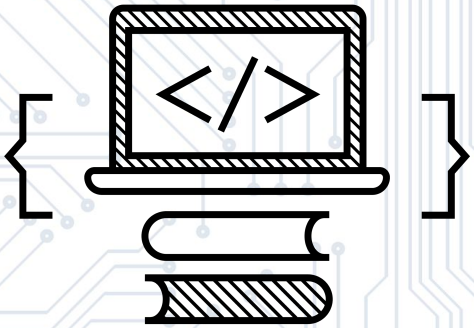
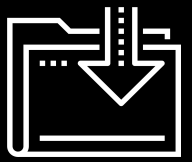


Object Oriented Programming Principles

Web Development Boot Camp

Lesson 22.3



Why?

- Common interview question
- Guidance for architecting your application

Principals

- Class
- Object
- Abstraction
- Encapsulation
- Inheritance
- Polymorphism

Abstraction

Displaying to the user of the class only the core essential chracteristics of an object while hiding details that are irrelevant to the user

Create a Public Interface

E.g., you don’t have to know how a car works in order to drive it

Encapsulation

An object maintains and controls its own state. It holds its properties and provides appropriate methods to *access* and *mutate* them.

This limits side effects to an object’s state

Inheritance

Classes can inherit methods and properties from other classes.

Sub classes (aka children) inherit from super classes (aka parents or grandparents)

This enables easy code reuse and extensibility

Polymorphism

Allows for treating objects of child classes as if they are base classes.

Each child class looks and behave differently. But if they all inherit from a common base class, they can be treated as such

(e.g., Cars and Planes behave differently but are both considered Vehicles)