

## Assignment 2 (50 marks)

Object-Oriented Programming (OOP) is a programming paradigm centered around the concept of objects, which can be instances of classes. It leverages several key principles to organize and structure software in a more modular, reusable, and maintainable way. These principles include inheritance, polymorphism and etc. The Inheritance method enables the programmer to define a general class (a superclass) and extend it to more specialized classes (subclasses). Meanwhile the Polymorphism method enables objects of different classes to be treated as objects of a common superclass. Suppose you want to design classes to model the SkyHigh Adventures program to manage their booking application better. Improvise the previous procedural programming paradigm for SkyHigh Adventures booking app into object-oriented programming paradigm. The OOP paradigm must include inheritance, polymorphism and encapsulation. Draw the Unified Modelling Language (UML) diagram to illustrate the OOP paradigm of the SkyHigh Adventures Python Program.

Write an Object-Oriented Programming (OOP) with Python program with test program that includes defining objects to be used to invoke the related methods based on the descriptions in Assignment 1 and the UML diagram.

Submit the **PDF file** that contains the OOP codes, and the **.py** file format to UROX by **Sunday 11.59PM on 13 October 2024.**

At the end of the report, list the student's name in the group and the contribution made by each member in a table format as shown below.

Student Name	Contribution made:
1)	
2)	
3)	
4)	
5)	