Assignment 5

# Q1

Multiple inheritance is a feature in object-oriented programming where a class can inherit attributes and methods from more than one parent class. In other words, a class can have multiple superclasses, allowing it to inherit and combine behaviour from different sources. This allows for code reuse and the creation of more complex class hierarchies.

# Q2

Delegation is a design pattern that allows a class to delegate responsibility to another class. This means that the first class can call the methods of the second class to perform tasks.

# Q3

Composition is a design principle in object-oriented programming where a class is composed of other objects as its parts or components. In composition, objects are combined to create more complex objects with specific functionality. The composed objects are typically referenced as instance variables of the class and can be created and managed independently.

# Q4

Bound methods are methods that are associated with a specific instance of a class. When a method is called on an instance, the instance is automatically passed as the first argument (usually named self) to the method. This binding of the method to the instance is done automatically by the Python interpreter. Bound methods allow access to the instance's attributes and provide a way to perform operations specific to that instance.

# Q5

Pseudoprivate attributes are attributes that are prefixed with an underscore (\_). These attributes are not truly private, but they are generally not accessed by other code. Pseudoprivate attributes are often used to store implementation details of a class.