**Programming 2 Project**

# Grading -

**First Progress (5-6) max 20 minutes 10%**

* Idea and classes planning – Store management
  + At least the super class have to be done – Main Window
* Object oriented concept -   
  Abstraction. Abstraction means using simple things to represent complexity. We all know how to turn the TV on, but we don’t need to know how it works in order to enjoy it. In Java, abstraction means simple things like objects, classes, and variables represent more complex underlying code and data. This is important because it lets avoid repeating the same work multiple times.

Encapsulation. This is the practice of keeping fields within a class private, then providing access to them via public methods. It’s a protective barrier that keeps the data and code safe within the class itself. This way, we can re-use objects like code components or variables without allowing open access to the data system-wide.

Inheritance. This is a special feature of Object Oriented Programming in Java. It lets programmers create new classes that share some of the attributes of existing classes. This lets us build on previous work without reinventing the wheel.

Polymorphism. This Java OOP concept lets programmers use the same word to mean different things in different contexts. One form of polymorphism in Java is method overloading. That’s when different meanings are implied by the code itself. The other form is method overriding. That’s when the different meanings are implied by the values of the supplied variables. See more on this below.

* Program Flow planning – Flow chart, gantt chart, dataflow diagram
* Slide 1: Concept and Idea- Store management ( STORE ERP) like 7-Elevel or Family Mart

**Second Progress (7-8) max 20 minutes 10%**

* Classes (objected oriented)
* Explain how you used the concept of object-oriented programming
* Slide 2: Modeling Classes

**Third Progress (10-11) max 25 minutes 10%**

* How program is using classes
* Explain how you implemented the object oriented into your program
* Slide 3: Implementation

**Final Presentation (12) max 30 minute 30%**

* Show running program
* Explain how did object oriented programming is being useful in your work, what would happen if you did not use it
* Slide 4: Explain all your progress and compare what you say and what you have, is it different? Why? Why not?

# Requirement

|  |  |
| --- | --- |
| **Item** | **Minimum No.** |
| Class | 6 |
| Inheritance | 3 |
| Composite | 5 |
| Interface | 3 |
| Array/Array List | 2 |

Project list you could choose from, all project can be console based. For number 1-3 only 2 group maximum per choice.

1. Game (RPG type would be easiest to work on object-oriented)
2. Hotel booking system (think of Agoda)
3. Flight Booking system (think of Expedia)
4. Choose your own (have to let me approve by second class of week 2)

**GOOD LUCK!**