

Journal Entry 1.5

1. In your own words, what is object-oriented programming? What are the benefits of OOP?

OOP is a way of structuring a code using objects and structuring them into classes. The benefits of doing this is your code will be non-repetitive and more effective.

2. What are objects and classes in Python? Come up with a real-world example to illustrate how objects and classes work.

Classes are like a template to create objects. It defines the attributes and methods the object will have. An example is Human as a class and each individual person as an object with specific birthdays, names, etc. as the attributes of that object.

3. In your own words, write brief explanations of the following OOP concepts; 100 to 200 words per method is fine.

Method	Description
Inheritance	You can inherit method from one class to another. The subclass/inherited class inherits all data attributed and procedures from the parent/base class.
Polymorphism	Polymorphism is when a data attribute or method has the same name, but performs differently depending on where it is defines.
Operator Overloading	Since special operators, + and -, do not work on a custom class they need to be defined using operator overloading. It requires defining a function with a name that Python already reserves for your operator and surrounding it with double underscores.