



اَوَّلُ رِسَالَةٍ تَكُونُ لَوَيْكِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

Cawangan Kedah
Kampus Sungai Petani

UNIVERSITI TEKNOLOGI MARA

KEDAH BRANCH

SCHOOL OF INFORMATION SCIENCE

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

DIPLOMA IN INFORMATICS LIBRARY

(CDIM144)

ASSIGNMENT INDIVIDUAL: CAR BOOKING SYSTEM

IML 208: PROGRAMMING FOR LIBRARIES

PREPARED BY:

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GROUP KCDIM144 3E

PREPARED FOR:

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SUBMISSION DATE:

WEEK 10

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Course Code : IML208

Programme Code :-

Faculty / Campus : UiTM Kampus Sungai Petani

ACKNOWLEDGEMENT

Assalamualaikum w.b.t,

Firstly, thankful, and grateful to Allah for giving the strength to complete this assignment. I as a part of the student from CDIM 144 Library Informatics, especially in class KCDIM144 3E would like to thank to lecturer who taught this class, namely Sir Mohd Firdaus Bin Mohd Helmi. All the advice and guidance she has poured out helped me and my fellow colleagues to conduct this assignment smoothly.

Apart from that, I would like to thank my classmates who helped me complete this assignment. They always answer my questions whether it is on group chat, private chat or in class. This really help me reduce doubts about this assignment. Their help is very much appreciated even though they are also busy preparing this assignment.

Lastly, I would like to thank my family especially my parents who support me until I accomplish this assignment. Although they were being apart from me, they continued to provide support and motivation so that I would not give up easily when complete this assignment. Without their motivation and support, I do not think I can complete this assignment smoothly.

Project Name: Car Booking System

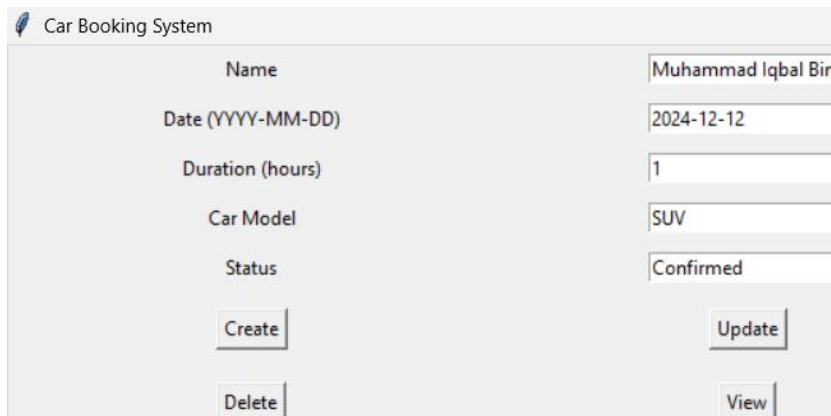
File name: carbooking.py

Prompt Data:

1. Name
2. Date
3. Duration
4. Car Model
5. Booking status

Functions:

1. Create the data:



The screenshot shows a web form titled "Car Booking System". The form contains five input fields with labels: "Name", "Date (YYYY-MM-DD)", "Duration (hours)", "Car Model", and "Status". The values entered in these fields are "Muhammad Iqbal Bin", "2024-12-12", "1", "SUV", and "Confirmed" respectively. Below the input fields, there are four buttons: "Create", "Update", "Delete", and "View".

Field	Value
Name	Muhammad Iqbal Bin
Date (YYYY-MM-DD)	2024-12-12
Duration (hours)	1
Car Model	SUV
Status	Confirmed

Buttons: Create, Update, Delete, View

2. Read the data:

Car Booking System

Name

Date (YYYY-MM-DD)

Duration (hours)

Car Model

Status

Create Update

Delete View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-12	1	SUV	Confirmed

3. Update the data:

Before update the data of customer that booking the car

Car Booking System

Name

Date (YYYY-MM-DD)

Duration (hours)

Car Model

Status

Create Update

Delete View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-12	1	SUV	Confirmed

Booking update successfully

Car Booking System

Name

bal Bin Muhd Suhaimi

Date (YYYY-MM-DD)

2024-12-15

Duration (hours)

3

Car Model

SUV

Status

Pending

Create

Update

Delete

View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-12	1	SUV	Confirmed

Success

Booking updated successfully!

OK

After update the data of customer booking the car

Car Booking System

Name

Date (YYYY-MM-DD)

Duration (hours)

Car Model

Status

Create

Update

Delete

View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-15	3	SUV	Pending

4. Delete the data:

Before delete the data

Car Booking System

Name

Muhammad Iqbal Bin I

Date (YYYY-MM-DD)

Duration (hours)

Car Model

Status

Create

Update

Delete

View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-15	3	SUV	Pending

Booking cancels successfully

Car Booking System

Name

Muhammad Iqbal Bin I

Date (YYYY-MM-DD)

Duration (hours)

Car Model

Status

Create

Update

Delete

View

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-15	3	SUV	Pending

Success

Booking deleted successfully!

OK

No booking is available

Car Booking System

Name	<input type="text"/>
Date (YYYY-MM-DD)	<input type="text"/>
Duration (hours)	<input type="text"/>
Car Model	<input type="text"/>
Status	<input type="text"/>
<input type="button" value="Create"/>	<input type="button" value="Update"/>
<input type="button" value="Delete"/>	<input type="button" value="View"/>

Name	Date	Duration	Car Model	Status
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Conditional Statements: Yes

If, Elif & Else:

```
50 # Main function to prompt user inputs
51 def main():
52     while True:
53         action = input("Choose an action (Create, Read, Update, Delete, Exit): ").lower()
54         if action == 'create':
55             name = input("Enter name: ")
56             date = input("Enter date (YYYY-MM-DD): ")
57             duration = input("Enter duration (hours): ")
58             car_model = input("Enter car model: ")
59             booking_status = input("Enter booking status: ")
60             create_data(name, date, duration, car_model, booking_status)
61         elif action == 'read':
62             read_data()
63         elif action == 'update':
64             name = input("Enter name to update: ")
65             new_data = {}
66             new_data['date'] = input("Enter new date (YYYY-MM-DD): ")
67             new_data['duration'] = input("Enter new duration (hours): ")
68             new_data['car_model'] = input("Enter new car model: ")
69             new_data['booking_status'] = input("Enter new booking status: ")
70             update_data(name, new_data)
71         elif action == 'delete':
72             name = input("Enter name to delete: ")
73             delete_data(name)
74         elif action == 'exit':
75             break
76         else:
77             print("Invalid action. Please choose again.")
```

GUI: Yes

[illegible]

Result: Screenshot

Car Booking System

Name	<input type="text"/>
Date (YYYY-MM-DD)	<input type="text"/>
Duration (hours)	<input type="text"/>
Car Model	<input type="text"/>
Status	<input type="text"/>
<input type="button" value="Create"/>	<input type="button" value="Update"/>
<input type="button" value="Delete"/>	<input type="button" value="View"/>

Name	Date	Duration	Car Model	Status
Muhammad Iqbal Bir	2024-12-12	1	SUV	Confirmed

Strengths:

1. Simple and Straightforward Implementation:

- The code is easy to read and understand, which makes it accessible for beginners and easier to maintain.

2. Modular Design:

- By dividing the functionality into distinct functions (`create_data`, `read_data`, `update_data`, and `delete_data`), the code is well-organized and modular. This enhances readability and makes it easier to debug and extend.

3. Data Storage:

- Using JSON for data storage is a practical choice as it is lightweight, human-readable, and easy to parse. It also allows for easy integration with other systems that use JSON.

4. User Interaction:

- The main function provides a simple command-line interface for users to interact with the system. This allows for easy testing and use without requiring a graphical user interface (GUI).

Kaizen (Room for Improvement)

1. Error Handling:

- **Current Status:** The code does not handle potential errors such as invalid input, file access issues, or JSON parsing errors.
- **Improvement:** Implement error handling using try-except blocks to manage these potential issues gracefully.

2. Data Validation:

- **Current Status:** There is no validation of user inputs, which can lead to incorrect or inconsistent data.
- **Improvement:** Add validation checks to ensure that inputs are valid (e.g., date format, non-empty fields).

3. GUI Implementation:

- **Current Status:** The system relies on a command-line interface.
- **Improvement:** Create a graphical user interface using libraries like Tkinter or PyQt to enhance user experience and make the system more user-friendly.

4. Search and Filter Functionality:

- **Current Status:** The code does not provide options to search or filter bookings.
- **Improvement:** Implement search and filter functionality to allow users to find specific bookings more easily.