## Week 5 Research on OOP

The four pillars of Object-Oriented Programming are:

Encapsulation, Inheritance, Polymorphism, Abstraction.

The relationship between a Class and an Object is that a Class is a template or a blueprint for Objects, whereas, an Object is an instance of a class. Furthermore, we can say an Object is from a Class and displays the property and behaviors that were defined by the Class.

In Java, there are two types of exceptions: checked and unchecked.

<u>An exception</u> is that the normal flow of the program's instructions is interrupted by an event that occurs during the execution of the program.

<u>A checked exception</u> is like a signal that something unexpected might happen in the code, and the programmer needs to handle it in some way. The compiler makes sure that the code includes a special block to handle this type of exception, so the program doesn't just crash when it occurs. Checked exceptions usually represent things that can go wrong but can be managed by the programmer.

<u>An unchecked exception</u>, on the other hand, is also a type of problem that can happen, but it doesn't need to be explicitly handled by the programmer. The compiler doesn't force the programmer to write special code to deal with these exceptions. Unchecked exceptions are usually caused by mistakes in the program or unexpected errors that are difficult to predict or control.

## Source:

https://rollbar.com/blog/how-to-handle-checked-unchecked-exceptions-in-java/#:~:text=To%20s ummarize%2C%20the%20difference%20between.as%20it%20states%2C%20at%20runtime.