Lab Report (Introduction to OO Programming)

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Reflection:

//explain the first design principle

The closed/open principle states that a class should be closed for modification, but it should be open to extension. What this means for programmers is that they shouldn’t have to directly edit the class to add more functionality. Instead, they can subclass to add more usage.

//explain factory pattern

The factory pattern defines a Factory class that oversees instantiating other objects. For example, the VehicleFactory would be in charge of creating Cars, Trains, Bicycles, etc. All of these vehicles would also be subclassing a Vehicle abstract class/interface. This would mean that they all share the same functionality.

//explain strategy patten  
The strategy patterns lets you change the functionality of an object at runtime by injecting an object that represents a certain **strategy**. Typically these strategies are implementing the same interface or subclass the same abstract class. For example, BikeStrategy and WalkStrategy can be passed into an object to change how it will travel. Because they implement the same interface, they are interchangeable.