

Assignment - 1

1A. Class is used to define blueprint for a given object. Module is used to reuse a given piece of code inside another program.

2A.

The class statement creates a new class definition. The name of the class immediately follows the keyword class followed by a colon

To create instances of a class, you call the class using class name and pass in whatever arguments its `__init__` method accepts.

3A. Class attributes belong to the class itself they will be shared by all the instances. Such attributes are defined in the class body parts usually at the top, for legibility.

4A. Instance attributes are not shared by objects. Every object has its own copy of the instance attribute. Instance attributes are different for different instances.

5A. Self in python class means that class itself

6A. Classes can handle operator overloading by creating a method for that operator.

7A. Suppose we have to add two objects with binary '+' operator it throws an error, because compiler don't know how to add two objects. So we define a method for an operator and that process is called operator overloading.

operator overloading

class A:

def `__init__`(self, a):

self.a = a

adding two objects

def `__add__`(self, o):

return self.a + o.a

notice down we are adding two objects,so the operator + is used to add two objects

ob1 = A(1)

```
ob2 = A(2)
```

```
ob3 = A("Geeks")
```

```
ob4 = A("For")
```

```
print(ob1 + ob2)
```

```
print(ob3 + ob4)
```

8A. Addition operator is most popular operator overloading

9A. Two important concepts to understand Python OOP are Inheritance and Polymorphism