

 UTM <small>UNIVERSITI TEKNOLOGI MALAYSIA</small> <small>RESEARCH UNIVERSITY</small>	SCHOOL OF COMPUTING FACULTY OF ENGINEERING UNIVERSITI TEKNOLOGI MALAYSIA
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PSM 1 (SCSx 3032) PROJECT PROPOSAL FORM

Session/Semester:2022/2023-2.....

Instruction: Please complete and submit this form to the departmental PSM committee. The proposal must be reviewed by the supervisor before submission.

SECTION A: STUDENT INFORMATION

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Year/Course	3/SECJ		
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Proposal No.

*(Please follow your preference. Proposal No. 1 – the highest priority, followed by
1. Proposal No. 2 Each student may propose a maximum of 2 topics).*

SECTION B: PROJECT DETAILS

Supervisor Name:	DR. MOHD SHAHIZAN OTHMAN
Project Title:	MI E-Auto: A Centralized System for an Automotive Service center

Problem Background and Proposed Solution:

Problem Background:

Mapiz International is an automotive workshop that provides car repair services and also sells automotive parts on both pre orders and availability. But Mapiz has been facing some problems with the business lately. Some of the problems identified are:

1. Due to Exceeding number of customer, and workload they cannot always provide service in time. So they are facing timing management issues as well. It is also resulting them in losing customers, service loss and customer dissatisfaction.

2. Since Mapiz is having good number of repeat customers, they Cannot always keep up with recording or storing of old or existing car owners servicing history or details as they are storing these data in a manual way.
3. Lack of car parts availability, parts delivery timeout and delay, car parts delivery issues, lack of pre ordering car parts for designated customers based on specific car models and specific car parts, fetching car parts from different shops and places due to unavailability causing much waste of time.

Proposed Solution:

We propose on developing a centralized webpage for Mapiz Internation Automotive that will have the following features:

1. User Interface Design: The first step would be to create an interface for website that is user-friendly. This design ought to be user-friendly, responsive, and intuitive on many devices.
2. Appointment Booking System: Provide a system that enables people to schedule appointments for auto maintenance. Users should be able to choose the service they need, the day and time they want to visit, and any other necessary information using the system.
3. E-commerce Integration: Integrating an e-commerce platform into the website that allows users to purchase products such as spare parts, accessories, and other car-related products will help both seller and consumers. Customers will be able to order online from any place and they will have both delivery and pickup options.
4. Record Keeping: Developing a customer record keeping system will help the automobile workshop owner to store and track all the customers data along with their previous service history. This system should also be able to generate reports that provide insights into the workshop's performance.
5. Chatbot Integration: Integrating a chatbot into the website will assist users with their queries and help them navigate through the website. The chatbot can also help users with any technical issues they might face while using the website.

Objectives:

1. Ensuring customer satisfaction, proper time management and eradicating service loss through Slot booking and customer priority managing with proper scheduling using a centralized system.

2. Ensuring the Fixed customers or old customers servicing history requirement are stored and gathered for future servicing aspects.
3. Increasing automotive accessories sales through Added feature of online based shop integrated to the system for ordering, preordering, delivery, car parts placement, fetching specific parts based on specified car modifications and so on.
4. Ensuring user satisfaction by integrating a chatbot that will assist the users with queries and also help with technical issues if faced.

Scopes:

1. Creating a web application with an easy-to-use interface that enables users to simply make appointments for car repair and buy items from an online store.
2. Creating a database structure that can include all the information required, including user data, appointment information, service details and so on.
3. Implementing a system that allows users to schedule appointments based on their preferred date and time. The system should also have features such as appointment confirmation, rescheduling, and cancellation.
4. Creating a secure payment gateway-enabled online store where customers can explore products, add them to their carts, and make purchases. Also, the system ought to contain functions like order history and tracking.
5. Creating a system that allows the automobile workshop owner to record Customer details and history.
6. Implementing a system for user management, including user authentication, registration, and profile management

Project Requirements:

Software	:Visual Studio Code, Github, Xampp etc....
Hardware	: ...Laptop, PC, Keyboard, Mouse etc.....
Technology/Technique/ Method/Algorithm	: React JS, Laravel, SQL, HTML, CSS etc.
Network Elements	: Mobile Data, Wi-Fi.....
Security Elements	: ...None

Project Type: *(Please tick one)*

☒ System Development

☐ Research

Project Area:

Area : Web Based.....

(e.g.: Security – Cryptography)

SECTION C: STUDENT ACKNOWLEDGEMENT

I confirm that this project is:

☒ My own idea

☐ Proposed by the supervisor.....

Date:

.....6/4/2023.....

Student Signature:



SECTION D: SUPERVISOR ACKNOWLEDGEMENT

I confirm that I have reviewed this student's project proposal and therefore agree for the proposal to be submitted for evaluation.

Date :

Signature :

Official Stamp

SECTION E: EVALUATION PANEL APPROVAL

Outcome:

☐ Full Approval

☐ Conditional Approval (Minor)

☐ Conditional Approval (Major)

☐ Fail

Notes *(Please state reasons for conditional or failed approval)*

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Evaluation Panel:

1.

2.

Date:

Signature:

Name:

SECTION F: FOR FACULTY COMMITTEE ONLY

Date Received:

Signature : (Official Stamp)