

Object-Oriented Programming

Task 8.1: Semester Test

Name: Tran Quoc Dung

Student ID: 103803891

Question 2:

Abstraction:

Abstraction is one of the key concepts in OOP, which refers to the process of hiding some aspects and giving the user only compulsory information that they need to know. For example, in the semester test, the purpose of the function is to only show whether objects are included in the library (HasResource), which can require only the name of the objects. Whereby, many other information of the books or games are hidden, or abstracted.

Polymorphism:

Polymorphism means “many forms” and we use this when we have many classes related to each other by inheritance. Like written before, we can inherit properties and methods from another class using inheritance. These techniques are used by polymorphism to carry out various tasks. This enables us to carry out a single activity in various ways. This can be seen in the LibraryResource, Game and Book classes in the semester test, where Games and Books can be regarded partly the same as LibraryResource, by inheriting the methods or functions from it.