Charles Fehringer

1. What are the four pillars of Object-Oriented Programming? Explain each pillar.
    a. Abstraction – Abstraction hides the complex details of methods. It allows you to use the features of a method without having to understand how the method works. Without abstraction, there would be no use to using someone else's code since you would have to fully understand the code, to the point that you might as well have written the code yourself instead.
    b. Encapsulation – Encapsulation hides methods and properties that aren't meant to be directly edited. This give other users a clear picture of how an object is meant to be interacted with.
    c. Inheritance – Inheritance allows classes to reuse code from other classes. It allows similar classes to share the code that is similar, and still have the differences that make them unique.
    d. Polymorphism – Polymorphism allows serval classes to use the same method differently. This allows them to inherit the same method and be used interchangeably, while still being able perform different actions.
    e. Source: https://www.freecodecamp.org/news/four-pillars-of-object-oriented-programming/

2. What is the relationship between a Class and an Object?

    a. A class is a blueprint. It determines what properties and methods the object will have. An object is an instance of a class. It is one copy built from the class blueprint.

    b. Source: https://www.w3schools.com/java/java_classes.asp