UNIVERSITI TEKNOLOGI MARA

BACHELOR OF COMPUTER SCIENCE (HONS.) (CS230)

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

UiTM Kampus Kuala Terengganu

Project Proposal

Title: TBA

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Course Code	**: ICT502**
Course Name	**: Database Engineering**
Semester	**: Oct 2024 - Feb 2025**
Lecturer Name	**: Mohd Hanapi Abdul Latif**

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Date of Submission:	**14 November 2024**

Proposal Rubric

ITEM	MARKS	GROUP MEMBERS
Table of Content (2 Marks)	2	CLASS: MEMBERS:
Company Background (3 Marks) **2 Marks** If the company background is presented	2	
Problem Statement (10 Marks) **1-5 Marks** If they did not state that the current system is Manual or File-based Approach. **6-10 Marks** If they state that the current system is Manual or File-based Approach with some relevant sub problems because of the manual system.	6	
Objective (10 Marks) **1-5 Marks** If they state the system objective **6-10 Marks** If they state that they want to design, develop and test as the objective.	8	
ERD (20 Marks) **Rubric for ERD:** **Entity 4** **Attributes 3** **Relationship 3** **Relationship Name 2** **Cardinality/Modality 2** **Inheritance 2** **Recursive 2** **Bridge 2** **TOTAL 20 Marks**	16	
3NF Relational Schema (5 Marks) **1-3 Marks** if the entity and attributes are not fully presented	4	**TOTAL MARKS:**

4-5 Marks if ALL the attributes and entities are presented.		50

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Company Background

With the increasing amount of e-hailing businesses in Malaysia, taxiing and chauffeuring has slowly fallen down the ranks when it comes to motives of transport. Despite this, there are times where a designated driver is needed where chauffeurs shine out the most. Chauffeurs are hired for a number of reasons including short-length long distance journeys, VIP transports and even as a means of convenience when working in urban places.

Moore's Mobiles is a company that specializes in providing a driver for anyone, anytime and anywhere as long as the driver was booked prior to the day of the event. There are a number of drivers under their payroll and many more cars which are stored across Malaysia in company owned storage facilities. The CEO, Mr. Moore himself has found great success in this business but he is looking to further streamline the process of booking a vehicle for his clients which include businessmen, families and foreign owned companies which do business here in Malaysia.They would usually have to contact one of Mr. Moore's agents to get a hold of a driver to which the recipient must manually assign a driver to the client. This old fashioned system has hindered the growth of Moore's Mobiles which leads to requests for this system's database.

This system's domain would be close to that of an ordinary booking system but would also dabble in management. The choice of choosing the best driver usually eats up time since different drivers have different expertise and clients might not be able to settle for surface level provisions. To illustrate this, there could be three drivers available, two of which drive sedans and one drives an MPV. If the client is a businessman, he would most likely prefer a comfortable car and he would most likely be moving about in the city. By settling for one of the three drivers at random, the likelihood of the client appreciating the services the most is rather slim which is why one of the two sedan drivers must be compared to see who suits the bill better.

Safe to say, the idea of being able to choose the best or second best driver is important in maintaining customer satisfaction in this field of business. This is especially the case when the drivers are promoted to be those which are top of the line.

2. Problem Statement

The main issue of the current system is that Moore's Mobiles is very manually managed by a team of workers in an office. This leads to a multitude of different problems which stem from this old way of management.

The main issue would be the inability to keep track of everything all at once. Some information may slip up here and there. For example, a driver could be assigned a job in Kuala Lumpur while he is outstationed in Johor. A sick worker could also be assigned by accident which will lead to heavy inconveniences for the clients. Keeping track of which cars are under service is also very crucial since this could give us an estimate to when a car is available to be used by a driver. Drivers are also important to keep track of for example, a worker could be outstationed or are on leave. Their licenses also matter especially when it comes to assigning them a vehicle.

Human error is also prone to happen when managing a system manually. The loss of data such as bookings and driver documentations would be detrimental to the flow of the managerial side. Misbooks could also happen for example, by referring to the date wrongly or by assigning an unavailable driver due to vehicle servicing and such. Driver's pay is also important since different drivers have different rates they go by. Making such an error here will impact the worker's effort and loyalty to the company itself.

System objective

I. **To identify the current process and problems related to the current system**

Assess the current system in use at Moore's Mobiles and identify its weaknesses and strengths. The weaknesses include loss of data and proneness to human errors.

II. **To design a system which assists the management team**

Create a system that keeps track of the drivers and cars under the company. Each car could have its service period and each driver may have different licenses for different situations.

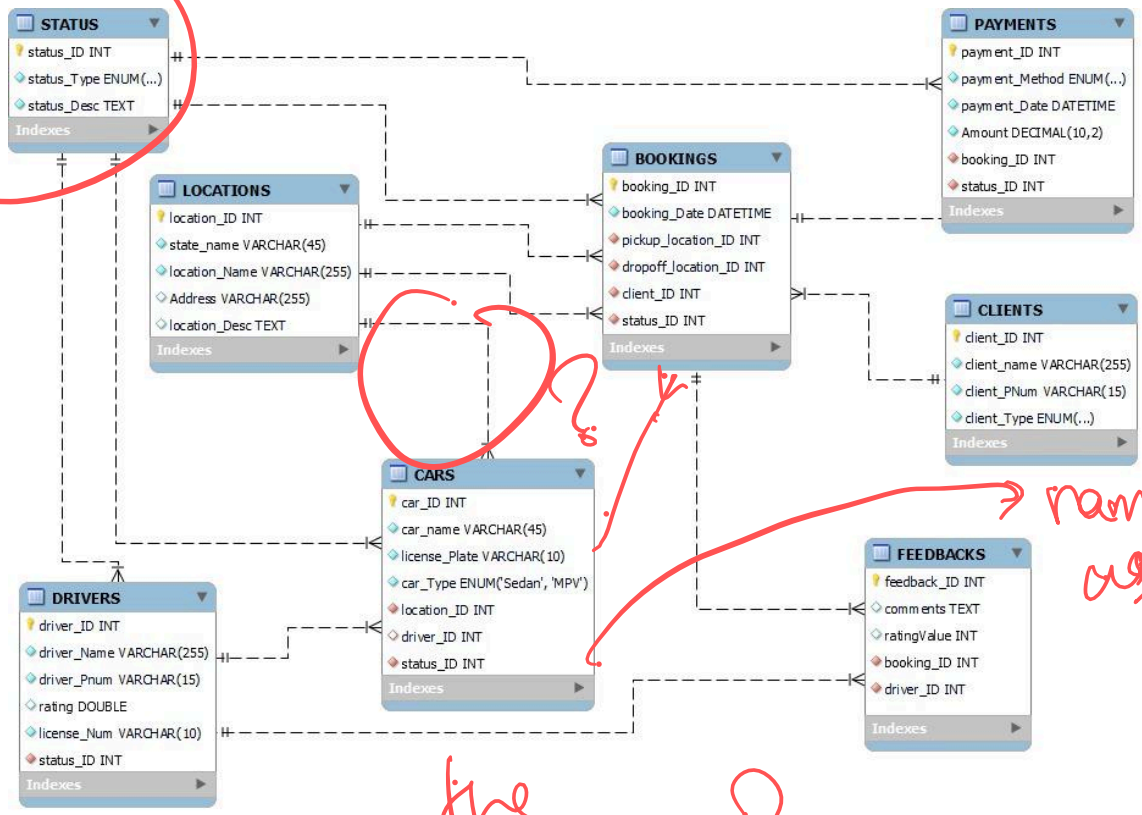
III. **To develop a system that provides the best match for every booking**

Implement a system that is able to keep track of the business side of the company which includes the bookings being made by clients across Malaysia. The system needs to provide the best option for the client and offer an express option for late bookings.

IV. To test the system to ensure it is up to standard for the company

Make sure the system does not lack the needed components requested by the company. The system must also be bug free to ensure a smoother user experience and guarantee customer satisfaction for all parties.

4. **ERD**



what the purpose of this entity?

name of the system?

name of us variable

- how booking fee is calculated & where this fee store?

- put relationship name, cardinality

3NF Relational Schema

STATUS(status_ID, status_Type, status_Desc)

LOCATIONS(location_ID, state_name, location_Name, Address, location_Desc)

PAYMENTS(payment_ID, payment_Method, payment_Date, Amount, booking_ID*, status_ID*)

BOOKINGS(booking_ID, booking_Date, pickup_location_ID*, dropoff_location_ID*, client_ID*, status_ID*)

CLIENTS(client_ID, client_name, client_PNum, client_Type)

CARS(car_ID, car_name, license_Plate, car_Type, location_ID*, driver_ID*, status_ID*)

DRIVERS(driver_ID, driver_Name, driver_PNum, rating, license_Num, status_ID*)

FEEDBACKS(feedback_ID, comments, ratingValue, booking_ID*, driver_ID*)