UECS1044/1144 OBJECT-ORIENTED APPLICATION DEVELOPMENT ASSIGNMENT

I. Objective

The objective of the assignments is to allow you reinforce learning in analysing the issues of the requirements, design, and implementation of the chosen system listed in Table 1 using Object-oriented approach in Java programming language.

II. Requirements

1. Working on a group of 4 persons, where each group is to develop a working system, based on one of the systems in the Table 1 given below:

Table 1: Reservation/Booking System

a)	Airline/flight management system
b)	Hotel management system
c)	Intercity Coach management system
d)	Cinema/movie management system
e)	Classroom management system
f)	Amusement park management system
g)	Restaurant management system
h)	Concert management system
i)	Sports Club management system
j)	Clinic/doctor appointment management system
k)	Real estate appointment management system
l)	Academic advisory appointment system
m)	E-Hailing system

(Note: Each system is limited to 2 groups based on first come first served basis. Please register your choice using the link below, latest by 4th March 2024)

https://docs.google.com/spreadsheets/d/17bNpKuzM0WE7qf9w1css-L8bC9--u0RuM4ef9B1pr5k/edit?usp=sharing

SCENARIO

You work as a software engineer in a company, IT World and recently involve in a development project pertaining to reservation/booking system. There are many business companies in different sectors such as entertainment, healthcare, transportation and so on, show a great interest in such system to help streamline and manage their business processes. The reservation/booking system must allow the users to perform the following:

- Request/Create bookings
- Update/Maintain bookings
- View bookings
- Cancel bookings
- Search for bookings
- Create user profile

The reservation/booking system is using the object-oriented approach. The system users are the administrator of the business company and the company's client user. Table 1 shows twelve (13) types of reservation/booking systems.

2. Based on the system chosen, each group is required to list down the initial analysis and design of the system according to the requirements below:
   i. Create a set of system requirements specification.
      - There should be **AT LEAST 6 (SIX)** features / functionalities as stated in the scenario above.
      - The purposes and related tasks of each feature / function must be clearly stated and describe.
   ii. Design and draw a complete class diagram with the necessary
      - Notations
      - Relationships
      - Multiplicities

3. Design and implement a console-based application based on the requirements specification created by applying the concept of fundamental and advanced object-oriented features, file handling/database management system and exception handling.

III. Deliverables

	Elements to be included in the group report
Part 1	COVER PAGE – Group member information as attached at Appendix A
Part 2	A set of system requirements specification.
Part 3	A UML Class Diagram (Note: You must use a UML tool (any freeware downloads from internet and state the name and sources of tool) to develop your diagrams.
Part 4	Implement your design based on the class diagram created using Java programming language. • Source code (softcopy-Project Folder) • Sample of input data (softcopy - text file) • Sample output (Screen shot) of your program

IV. Submission

Your submission should include the following:

- Part 1: COVER PAGE (in Microsoft word or PDF format)
- Part 2: A set of System Requirement Specification (in Microsoft word or PDF format)
- Part 3: Class Diagram (in PDF format) Ensure the diagrams are clear and readable
- Part 4: Source code and Sample of input data (Java Project folder), Sample output (in Microsoft word or PDF format)

Save and compress all the parts into a zip file it. Name your ZIP file with the group leader's name (eg: "LeeChongWei.zip"). Submit and upload it to WBLE by group leader before **22nd April 2024, 3pm**. Members do not need to upload.

V. Plagiarism and Collusion

Note that it is important that you do not share your work with members of other groups. The consequence of doing this will result in all groups involved receiving a failing grade for the assignment. Similarly, anyone found to have committed plagiarism or cheating by copying program codes from other sources will also be given a failing grade.

VI. Late Submission

No late submission of assignment is allowed. Assignment received after the due date without valid reasons will be penalized using the following policy: 5 marks will be deducted for every day the assignment is overdue.

Appendix A

UNIVERSITI TUNKU ABDUL RAHMAN

LEE KONG CHIAN FACULTY OF ENGINEERING AND SCIENCE

UECS1144 OBJECT-ORIENTED APPLICATION DEVELOPMENT

GROUP ASSIGNMENT

January 2024 Trimester

NO.	STUDENT NAME	PROGRAMME	Practical Group
1.	(Group Leader)		
2.			
3.			
4.			