**What are the four pillars of Object-Oriented Programming? Explain each pillar.**

**Abstraction**.

Abstraction is the concept of wrapping up complex actions in simple verbs. Abstraction allows you to hide complexity. It is a very generic description. In the video it referred to it as a “30000-foot view”. The example was the abstraction for vehicles was how cars, planes, boats all move.

**Encapsulation**.

Hiding the details how a method works. Example was you didn’t need to understand how a motor works in a car to know how to drive it.

**Inheritance**.

Allows objects to inherit properties and functionality. Parent and base class can pass its properties or functionality down to another class.

The other classes are referred to as child classes. Child classes will inherit all of the properties and functionality of the parent class. Child classes can then choose to overwrite some of those if necessary.

**Polymorphism**.

Polymorphism is something that can take multiple different forms. Animals use different methods or ways to communicate. The functionality of how animals communicate are different.

**What is the relationship between a Class and** **an Object?**

You use Classes to group our code together in a logical way to represent objects. Objects can be created from classes.

Classes are like blueprints for objects to be created from.

An Object is an instance of a class.

One of the best examples used in the video is they referred to a blueprint was a blueprint. It could be used to make a house, but it is not a house.

**What is your favorite thing you learned this week**?

I noticed another shortcut for making notes when coding. Instead of using “//” for each line. You can use “/\*” at the beginning and “\*/” at end. This would be good for long notes or paragraphs.

References:

Week 5 videos.

<https://backend.turing.edu/module1/lessons/four_pillars_of_oop>