

	NAME		
	CLASS		CLO1(P): /100
	SESSION	SESI I: 2023/2024	
	COURSE CODE	DFP50273 – INTEGRATIVE PROGRAMMING AND TECHNOLOGIES	
	ASSESSMENT	PROJECT	
	LECTURER		

CLO1 : Construct the elements of GUI from java package that integrates database for an interactive GUI application. (CP4, PLO3)

TOPIC : 1.2 Build frame windows and menu bars in Java programs
: 2.1 Builds interface using swing components
: 2.2 Organizes Layout Manager
: 3.1 Describe event handling with GUI components.
:4.1 Manipulates JDBC Connectivity
:4.2 Construct SQL query statements using JDBC

DURATION : 15 Hours

INSTRUCTIONS:


The Mersing Polytechnic Cooperative provides vehicle rental services to students, staff, and the public in the Mersing area. This vehicle rental service is a new service managed by the cooperative. To ensure proper management of rental information, the cooperative requires an application that can store all renter information to facilitate searches in case of incidents while renters are using the vehicle rental service.

As a Java freelancer, you and your team are required to develop an information system for the vehicle rental service of the Mersing Polytechnic Cooperative. The rental fee is based on Table 1 below:

Table 1

Types Of Cars	Fee (RM)	Types of Rentals
Viva 1.0 (A)	RM 60.00	Half Day
	RM 110.00	Full Day
Axia 1.0 (A)	RM 65.00	Half Day
	RM 120.00	Full Day
Myvi 1.3 (A)	RM 70.00	Half Day
	RM 130.00	Full Day
Saga 1.3 (A)	RM 70.00	Half Day
	RM 130.00	Full Day
Bezza 1.3 (A)	RM 80.00	Half Day
	RM 150.00	Full Day
Alza 1.5 (A)	RM 95.00	Half Day
	RM 180.00	Full Day
Exora 1.5 (A)	RM 120.00	Half Day
	RM 230.00	Full Day
Van Hiace	RM 180.00	Half Day
	RM 350.00	Full Day

Mersing Polytechnic Cooperative also gives a **5% discount** to staff and students rented their vehicles. The requirements of the system as below:

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Customer View:

- Customers can book a vehicle by entering their name, phone, IC number, address, types of cars, types of rentals and any suitable customer information.
- Then, the system will calculate the payment of rental including deposit based on types of cars.
- Customer can edit the booking or delete the booking.

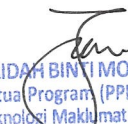
Table 2


Types of Cars	Deposit (RM)
Viva 1.0 (A)	RM 70.00
Axia 1.0 (A)	RM 100.00
Myvi 1.3 (A)	RM 150.00
Saga 1.3 (A)	RM 150.00
Bezza 1.3 (A)	RM 150.00
Alza 1.5 (A)	RM 200.00
Exora 1.5 (A)	RM 250.00
Van Hiace	RM 300.00

Manager View: The manager can view booking based on type of car.

The solution to solve the problem should consider the following criteria:

- Build GUI using Swing Components and organizes suitable layout manager. (CLO1:P3)
- The program should have a menu bar with menu item *Introduction and Exit*. (CLO1:P3)
- Create suitable database to store all related data and construct any related SQL query in the operation involved. (CLO1:P4)
- Give actions to the button and menu item. (CLO1:P4)


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Performance Area	ADVANCED 4	INTERMEDIATE 3	BEGINNER 2	WEAK 1	Weightage	Score
Declaration Classes, variables	Able to declare all class using proper, clear, and understandable name AND suitable access specifier perfectly.	Able to declare all class using meaningful name BUT with or without access specifier.	Able to declare class using vague class names BUT with access specifier.	Able to declare class using vague class names AND without access specifier.	5	
	Able to declare ALL variables correctly according to the question.	Able to declare some of the variables correctly according to the question.	Able to declare some of the variables correctly according to the question.	Able to declare variables BUT most of the variables NOT according to the question.		
Elements of Swing components	Able to design suitable components for every element in the page related to the theme.	Able to design elements of components in the page with some unsuitable components and related to the theme.	Limited design of components in the page and related to the theme.	Able to design component but not related to the theme.	10	
Working with Panel	Able to create all panels and border layout correctly according to the questions with additional specifications.	Able to create most of the panels and border layout correctly according to the questions with correct.	Able to create some of the panels and border layout correctly according to the questions.	Able to create only a panel but not according to the questions.	15	
Event Handling	Able to declare ALL of event handling AND definitions of event handling are perfect and contains all the task correctly based on component use.	Able to declare most of event handling AND definitions of event handling contains some tasks correctly based on component use.	Able to declare some of event handling AND some definitions of event handling are partially complete based on component use.	Able to declare limited event handling BUT not able to define event handling based on component use.	15	
Database Connection & SQL Statement	Able to create a database and a table with functional connection. ALL SQL statement is correct and function.	Able to create a database and a table with functional connection AND. Most SQL statements are correct and function.	Able to create a database and a table with functional connection AND. Some SQL statements are correct and function.	Able to create a database only BUT connection is not working AND SQL statement is not function.	20	
Program Code	The student creates programs which show a thorough understanding of the programming concepts and theory. High understanding.	The student creates programs which show considerable understanding of programming concepts and theory. Medium Understanding	The student creates programs which show some understanding of programming concepts and theory. Low Understanding	The student creates programs which show limited understanding of Programming concepts and theory. Very Low Understanding	10	
Output Creativity	Excellent ideas, creative and inventive.	Good ideas, creative and inventive.	Moderate ideas, creative and inventive.	Fairly creative ideas and inventive	15	
Program Compilation and Execution	Able to compile and execute the program with expected output.	Able to compile and execute the programs with unexpected output.	Able to compile the program with minor errors.	Program is not working.	10	
* Zero (0) mark will be given if students do not answer / perform the criteria needs					100	

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