SL-1 Mini Project Report

A. Y. 2020-21

Submitted by

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December 9, 2020

Abstract

There are three panels which are enrolled in this service, first is user who want to take service, second is the garage who provide the requested services and the Admin who control and monitor all activity taking place between user and service provider (i.e. garage).With the help of this platform user first give the vehicle registration number ,after that they can get the service e.g. Tyre puncher, Break and clutch related, engine related etc. and estimated charges will also be generated at the time of placing order. The admin notifies the garage and tell service provider. Garage will provide the service and take the payment , after completion of work. Toll-Free service can be used in case of emergency. User is able to give feedback to the service provider based on the performance which helps the admin to give rating to the garage

Acknowledgement

We are overwhelmed in all humbleness and gratefulness to acknowledge our sincere gratitude to all those who have helped us put our ideas to perfection and have assigned tasks well above the level of simplicity and into something concrete and unique. We wholeheartedly thank **Prof. J. K. Kamble** for having faith in us, and
for continually motivating us to do better.

We thank **Dr. A. M. Bagade** for providing us with the opportunity to work on this project, and for his valuable suggestions. With the help of his brilliant guidance and encouragement, we were able to complete our tasks correctly and were up to the mark in all the assigned tasks. During the process, we got a chance to see the stronger side of our technical and non-technical aspects and strengthen our concepts.

Contents

Introduction

1.1 Purpose

- Every garage manages a lot of vehicle repairs in a day, and it becomes tough for them to keep track of every detail. It **reduces the time** taken for various regular shop operations .
- **Reduces paperwork** .
- Every auto shop has multiple things to manage at any given time . Therefore **to make a system with system with automated processes and functions** .
- To **improve customer experience** .

1.2 Scope

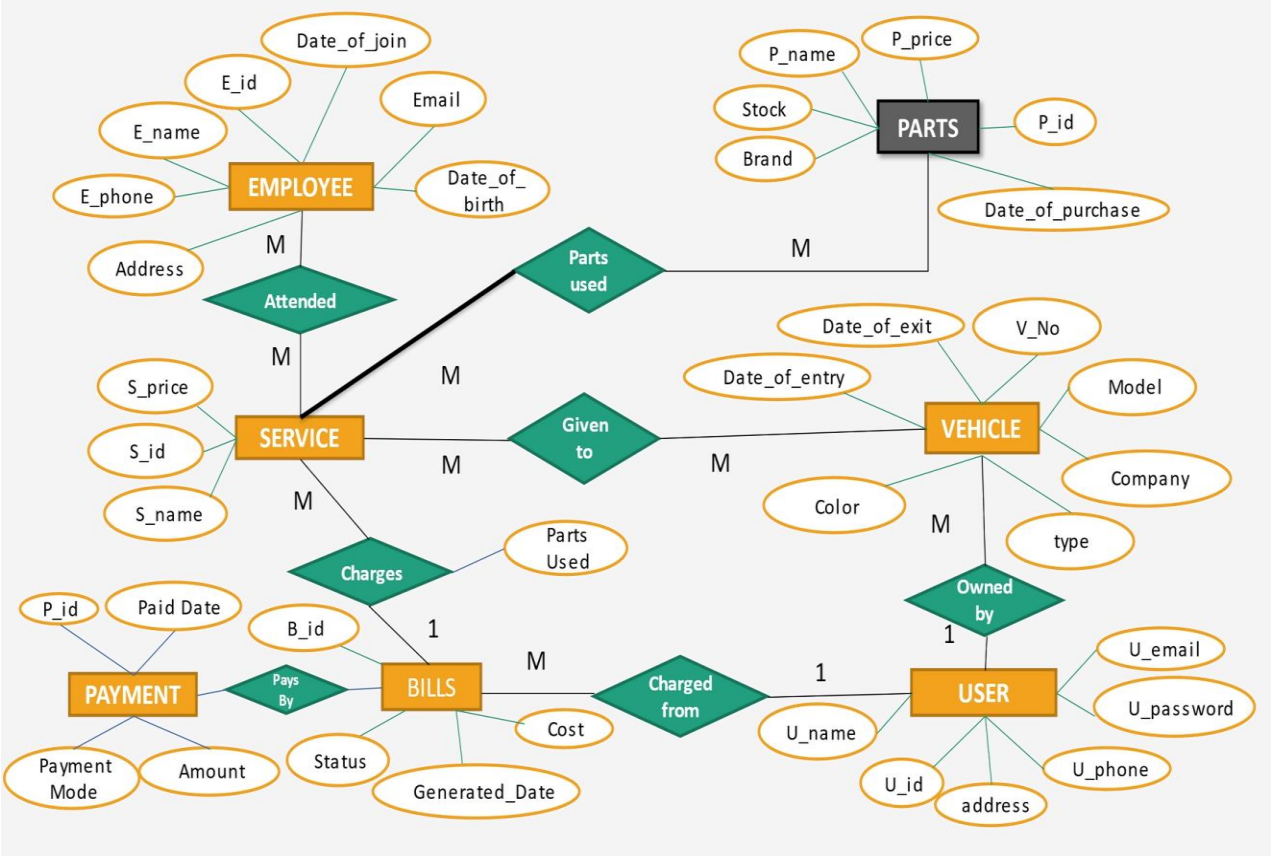
- User will have to go to garage to get his/her vehicle serviced . Also, automated data operations will increase user experience.
- As this is a stand alone system , admin only can enter data regarding vehicle .
- User or Customer can be able see the bills which are paid and remaining as well as vehicle details by user-login
- In emergency case user can use the Toll-Free number and quick response .
- It also promotes the provider business.

1.3 Developers' Responsibilities: An Overview

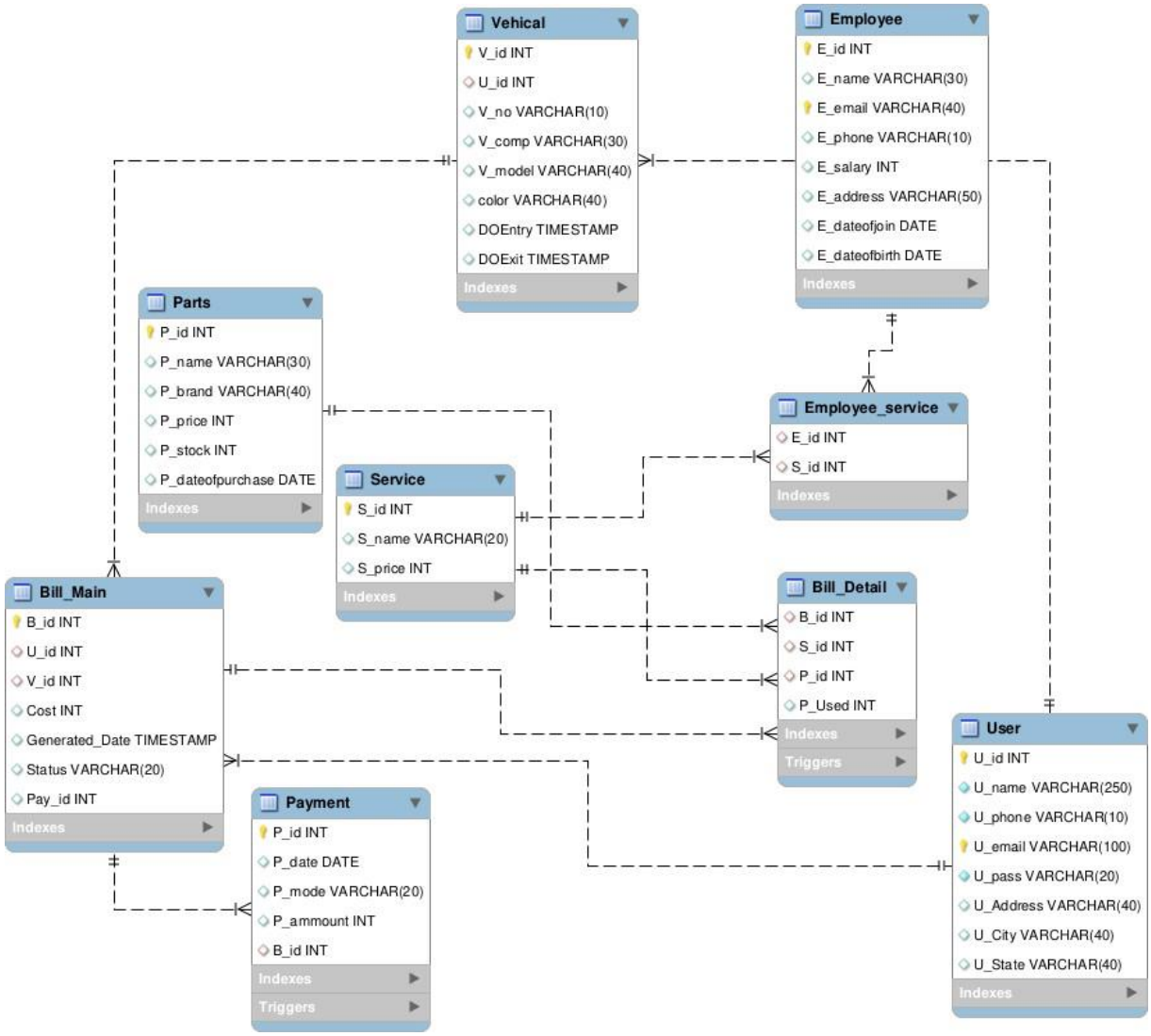
- Researching, designing, implementing and managing software programs.
- Testing and evaluating the program(s).
- Identifying areas for modification in existing programs and subsequently developing these modifications.
- Writing and implementing efficient code
- Deploying software tools, processes and metrics
- Maintaining and upgrading existing systems

System Design

2.1 ER Model

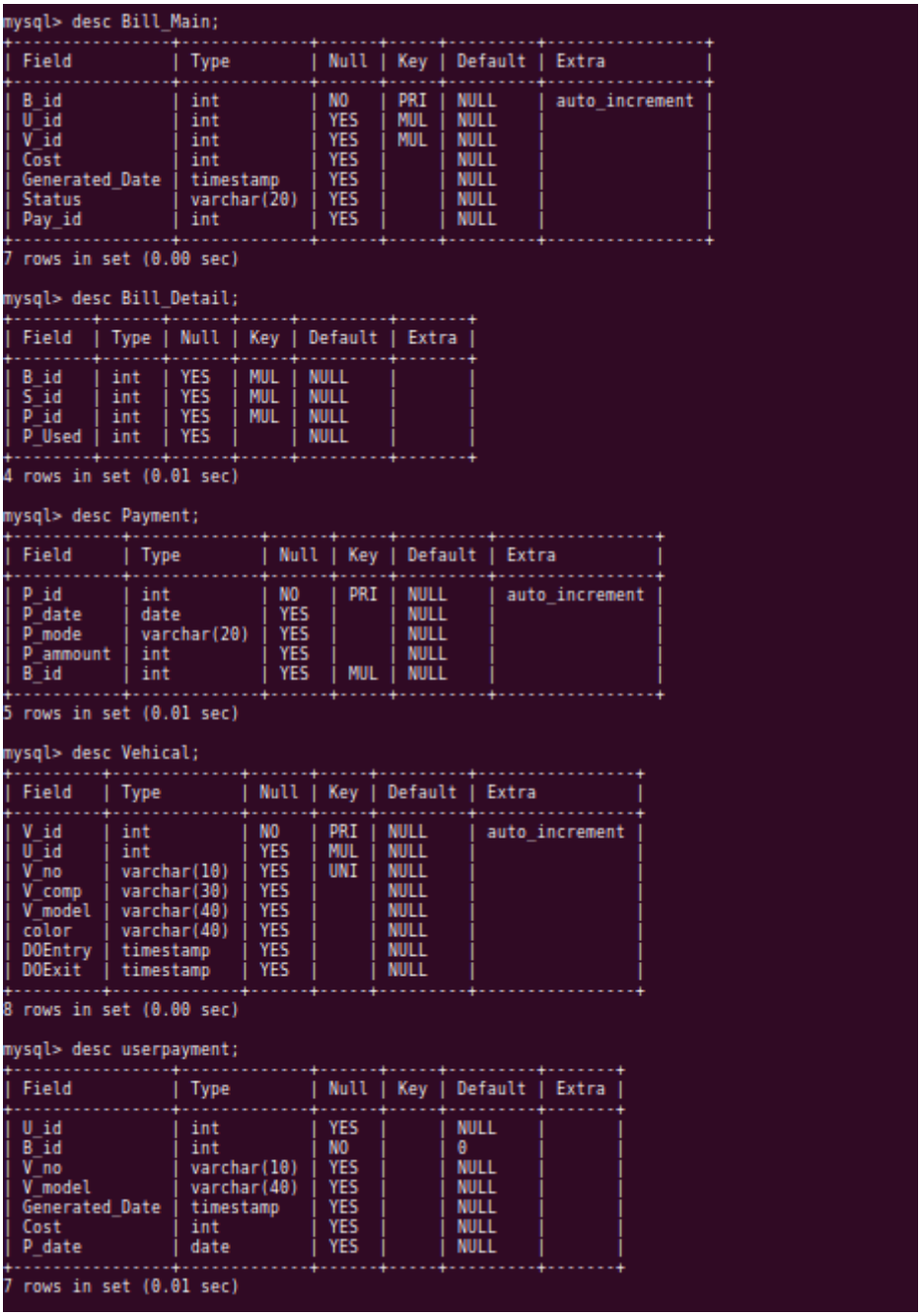


2.2 Schema Description



2.3 Table Description

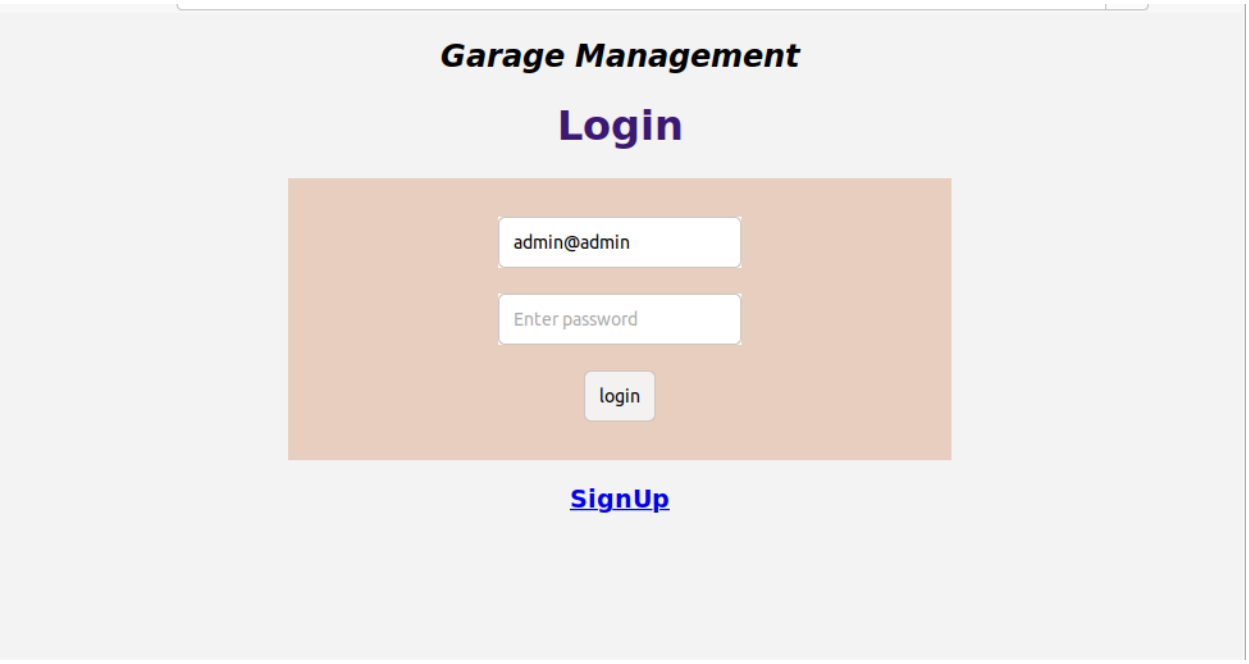
```
mysql> desc User;
+-----------+-------------+------+-----+---------+----------------+
| Field     | Type        | Null | Key | Default | Extra          |
+-----------+-------------+------+-----+---------+----------------+
| U_id      | int         | NO   | PRI | NULL    | auto_increment |
| U_name    | varchar(250)| NO   |     | NULL    |                |
| U_phone   | varchar(10) | NO   |     | NULL    |                |
| U_email   | varchar(100)| NO   | PRI | NULL    |                |
| U_pass    | varchar(20) | NO   |     | NULL    |                |
| U_Address | varchar(40) | YES  |     | NULL    |                |
| U_City    | varchar(40) | YES  |     | NULL    |                |
| U_State   | varchar(40) | YES  |     | NULL    |                |
+-----------+-------------+------+-----+---------+----------------+
8 rows in set (0.01 sec)

mysql> desc Employee;
+--------------+------------+------+-----+---------+----------------+
| Field        | Type       | Null | Key | Default | Extra          |
+--------------+------------+------+-----+---------+----------------+
| E_id         | int        | NO   | PRI | NULL    | auto_increment |
| E_name       | varchar(30)| YES  |     | NULL    |                |
| E_email      | varchar(40)| NO   | PRI | NULL    |                |
| E_phone      | varchar(10)| YES  |     | NULL    |                |
| E_salary     | int        | YES  |     | NULL    |                |
| E_address    | varchar(50)| YES  |     | NULL    |                |
| E_dateofjoin | date       | YES  |     | NULL    |                |
| E_dateofbirth| date       | YES  |     | NULL    |                |
+--------------+------------+------+-----+---------+----------------+
8 rows in set (0.00 sec)

mysql> desc Service;
+---------+------------+------+-----+---------+----------------+
| Field   | Type       | Null | Key | Default | Extra          |
+---------+------------+------+-----+---------+----------------+
| S_id    | int        | NO   | PRI | NULL    | auto_increment |
| S_name  | varchar(20)| YES  |     | NULL    |                |
| S_price | int        | YES  |     | NULL    |                |
+---------+------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> desc Parts;
+-----------------+------------+------+-----+---------+----------------+
| Field           | Type       | Null | Key | Default | Extra          |
+-----------------+------------+------+-----+---------+----------------+
| P_id            | int        | NO   | PRI | NULL    | auto_increment |
| P_name          | varchar(30)| YES  |     | NULL    |                |
| P_brand         | varchar(40)| YES  |     | NULL    |                |
| P_price         | int        | YES  |     | NULL    |                |
| P_stock         | int        | YES  |     | NULL    |                |
| P_dateofpurchase| date       | YES  |     | NULL    |                |
+-----------------+------------+------+-----+---------+----------------+
6 rows in set (0.00 sec)

mysql> desc Employee_service;
+-------+------+------+-----+---------+-------+
| Field | Type | Null | Key | Default | Extra |
+-------+------+------+-----+---------+-------+
| E_id  | int  | YES  | MUL | NULL    |       |
| S_id  | int  | YES  | MUL | NULL    |       |
+-------+------+------+-----+---------+-------+
2 rows in set (0.01 sec)
```



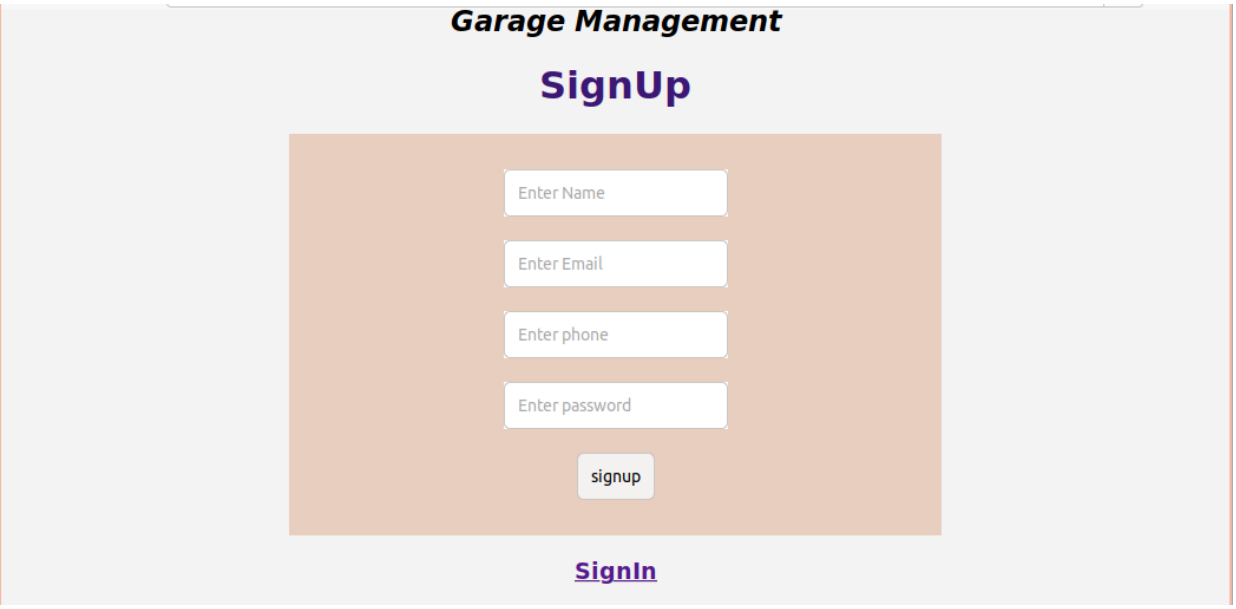
```
mysql> desc Bill_Main;
+----------------+-------------+------+-----+---------+----------------+
| Field          | Type        | Null | Key | Default | Extra          |
+----------------+-------------+------+-----+---------+----------------+
| B_id           | int         | NO   | PRI | NULL    | auto_increment |
| U_id           | int         | YES  | MUL | NULL    |                |
| V_id           | int         | YES  | MUL | NULL    |                |
| Cost           | int         | YES  |     | NULL    |                |
| Generated_Date | timestamp   | YES  |     | NULL    |                |
| Status         | varchar(20) | YES  |     | NULL    |                |
| Pay_id         | int         | YES  |     | NULL    |                |
+----------------+-------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)

mysql> desc Bill_Detail;
+--------+------+------+-----+---------+-------+
| Field  | Type | Null | Key | Default | Extra |
+--------+------+------+-----+---------+-------+
| B_id   | int  | YES  | MUL | NULL    |       |
| S_id   | int  | YES  | MUL | NULL    |       |
| P_id   | int  | YES  | MUL | NULL    |       |
| P_Used | int  | YES  |     | NULL    |       |
+--------+------+------+-----+---------+-------+
4 rows in set (0.01 sec)

mysql> desc Payment;
+-----------+-------------+------+-----+---------+----------------+
| Field     | Type        | Null | Key | Default | Extra          |
+-----------+-------------+------+-----+---------+----------------+
| P_id      | int         | NO   | PRI | NULL    | auto_increment |
| P_date    | date        | YES  |     | NULL    |                |
| P_mode    | varchar(20) | YES  |     | NULL    |                |
| P_ammount | int         | YES  |     | NULL    |                |
| B_id      | int         | YES  | MUL | NULL    |                |
+-----------+-------------+------+-----+---------+----------------+
5 rows in set (0.01 sec)

mysql> desc Vehical;
+---------+-------------+------+-----+---------+----------------+
| Field   | Type        | Null | Key | Default | Extra          |
+---------+-------------+------+-----+---------+----------------+
| V_id    | int         | NO   | PRI | NULL    | auto_increment |
| U_id    | int         | YES  | MUL | NULL    |                |
| V_no    | varchar(10) | YES  | UNI | NULL    |                |
| V_comp  | varchar(30) | YES  |     | NULL    |                |
| V_model | varchar(40) | YES  |     | NULL    |                |
| color   | varchar(40) | YES  |     | NULL    |                |
| DOEntry | timestamp   | YES  |     | NULL    |                |
| DOExit  | timestamp   | YES  |     | NULL    |                |
+---------+-------------+------+-----+---------+----------------+
8 rows in set (0.00 sec)

mysql> desc userpayment;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| U_id           | int         | YES  |     | NULL    |       |
| B_id           | int         | NO   |     | 0       |       |
| V_no           | varchar(10) | YES  |     | NULL    |       |
| V_model        | varchar(40) | YES  |     | NULL    |       |
| Generated_Date | timestamp   | YES  |     | NULL    |       |
| Cost           | int         | YES  |     | NULL    |       |
| P_date         | date        | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
7 rows in set (0.01 sec)
```

2.4 User Interface Design

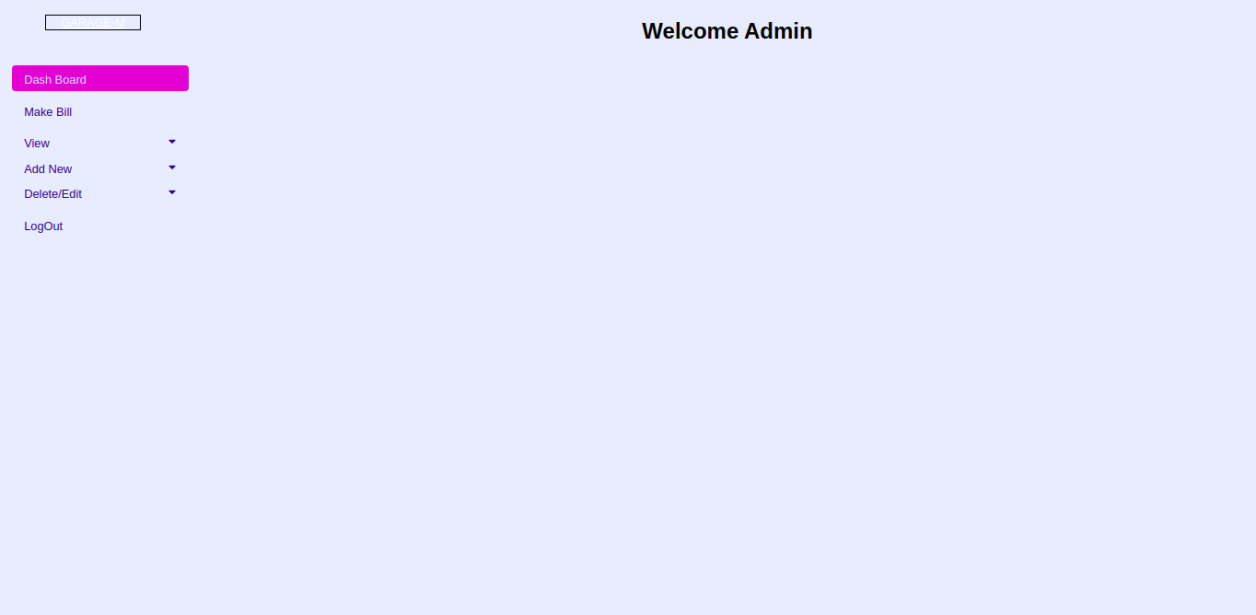
Login Page


Garage Management
Login
admin@admin
Enter password
login
SignUp

Sign Up Page

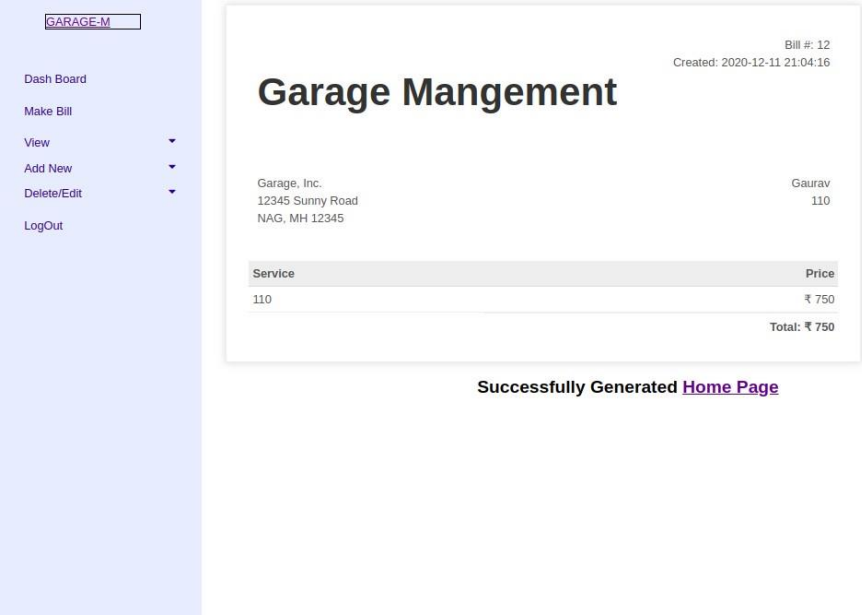

Garage Management
SignUp
Enter Name
Enter Email
Enter phone
Enter password
signup
SignIn

Admin Home



Make Bill

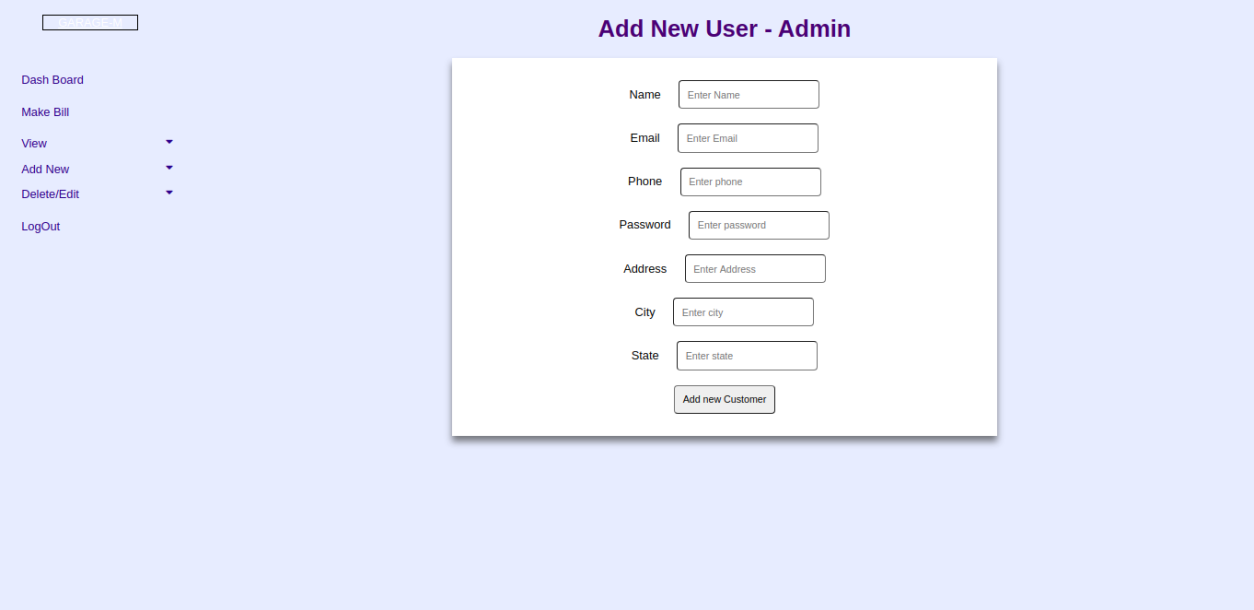
View generated Bill



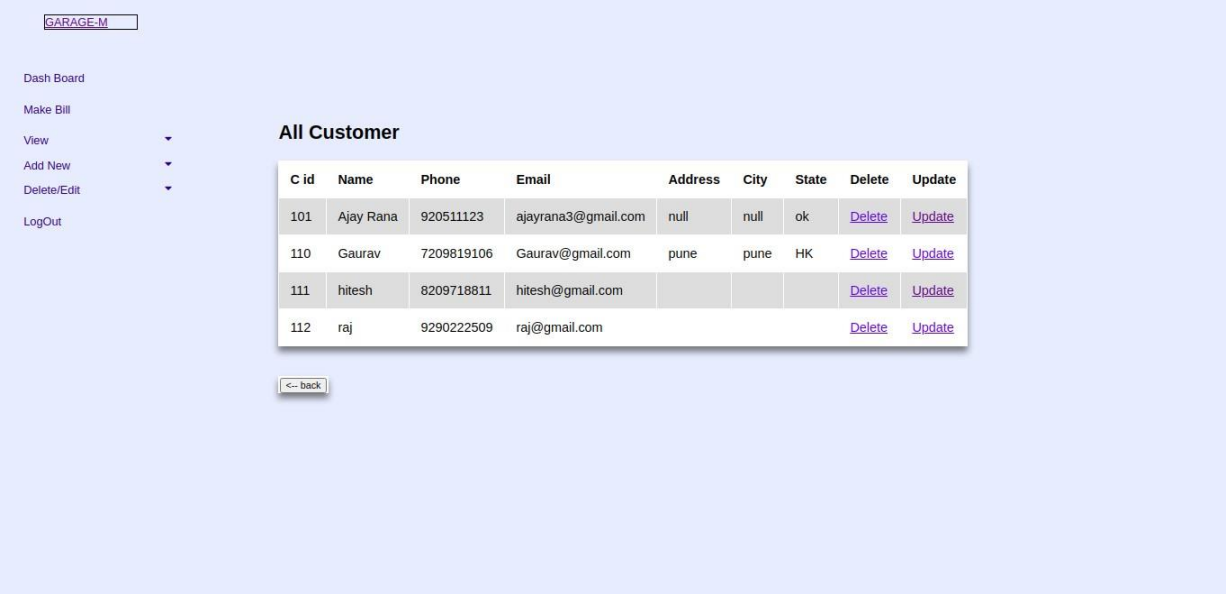
View Bills

Bill Id	User Id	Vehical Id	Cost	Generated_Date	Status	Pay Id
1	101	1	1000	2020-11-27 00:00:00	Paid	1
6	101	1	500	2020-12-11 00:00:00	Not Paid	null
9	101	1	null	2020-12-11 00:00:00	Not Paid	null
10	101	1	null	2020-12-11 00:00:00	Not Paid	null
11	101	1	2000	2020-12-11 14:10:15	Not Paid	null
12	110	2	750	2020-12-11 21:04:16	Not Paid	null

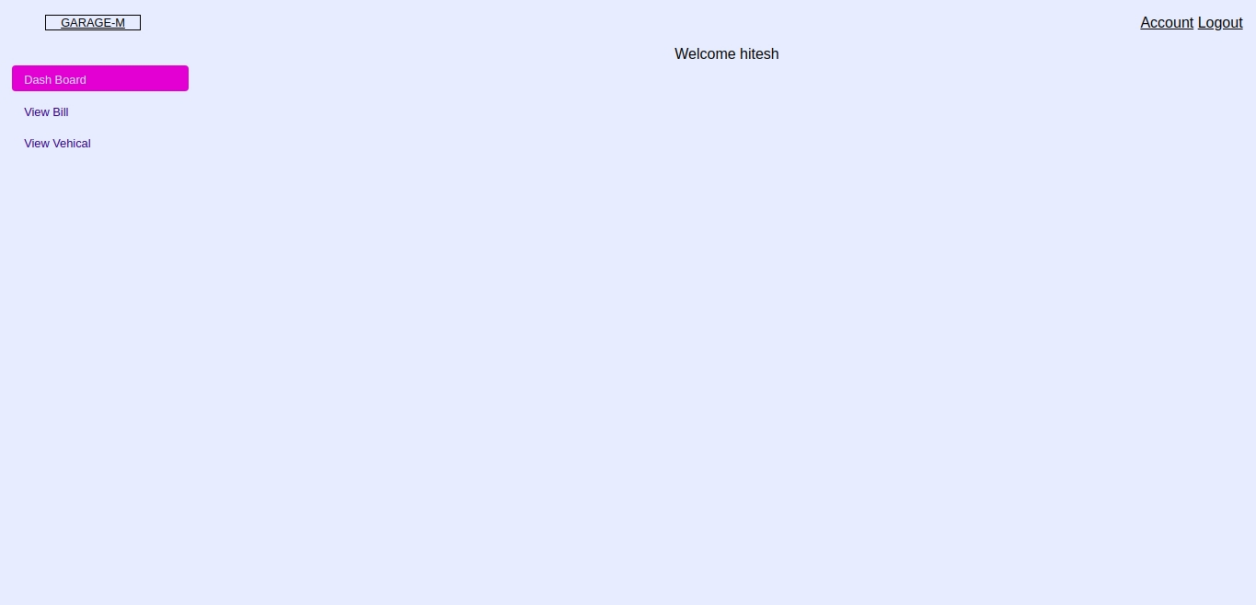
Add New Customer



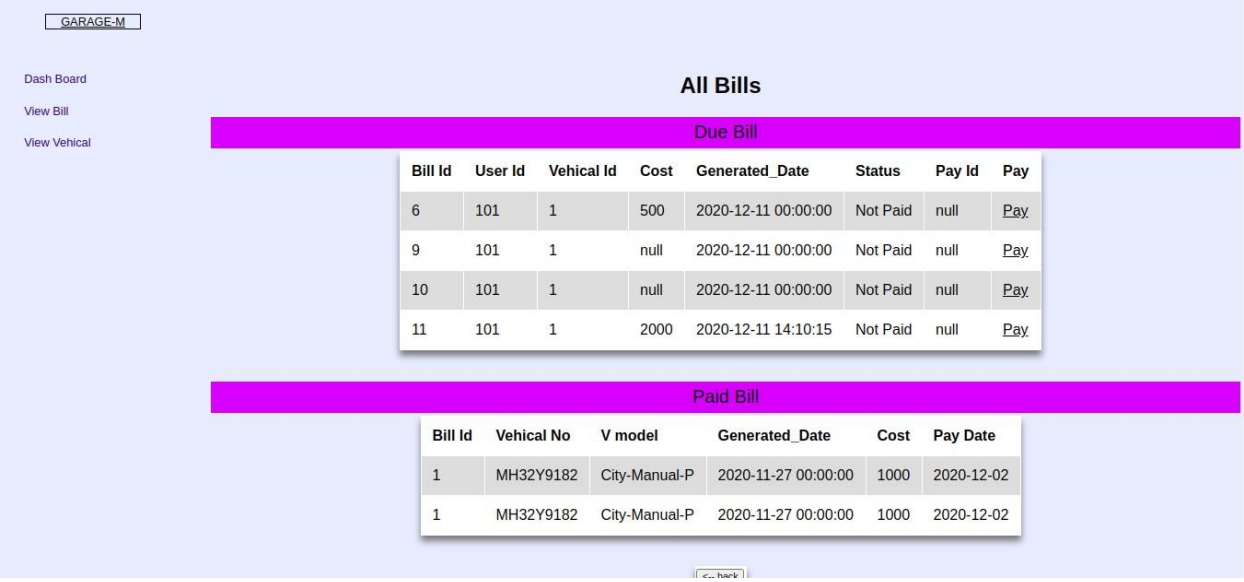
Update/Delete



User Home



Pay Bill



System Implementation

3.1 Hardware & Software Platform Description

Hardware Platform Description

- 1 GB RAM
- 1 GB HDD

Software Platform Description

- Hosted via Ubuntu 20.04 LTS
- Up to date browser

3.2 Tools Used

Frontend:

- JSP
- HTML
- Javascript
- CSS

Backend:

- MYSQL

Server-side:

- Servlet

Server:

- Tomcat 9.

3.3 System Verification & Testing

System is manually tested and verified on many test cases. Bugs have been removed and error handling is also implemented.

3.4 Future Work / Extension

Future Work:

They can use this platform to service their vehicle by trusted service provider.

User will be able to search the garage and request them for service.

In emergency case user can use the Toll-Free number and get quick response.

This can be widely used to facilitate user in all over country since there is no solution for it.

It also promotes the provider business.

We can add where user will be provided a rent based vehicle in case he/she cannot wait till repairing.

User can connect and inform each other help each other in Emergency.nform eachThey can use this platform to service their vehicle by trusted service provider.

Extension:

User will be able to search the garage and request them for service.

In emergency case user can use the Toll-Free number and get quick response.

This can be widely used to facilitate user in all over country since there is no solution for it.

It also promotes the provider business.

We can add where user will be provided a rent based vehicle in case he/she cannot wait till repairing.

User can connect and inform each other help each other in Emergency. other help each other in Emergency.

Conclusion

We have successfully implemented a Full Stack Web Development mini project, with an aim to overcome the drawbacks of the existing system of automobile servicing, this application will provide a platform which facilitate user who wish to take services at the garage as well as in emergency also and will increase its business value .User friendly GUI and quick response will attract the user. It will increase the employee opportunities.

References

1. https://www.w3schools.com
2. https://www.javatpoint.com
3. https://www.vogella.com