Vehicle Assistance

By Group 1

Members – Tamim, Yusuf, Syafiq, Shafi

Lecturers' Name:

Mdm Rohani

Dr. Zatul Alwani

Project Name:	Vehicle failure assistance
Language Used:	PHP
Database:	MySQL
User Interface Design:	HTML, CSS, JAVASCRIPT
Web Browser:	Mozilla, Google Chrome, IE8, OPERA
Software:	Aptana Studio 3, Notepad

DEDICATION

The proponents are dedicating this project to our friends, class mates and lecturers who helped and gave us all our needs doing this web application. For all the hardworking that they just do to finish the project. They gave all the support to us they believe that we can do it they gave us all the guidance and advice, to our friends who helped us and support us finishing the project. We also dedicate this project work and throughout the whole semester to our instructors who never failed to teach and guide us, and most of all to the Almighty God who gives us the strength and good health throughout the whole semester.

ACKNOWLEDGEMENT

With immense please we are presenting "Vehicle Breakdown Assistance" project report as a part of the curriculum of "B.Sc. in Computer Science". We wish to thank all the lecturers who gave us ending support. We express our profound thanks to **Mdm Rohaini** and **Dr. Zatul Alwani**, project guide and all those who indirectly helped us in preparation of this project.

We also like to extend our gratitude to all the staffs at UTM, who provided moral support, a conductive work environment and a special thanks to our parents who are integral part of our project.

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Introduction

Vehicle management system is a web-based application that allows mechanics to access each customer order and provide solutions to vehicle problems. Customers can pick and allows to search Mechanics from different locations. Admin handles and can access the user details as well as the Mechanic's details. Admin has the access to allow/block and view the mechanics. This online mechanic locator saves time and allows quickly to find mechanics in different locations. Hence, saving time and money.

Problem Statement

- Breakdown in rural areas can be worse because the Repair Service is far away.
- Sometimes a Tow Service can be a scam where it demands a large amount of money from the victim to get the car back.

Objectives

- To propose the system that will help the customers to **order** for a Mechanic to his/her location.
- To **design and develop a web based system** for ordering for a mechanic that fits the customers' requirements.
- To **implement** the system by using HTML, CSS, JavaScript and server-side scripting language.

Project Scope

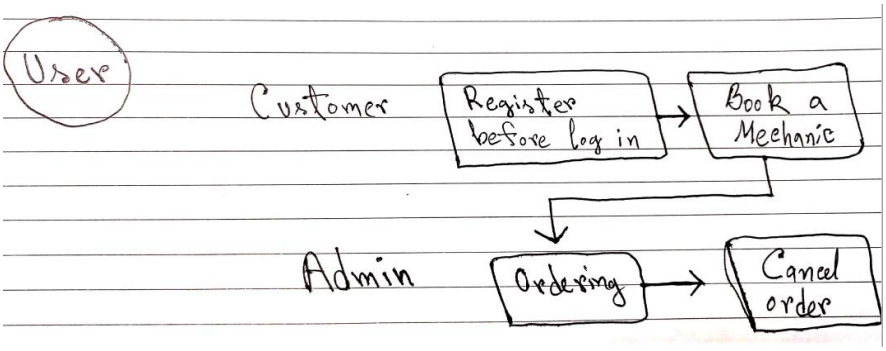

Fig 1. Project Scope

Expected results –

- ✓ Web Based booking system.
- ✓ Avoid overlapping of orders.
- ✓ Help customers to order easily.
- ✓ Notify via email after ordering.

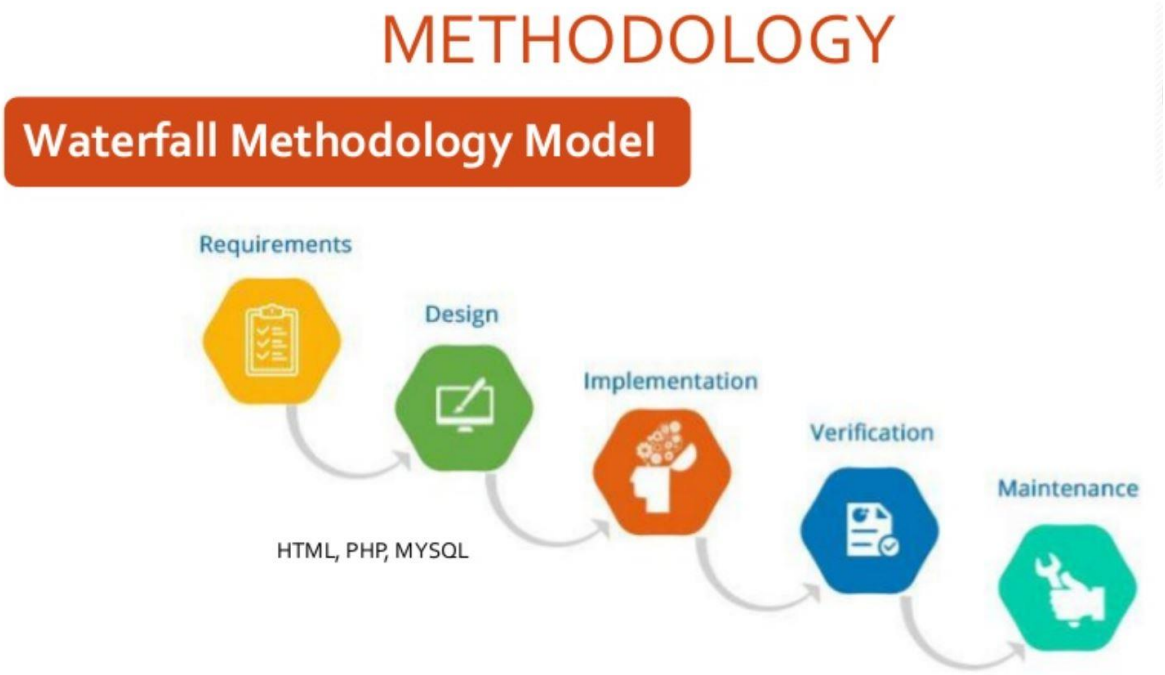

Fig 2. Waterfall model for the system

SYSTEM DESIGN

Fig 3. Levels of Design

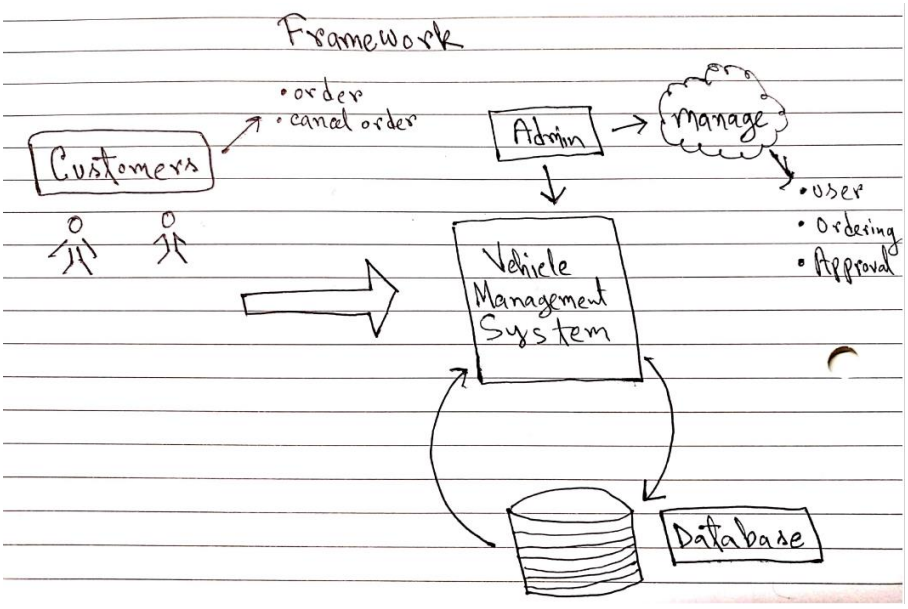

Fig 4. Framework

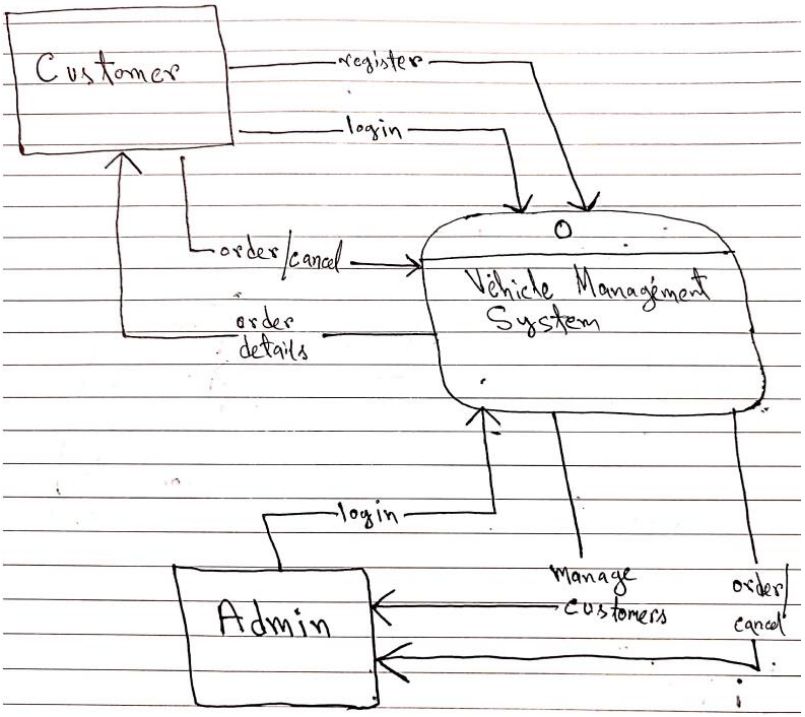

Fig 5. Context Diagram

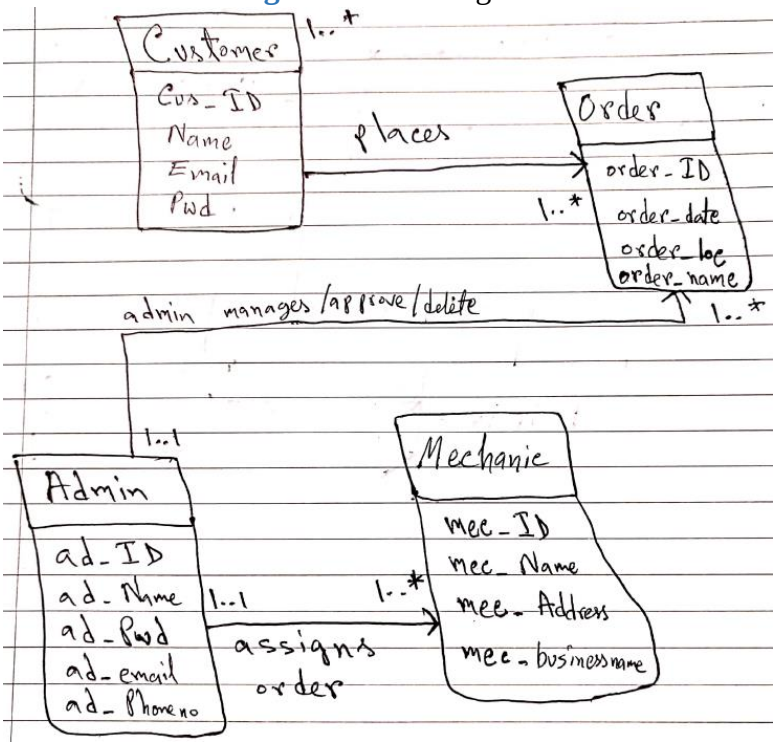

Fig 7. Entity Relationship Diagram (ERD)

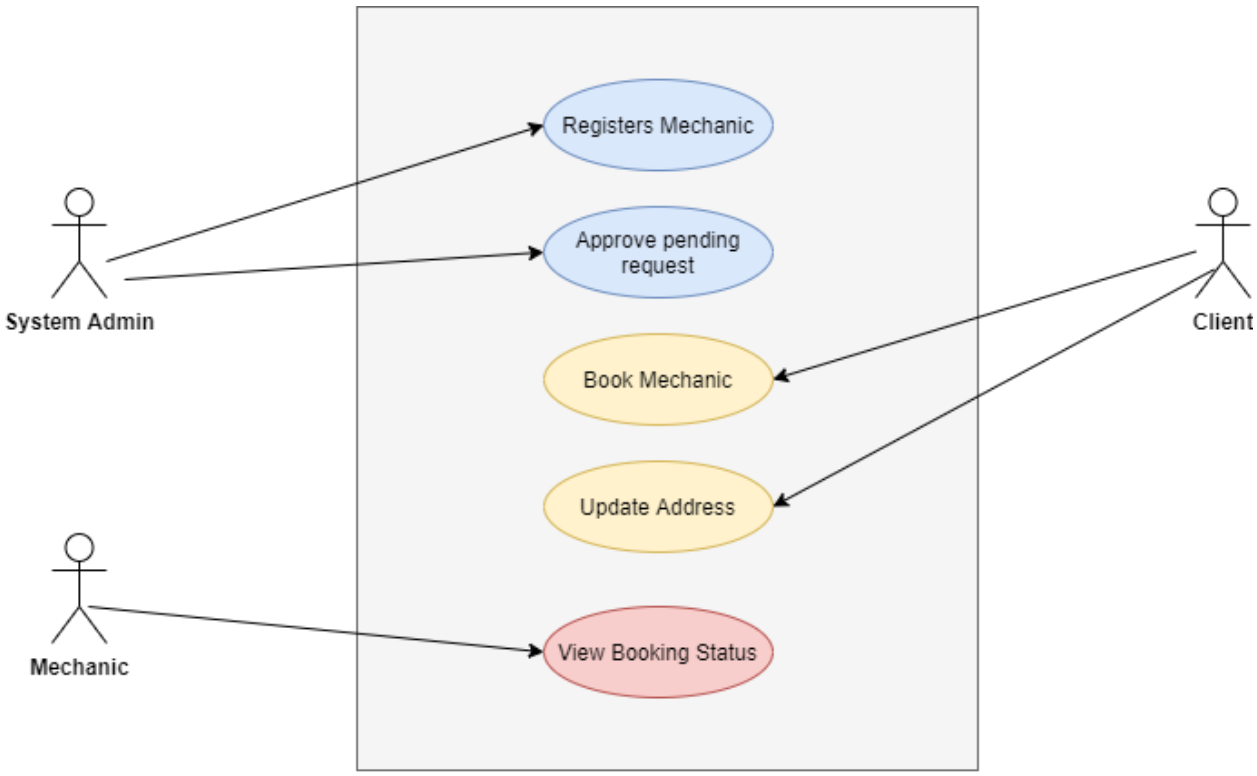

Fig 8. Use case Diagram for the system

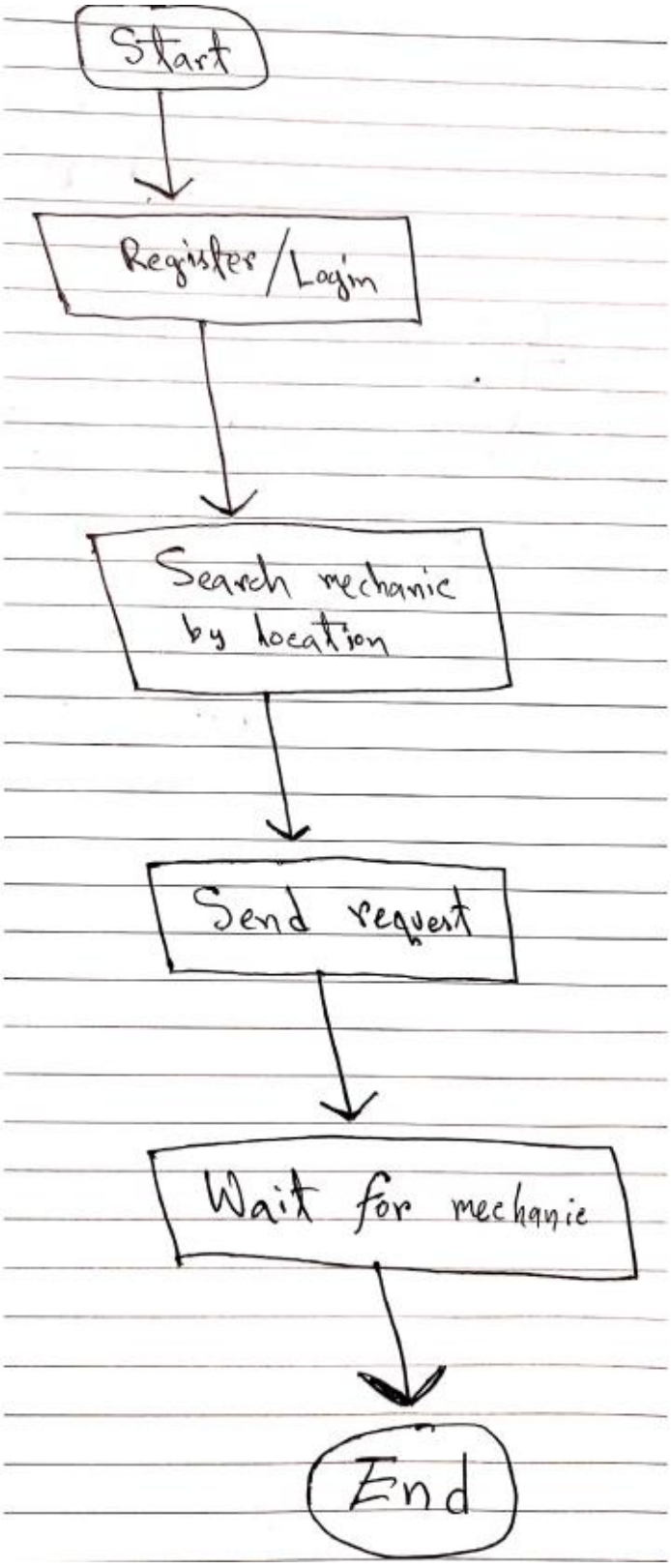

Fig 9. Flowchart for customers

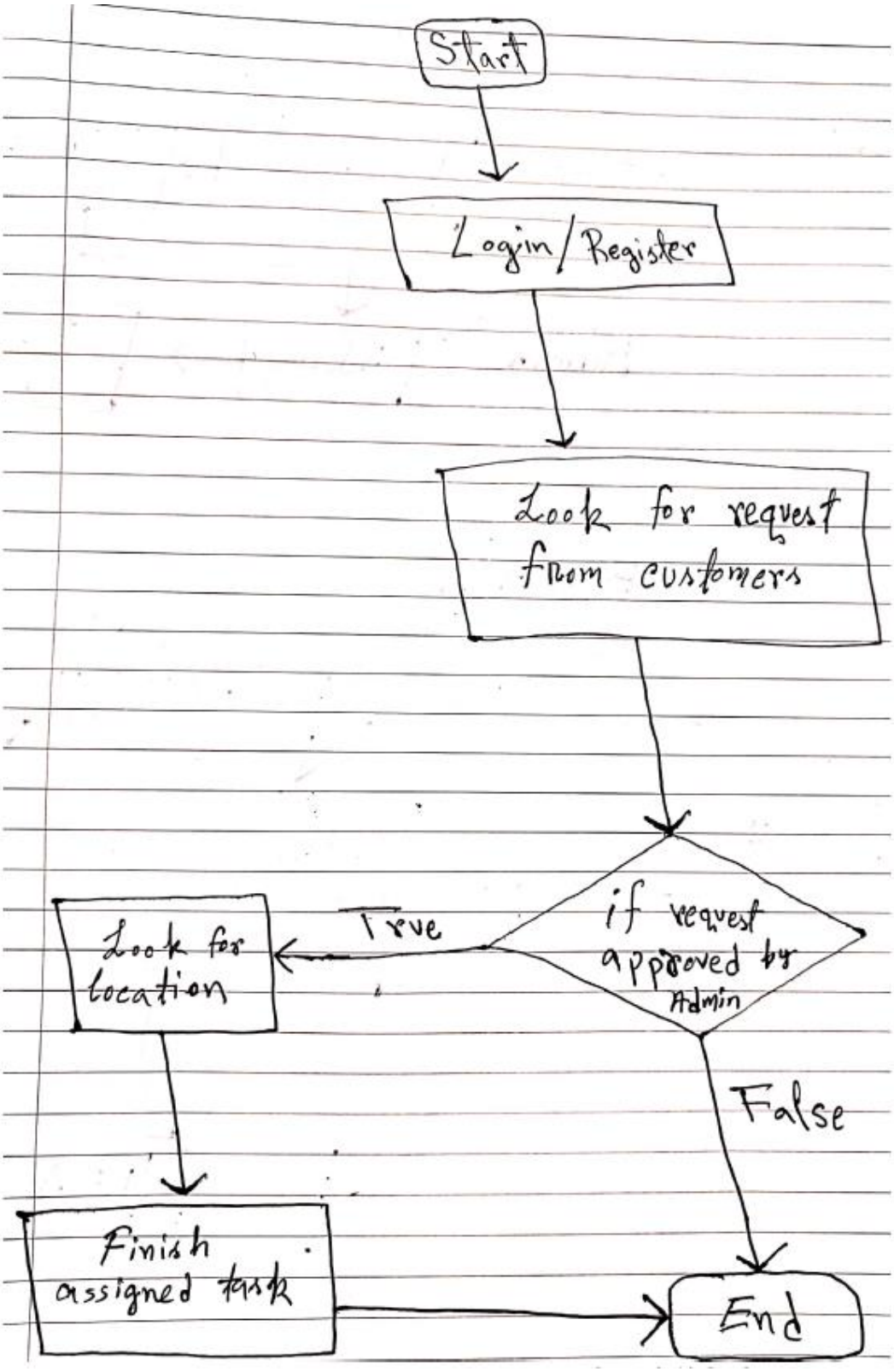

Fig 10. Flowchart for Mechanics

Summary and Implementation

Developed using HTML, CSS, JavaScript and PHP using Aptana Studio 3 and Notepad++. This project has three modules:

1. Customers
2. Mechanics
3. Admin

Registered Users - Customers

Admin will register through the registration page.
After a successful registration user can log in with valid email and password.
After successful login user can do the following things–
Customer can send request to the respective mechanic
View order pending/approval
Update his/her current vehicle breakdown location/address
Logout

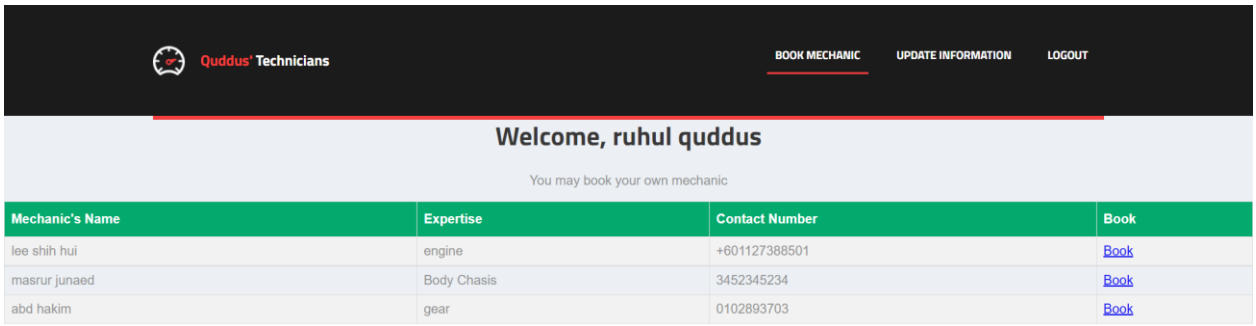

Fig 11. Dashboard for Clients

Registered Users – Mechanic

Register: Mechanics can register with all their information.
Login: Registered mechanics will be provided access to Login only if the Admin will allow or block.
View Request: Mechanics can view the request which is sent by the user.
Feedback: Mechanics can provide their own feedback after successfully working.

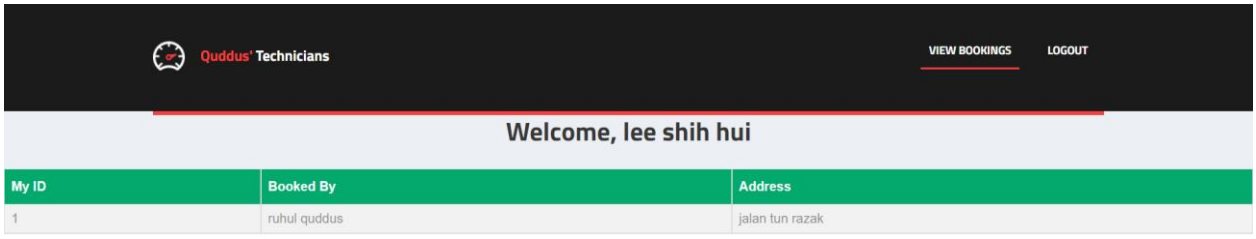

Fig 12. Dashboard for Mechanics

Admin

Admin is the super user of the website who can manage everything on the website. Admin can log in through the login page

Admin Features–
Admin can approve the pending approval
Admin can manage the details of registered users – Customers and Mechanics
Admin can also update the page content
Admin Dashboard (Admin can view the count of registered users, total queries, etc.)
Change Password (admin can change own password)
Logout

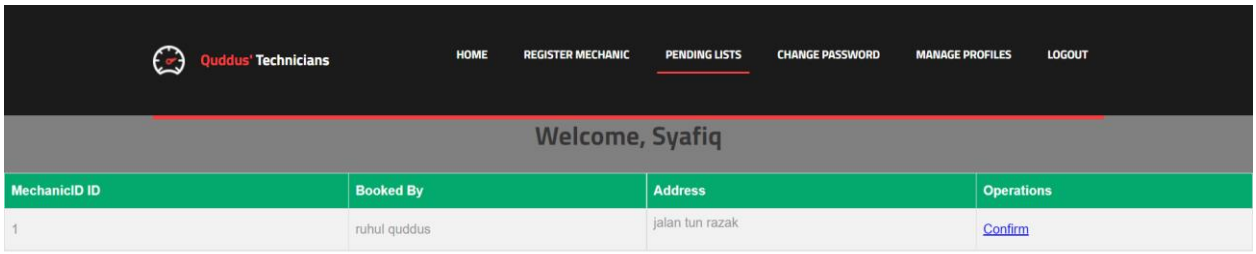

Fig 13. View for Admin from pending lists

We have used Aptana Studio 3 for developing this project. Besides that, some of our team members have used Notepad++. We have used phpMyAdmin for the databases. We used PHP 5.0 with a MySQL database using MySQLi extension which is the improved version of MySQL. We program or query database using MySQLi procedural APIs. We have utilized the usage of sessions and cookies to store the variables like username of the user. For our project, we have the database consisting of 4 tables to store the information about admin, customers and mechanics and their information of booking.

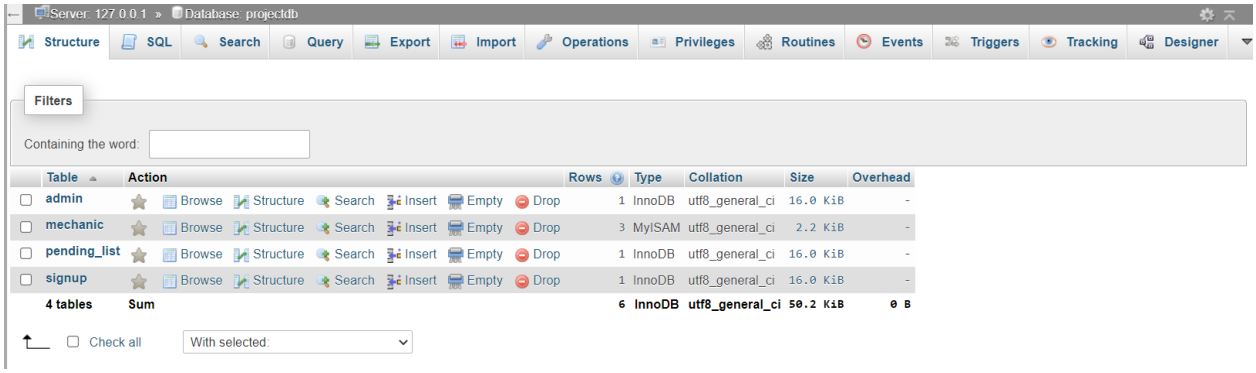

Fig 14. View of database from phpMyAdmin

Conclusion

In this project, we presented the design and implementation of web application called Vehicle Failure Assistance, with which mobile users can get travel related service information they need anytime and anywhere.

Problem-based learning tend to be characterized by working collaboratively in our groups, with learning centred on problems relevant to the domain of our study and much time spent on self-directed learning. In Problem based learning, I've learned about team working by solving problems and reflecting on our experiences. As for myself, I am glad that I can be in this group, the teammates help me to understand the project even better, and the discussion helps me to get better knowledge. I learned how to make some diagrams correctly thanks to them, and we distributed the works fairly, so it doesn't feel too hard. Allowed me to learn and grow personally and professionally alongside them, as well as gave me independence to pursue my own interests. We communicate in WhatsApp for our group and present our work on skype. Overall, through this team work I am able to obtain more knowledge and understand the project and problem solving assessment even better.

References

- ✓ Monica, 2018. A Car Breakdown Service Station Locator System. INTERNATIONAL JOURNAL OF ADVANCE SCIENTIFIC RESEARCH, 3(4), pp. 13-16.

- ✓ Best breakdown cover 2015. Available from: http://www.autoexpress.co.uk/car news/driver-power/92413/best-breakdown-cover-2015

Project Team Members

Member Name	Role	Task	Status
MD Yusuf Bin Forkan	UI/UX Designer	Full Design of website using CSS	✓ Complete – 7hrs.
Ruhul Quddus Tamim	Backend Developer	Programmed PHP, connecting database and performed query e.g. CREATE, INSERT, UPDATE, DELETE. Full functional and making all the operation online	✓ Complete – 13 hrs.
Shafi Ahmed	Lead Engineer	JS DOM to validate all forms, making the HTML dynamic	✓ Complete – 8 hrs.
Syafiq Ibnu Ramadhan	Secretary	Developed the skeleton of the website using HTML	✓ Complete – 6 hrs.

Fig 15. Happy Working!