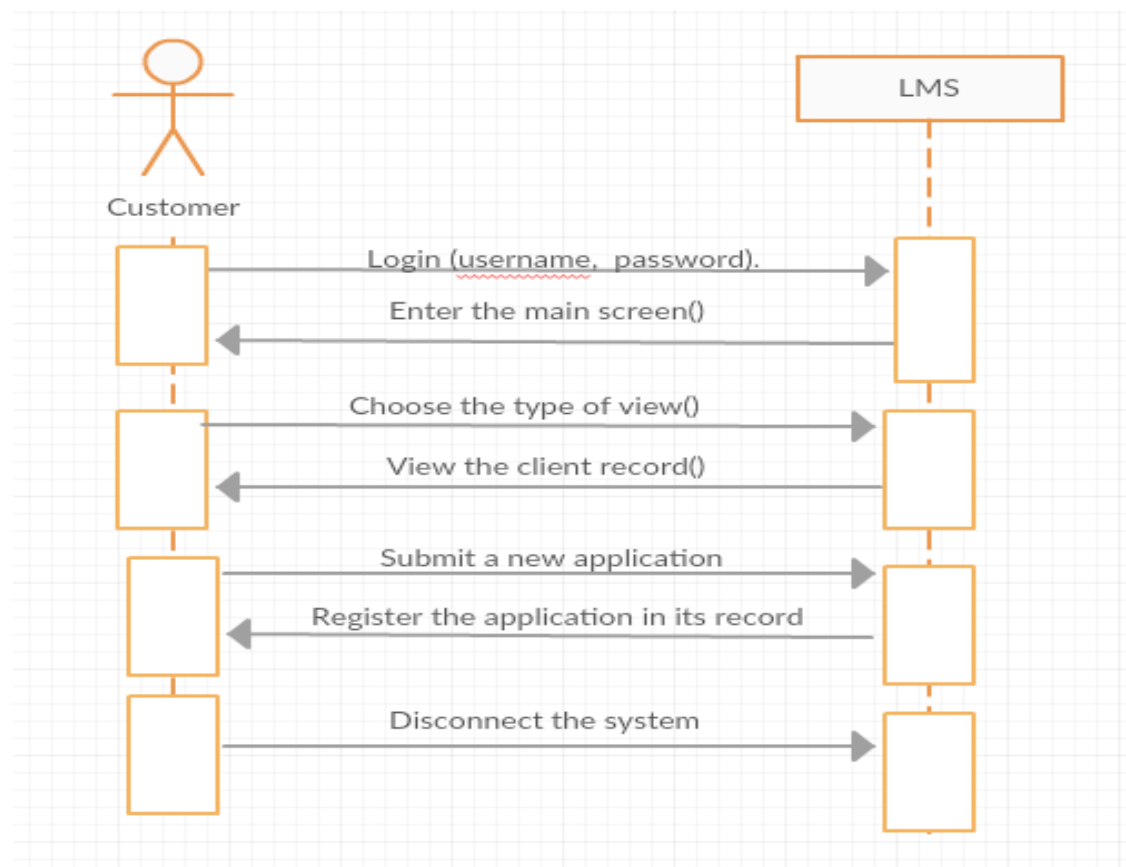


Fig.3.1customer (sequence Diagram)

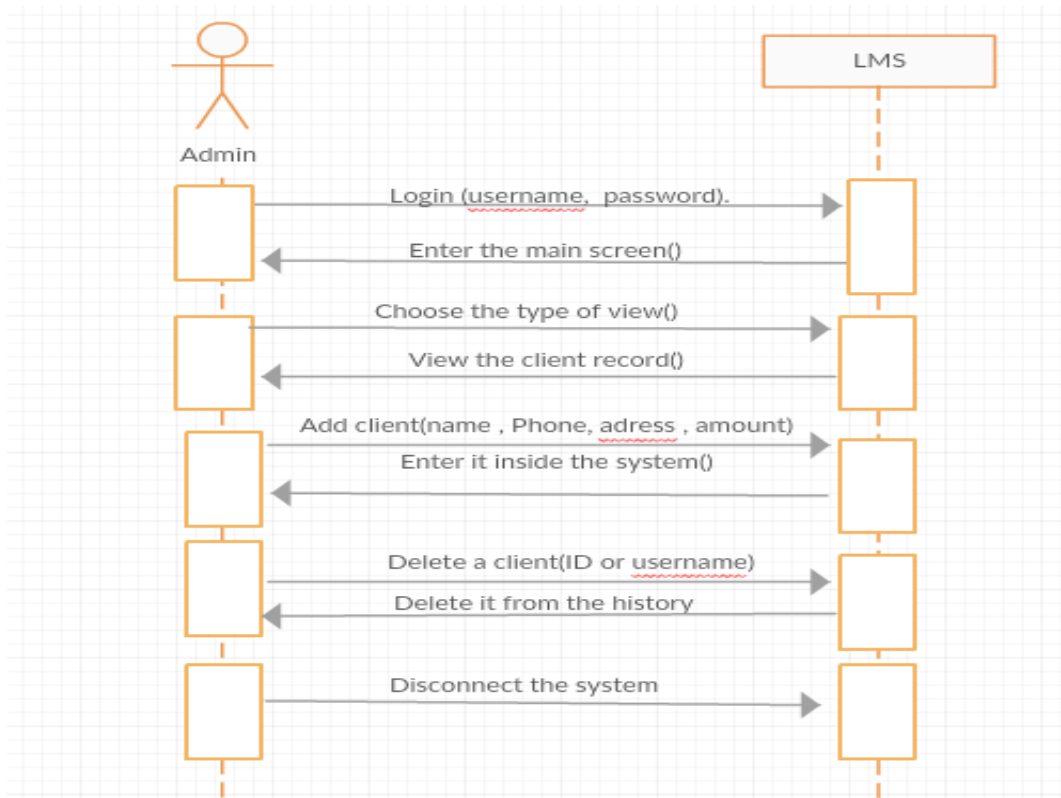


Fig 3.2 Admin (sequence Diagram)

2.8 Interface

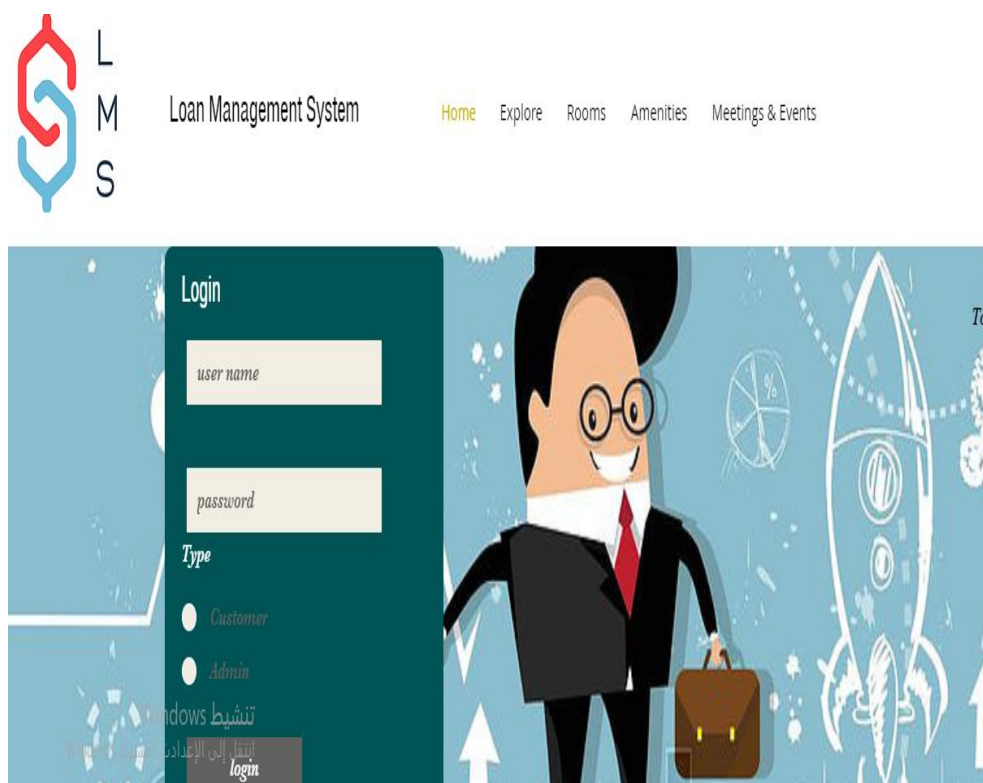


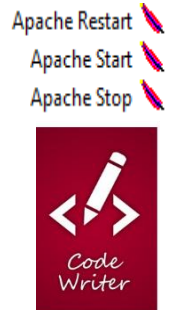
Fig.3.3 long in (interface)

Project 2

Website:

If we want create dynamic website must be use two program

- 1- First program : App Server to execute my website in localhost server .
- 2- Second program : code writer two Write my PHP Code .



Step Create website Loan :

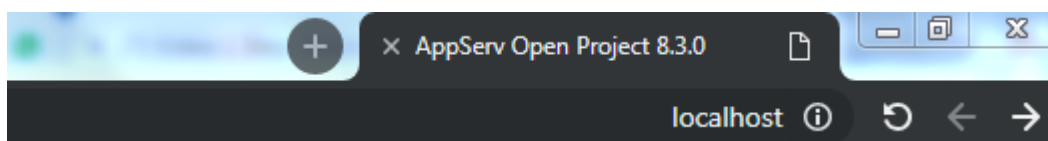


- 1- First Create Database give name it loan and Create tables to store data.
- 2- Second Create Interface website loan
- 3- Third write code (html-css- jquery-php).

First: Create a database

- 1- Run localhost server

In browser (google chrome) write localhost



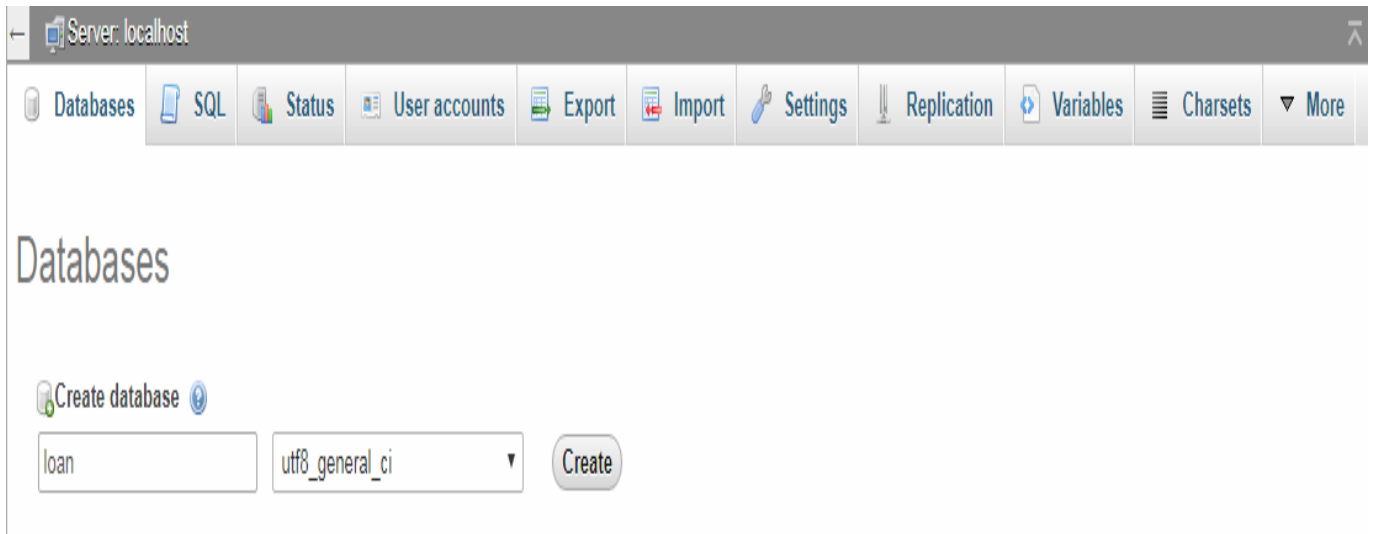
First screen show login server :

User : root

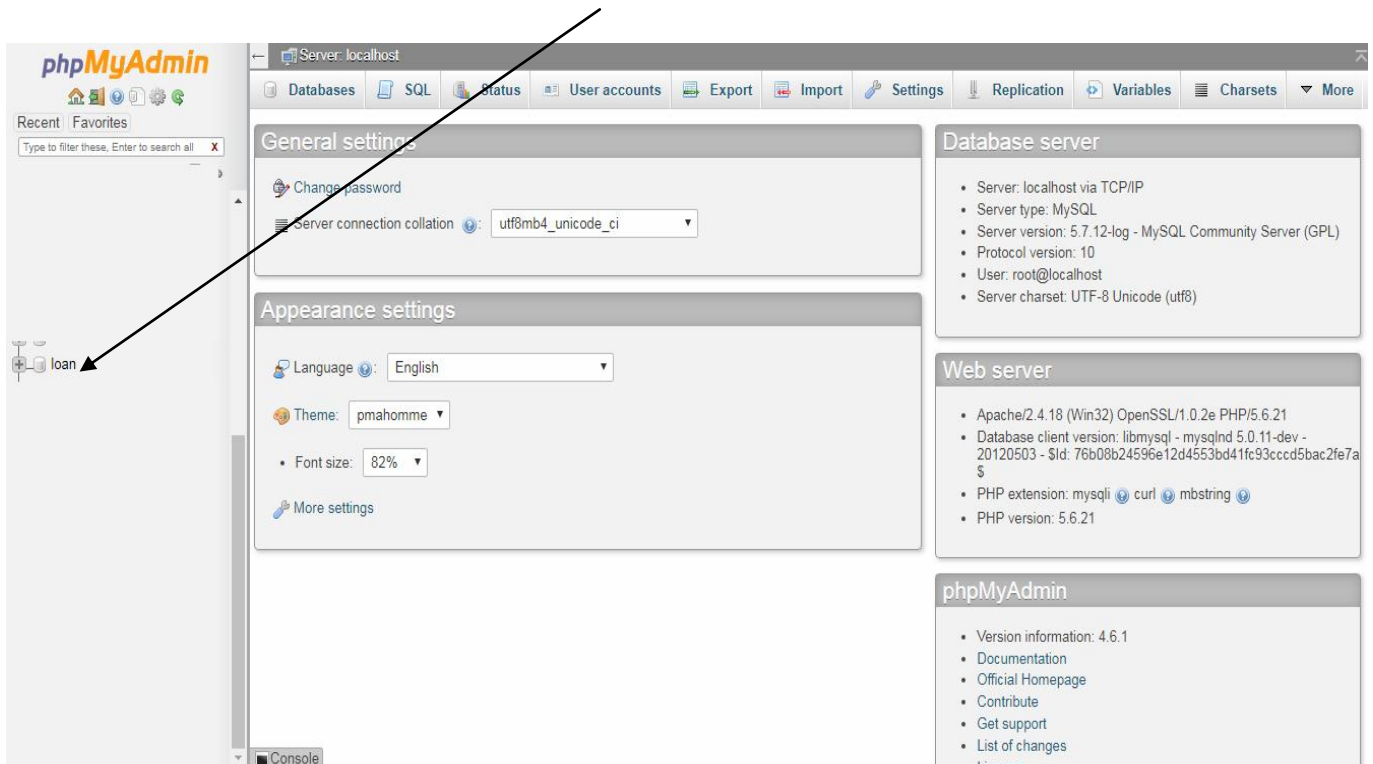
Password: Mjoodi123

A screenshot of the phpMyAdmin login page. It features the phpMyAdmin logo at the top, followed by the text 'Welcome to phpMyAdmin'. Below this is a 'Language' dropdown menu set to 'English'. At the bottom is a 'Log in' section with 'Username:' and 'Password:' labels, input fields, and a 'Go' button.

Click option database and fill two field and click create .



after click create database show in left side



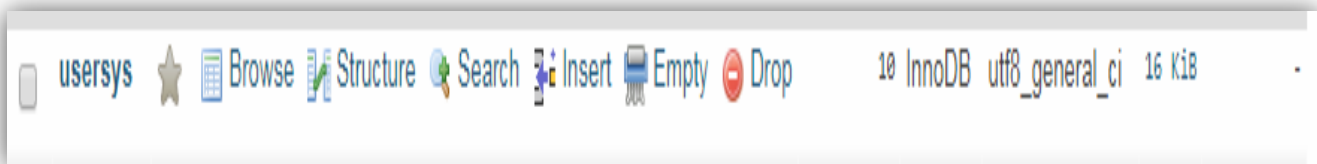
now we start create tables and dived to three section in my companies

- tables for Administrator
- tables for employee
- tables for Customer

first create tables for Administrator

table usersys :

in this table defined type of users in my system loan



tables content of 2 two field

Server: localhost » Database: loan » Table: usersys

Table structure | Relation view

✓ Table usersys has been altered successfully.

```
ALTER TABLE `usersys` CHANGE `groupNO` `groupNO` MEDIUMINT(2) NOT NULL AUTO_INCREMENT;
```

[Edit inline] [Edit] [Create PHP code]

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	groupNO	mediumint(2)			No	None		AUTO_INCREMENT	Change Drop More
2	groupName	varchar(100)	utf8_general_ci		No	None			Change Drop More

Check all | With selected: Browse Change Drop Primary Unique Index

group No : auto_increment integer field length 2.

groupname: varchar(10).

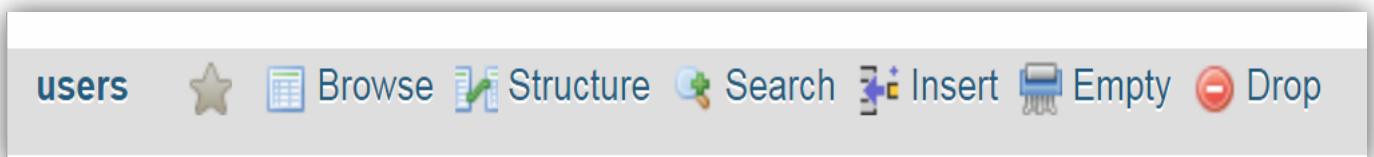
Data in table

+ Options

	groupNO	groupName
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	administrator
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	employee
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	customer

↑ Check all With selected: Edit Copy Delete Export

Table users : content data of users use a system .

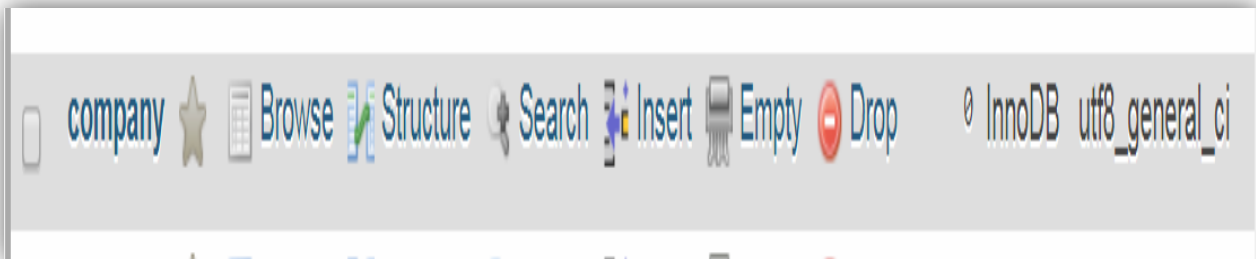


Fields in table users :

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	<u>UserID</u>	int(11)			No	None	To Identify User	AUTO_INCREMENT	Change Drop Primary Unique More
<input type="checkbox"/> 2	<u>Username</u>	varchar(255)	utf8_general_ci		No	None	username to log		Change Drop Primary Unique More
<input type="checkbox"/> 3	<u>password</u>	varchar(255)	utf8_general_ci		No	None	password to log		Change Drop Primary Unique More
<input type="checkbox"/> 4	<u>Email</u>	varchar(255)	utf8_general_ci		No	None			Change Drop Primary Unique More
<input type="checkbox"/> 5	<u>FullName</u>	varchar(255)	utf8_general_ci		No	None			Change Drop Primary Unique More
<input type="checkbox"/> 6	<u>GroupID</u>	int(11)			No	0	Identify user permission		Change Drop Primary Unique More
<input type="checkbox"/> 7	<u>jawal</u>	varchar(13)	utf8_general_ci		Yes	NULL			Change Drop Primary Unique More

Table company

Content companies join my website.



Server: localhost » Database: loan » Table: company

Browse Structure SQL Search Insert Export Import Privileges More

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	companyID	mediumint(2)			No	None		AUTO_INCREMENT	Change Drop More
2	companyName	varchar(300)	utf8_general_ci		No	None			Change Drop More
3	companyAddress	varchar(300)	utf8_general_ci		No	None			Change Drop More
4	copanytel	varchar(10)	utf8_general_ci		No	None			Change Drop More
5	companyjal	varchar(10)	utf8_general_ci		No	None			Change Drop More

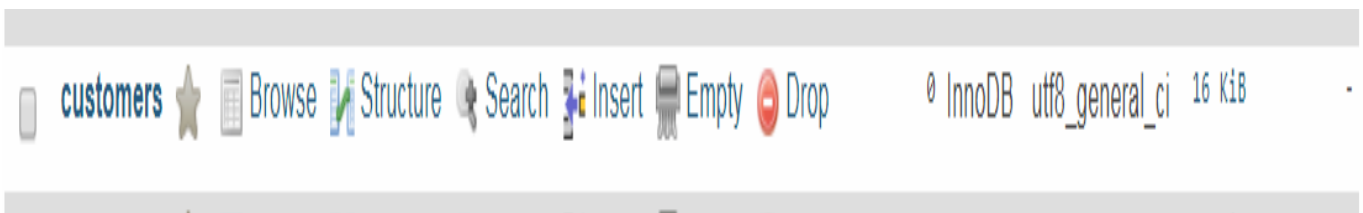
Table barnche :

branch Browse Structure Search Insert Empty Drop InnoDB utf8_general_ci

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	companyID	mediumint(1)			No	None			Change Drop More
2	branchID	mediumint(2)			No	None		AUTO_INCREMENT	Change Drop More
3	branchName	mediumtext	utf8_general_ci		No	None			Change Drop More
4	branchAddress	mediumtext	utf8_general_ci		No	None			Change Drop More

Table customer :



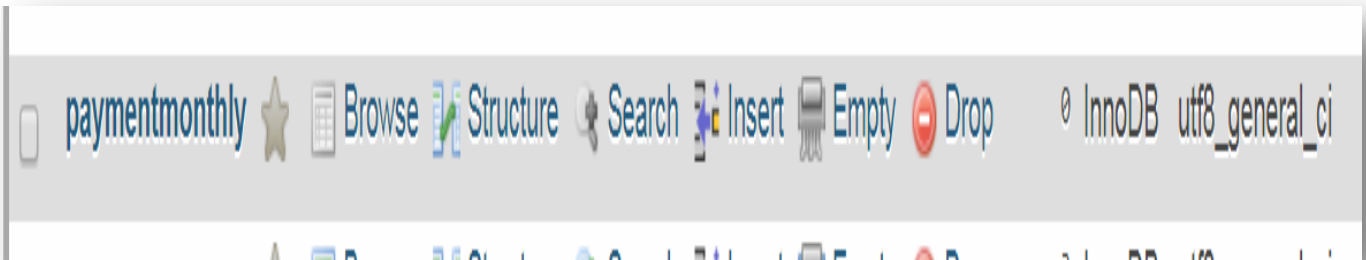
Server: localhost » Database: loan » Table: customers

[Browse](#)
[Structure](#)
[SQL](#)
[Search](#)
[Insert](#)
[Export](#)
[Import](#)
[Privileges](#)
[More](#)

[Table structure](#)
[Relation view](#)

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	UserID	mediumint(5)			No	None			Change Drop Primary More
2	haiwaNO	varchar(11)	utf8_general_ci		No	None			Change Drop Primary More
3	cust_date	varchar(10)	utf8_general_ci		No	None			Change Drop Primary More
4	cust_city	varchar(100)	utf8_general_ci		No	None			Change Drop Primary More
5	haiwastartdate	varchar(10)	utf8_general_ci		No	None			Change Drop Primary More
6	hawiaenddate	varchar(10)	utf8_general_ci		No	None			Change Drop Primary More
7	gender	mediumint(1)			No	None			Change Drop Primary More
8	kindhawia	mediumint(2)			No	None			Change Drop Primary More

Table_paymentmonthly :



The 'Table structure' view shows the following table definition:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	cart_id	mediumint(11)			No	None			Change Drop Primary Unique Index Spatial More
2	paymonth_id	mediumint(2)			No	None			Change Drop Primary Unique Index Spatial More
3	cust_id	mediumint(10)			No	None			Change Drop Primary Unique Index Spatial More
4	amount_date	varchar(10)	utf8_general_ci		No	None			Change Drop Primary Unique Index Spatial More
5	mount	float			No	None			Change Drop Primary Unique Index Spatial More
6	mount_true	mediumint(1)			No	None			Change Drop Primary Unique Index Spatial More

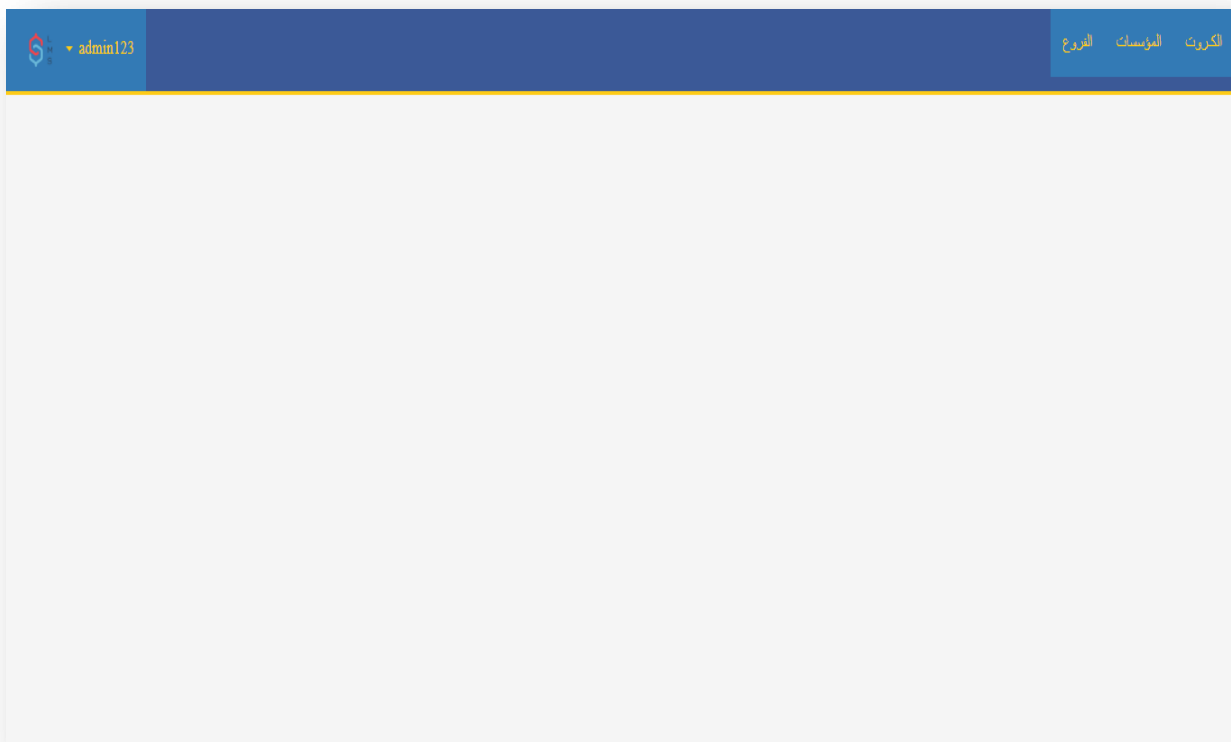
Interface of website loan:

Page of login website loan



First : interface for admin

If admin sign in website loan write username and password show the control panel



First choose insert carts from cart.php page :

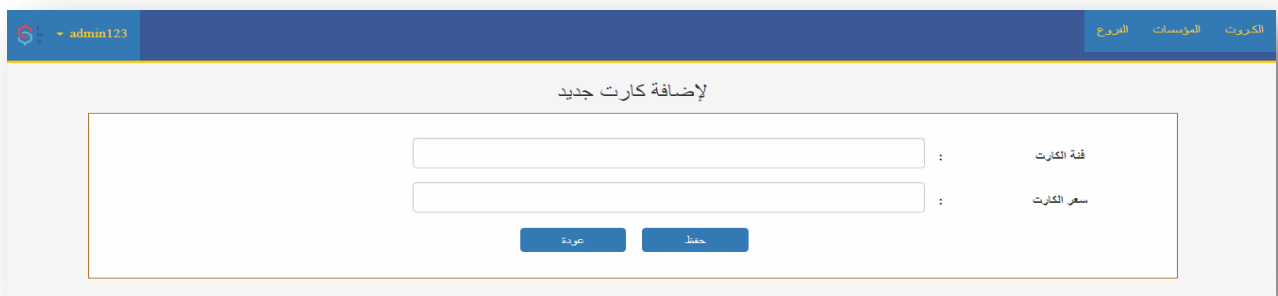
In this page show pervious cart inserted and button to add a new cart .



The screenshot shows the 'الكروت' (Cards) page. At the top right, there are navigation links: 'الكروت', 'المؤسسات', and 'البروج'. The page title is 'الكروت'. In the top right corner, there is a blue button labeled 'اضافة كروت' (Add Cards). Below this is a table with the following columns: 'م' (ID), 'فئة الكروت' (Card Type), 'اختر للتعديل' (Select for edit), and 'اختر للحذف' (Select for delete). The table contains five rows of data:

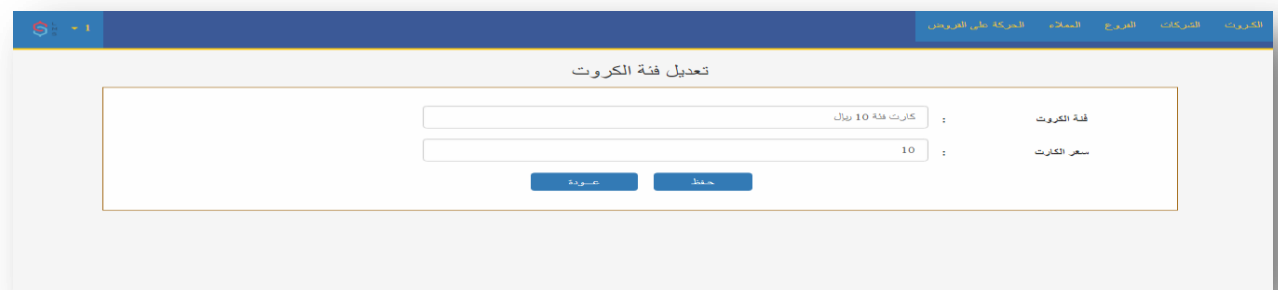
م	فئة الكروت	اختر للتعديل	اختر للحذف
١	كارت فئة 10 ريال	أفقر هنا	أفقر هنا
٢	كارت فئة 20 ريال	أفقر هنا	أفقر هنا
٣	كارت فئة 30 ريال	أفقر هنا	أفقر هنا
٤	كارت فئة 50 ريال	أفقر هنا	أفقر هنا
٥	كارت فئة 100 ريال	أفقر هنا	أفقر هنا

If the admin click button (إضافة كروت) show page add a cart



The screenshot shows the 'إضافة كارت جديد' (Add New Card) form. It has two input fields: 'فئة الكارت' (Card Type) and 'سعر الكارت' (Card Price). Below the fields are two buttons: 'عودة' (Back) and 'حفظ' (Save).

If the admin click button (تعديل) allow admin update record from table cart



The screenshot shows the 'تعديل فئة الكروت' (Edit Card Type) form. It has two input fields: 'فئة الكروت' (Card Type) with the value 'كارت فئة 10 ريال' and 'سعر الكارت' (Card Price) with the value '10'. Below the fields are two buttons: 'عودة' (Back) and 'حفظ' (Save).

If the admin click button (حذف) allow admin delete record from table cart

2 - company : (المؤسسات)

م	المؤسسات	اختر للتعديل	اختر للحذف
١	mobily	<input type="button" value="تعديل هنا"/>	<input type="button" value="حذف هنا"/>
٢	STC	<input type="button" value="تعديل هنا"/>	<input type="button" value="حذف هنا"/>
٣	زين	<input type="button" value="تعديل هنا"/>	<input type="button" value="حذف هنا"/>

If admin click button (إضافة مؤسسة) :

If admin click button (تعديل) get the update page of companyIf click

button (حذف) delete record from table company.

2 - Branches : (الفروع)

If admin click الفروع menu:

إضافة مؤسسة

المؤسسة :

العنوان :

الايهيل :

التليفون :

الجوال :

If admin click button (إضافة فرع) :

The screenshot shows a web application interface for adding a new branch. The header includes a user profile 'admin123' and navigation links for 'الرئيسية' (Home), 'المؤسسات' (Institutions), and 'الفرع' (Branch). The main heading is 'لإضافة فرع جديد' (Add New Branch). The form contains the following fields:

- المؤسسة (Institution):** A dropdown menu with options: 'أختار المؤسسة...', 'أختار المؤسسة...', 'mobily', 'STC', and 'زين'.
- الفرع (Branch):** A text input field.
- العنوان (Address):** A text input field.
- اسم المستخدم (Username):** A text input field.
- كلمة المرور (Password):** A text input field.

At the bottom of the form are two buttons: 'عودة' (Back) and 'حفظ' (Save).

If admin click button (تعديل) get the update page of branch

If click button (حذف) delete record from table branch.

The screenshot shows a web application interface for editing a branch. The header includes a user profile 'admin1' and navigation links for 'الرئيسية' (Home), 'المؤسسات' (Institutions), and 'الفرع' (Branch). The main heading is 'تعديل تالفرع' (Edit Branch). The form contains the following fields:

- المؤسسة (Institution):** A dropdown menu with the selected value 'mobily'.
- الفرع (Branch):** A text input field with the value 'القسم 2'.
- العنوان (Address):** A text input field with the value 'القسم حي الخالدية'.
- العنوان (Address):** A text input field with the value 'القسم حي الخالدية'.

At the bottom of the form are two buttons: 'عودة' (Back) and 'حفظ' (Save).

If employee sign in website loan write username and password show the page:

م	العميل	اختر للتعديل	اختر للحذف
١	عبدالمجيد الحربي	أقر هنا	أقر هنا

If employee click menu العملاء the pervious page

If employee click إضافة عميل display the form insert customer

إضافة عميل لمؤسسة mobily

هوية العميل :

اسم العميل :

تاريخ الإصدار : اليوم ... الشهر ... السنة ...

تاريخ الانتهاء : اليوم ... الشهر ... السنة ...

تاريخ الميلاد : اليوم ... الشهر ... السنة ...

الجنس :

الجنسية :

البريد الإلكتروني :

If employee click تعديل عميل display the form update customer

تعديل الشركة

هوية العميل : 123

اسم العميل : عبدالمجيد الحربي

تاريخ الإصدار : 01 / 01 / 1438

تاريخ الانتهاء : 01 / 01 / 1438

تاريخ الميلاد : 01 / 01 / 1420

الجنس : ذكر

الجنسية : سعودي

البريد الإلكتروني : info@hotmail.com

If click button (حذف) delete record from table customer.

If employee click menu إنشاء قرض display the page create loan



If employee click إضافة قرض display the form insert loan:

If employee click تعديل قرض display the form update loan:

click button (حذف) delete record from table loan.



If employee click دفع القسط الشهري show the next page

الدفع الشهري للقرض

اسم العميل : عبدالمجيد الحربي

م	الشهر	تاريخ الدفع	القسط الشهري	حالة الدفع
١	شهر 1	01 / 01 / 1440	1037.5	تم الدفع
٢	شهر 2	01 / 02 / 1440	1037.5	تم الدفع
٣	شهر 3	03 / 03 / 1440	1037.5	تم الدفع
٤	شهر 4	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٥	شهر 5	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٦	شهر 6	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٧	شهر 7	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٨	شهر 8	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
	اجمالي المبلغ	8300	اجمالي المدفوع	3112.5

third : interface for customer

If customer sign in website loan write username and password show the page:

الدفع الشهري للقرض

اسم العميل : عبدالمجيد الحربي

م	الشهر	تاريخ الدفع	القسط الشهري	حالة الدفع
١	شهر 1	01 / 01 / 1440	1037.5	تم الدفع
٢	شهر 2	01 / 02 / 1440	1037.5	تم الدفع
٣	شهر 3	03 / 03 / 1440	1037.5	تم الدفع
٤	شهر 4	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٥	شهر 5	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٦	شهر 6	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٧	شهر 7	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
٨	شهر 8	اليوم . / الشهر / السنة ...	1037.5	لم يتم الدفع
	اجمالي المبلغ	8300	اجمالي المدفوع	3112.5

Cod connect

```
<?php
$dsn='mysql:host=localhost;dbname=loan';
$user="root";
$pass="Mjodi123";
$option=array(
    PDO::MYSQL_ATTR_INIT_COMMAND => 'SET NAMES utf8',
);
try
{
    $con= new PDO($dsn,$user,$pass,$option);
    $con->setAttribute(PDO::ATTR_ERRMODE,PDO::ERRMODE_EXCEPTION);
}
catch(PDOException $e)
{
    echo 'Failed To Connect'.$e->getMessage();
}
?>
```

Cod login

```
<?php
session_start();

if (isset($_POST['submit'])) {

$name=$_POST['name'];
$pass=$_POST['pass'];
$passsha=sha1($pass);
$errorEmpty=false;
$nameEmpty=false;
$passEmpty=false;
if (empty($name) or empty($pass)) {
    echo "<span class='form-error'> يجب ملء جميع الحقول  

!!</span>";
    $errorEmpty=true;
}
else {

    $errorEmpty=false;
}
}
?>
<script>

$("#log-name,#log-password").removeClass("input-error");
var errorEmpty="<?php echo $errorEmpty ?>";
var nameEmpty="<?php echo $nameEmpty ?>";
var passEmpty="<?php echo $passEmpty ?>";
if (errorEmpty==true) {
    $("#log-name,#log-password").addClass("input-error");
}
if (errorEmpty==false ) {

    <?php
    include("connect.php");

    $stmt=$con->prepare("SELECT
                                *
                                FROM users
                                WHERE
                                    Username= ?
                                AND
                                    Password= ?
                                ");

    $stmt->execute(array($name,$passsha));
    $row=$stmt->fetch();
    $count=$stmt->rowCount();
    if ($count>0) {
        $_SESSION['Username']=$name;
```



```
$_SESSION['GroupID']=$row['GroupID'];
$_SESSION['ID']=$row['UserID'];

if ($_SESSION['GroupID']==2){
$_SESSION['companyID'] = $row['companyID'];
$_SESSION['branchID'] = $row['branchID'];
}

?>

location.replace("trans.php");
<?php
}
?>
}
</script>
```

Cod logout

```
<?php
ob_start();

    session_start();
    session_unset();
    session_destroy();
    header('Location: index.html');
    exit();
?>
```

Cod dashboard

```
<?php
session_start();

if (isset($_SESSION['Username']))
{
    $pageTitle='dashboard';
    include("includes/templates/header.php");
    include("includes/templates/navbar.php");

include ("includes/templates/footer.php");

}
else
{
    header("Location: index.php");
    exit();
}
?>
```

Reference:

- **PHP and MySQL Web Development, Fifth Edition**
- <https://www.youtube.com/channel/UCSNkfKI4cU-55Nm-ovsvOHQ>
- **MySQL Cookbook by Paul DuBois**
- <https://www.youtube.com/user/alxs1aa>
<https://www.a2hosting.com/kb/developer-corner/mysql/connect-to-mysql-using-php>
- **Advanced JavaScript, Third Editio**
- https://www.youtube.com/watch?v=1l_8nECYRvQ
- https://www.youtube.com/playlist?list=PLDoPjvoNmBAzAelcXA3_JsmSkPK_Os9W-Y
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