**Week 5 Research Assignment**

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**What are the four pillars of Object-Oriented Programming?**

The four pillars of Object-Oriened Programming are:

1. Abstraction: Showing only the essential features of an object to a user and not providing other irrelevant information. For example, to run your microwave, you set the time and hit the power button. It is not necessary for you to understand how microwaves are used to heat your food.
2. Encapsulation: Combining data with the functions of that data allowing for the control and validation of said data by the user. The concept of a class in JavaScript is prime example of encapsulation.
3. Inheritance: When an object acquires the properties of another “parent” object.
4. Polymorphism: A core concept of object-oriented programming, polymorphism provides a way to perform a single action in different forms. It provides the ability to call the same method on different JavaScript objects.

**What is the relationship between a class and an object?**

A class is a template for objects. A class defines object properties and describes object behavior. An object is part of a class.

**References:**

<https://www.linkedin.com/pulse/4-pillars-object-oriented-programming-pushkar-kumar>

<https://www.ncl.ucar.edu/Document/HLUs/User_Guide/classes/classoview.shtml>

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