05 Practical

First Class

1. Define the class below

```
class Animal:
    name = None

    def __init__(self, name):
        self.name = name

    def noise(self):
        print("Moo")
```

2. Create an instance of the Animal class, and print out its name
3. Add a new variable called age to the constructor and class

```
bob = Dog("Bob", 0)
print(bob.age) # Prints 0
doug = Dog("Doug", 12)
print(doug.age) # Prints 12
```

4. Add a new function called “rename” which will rename the animal

```
bob = Dog("Bob", 0)
print(bob.name) # Prints Bob
bob.rename("Doug")
print(bob.name) # Prints Doug
```

Flip over!

Inheritance

```
class Cat(Animal):
    def noise(self):
        print("meow")
```

5. Given the above definition for Cat, write a Dog class that has a noise function that prints “woof”

```
bob = Dog("Bob", 0)
bob.noise()  # Prints woof
```

6. Add a new class variable called “walks”, to count the number of walks the dog has been on

```
bob = Dog("Bob", 0)
print(bob.walks)  # Prints 0
```

7. Add a new class function called “Walk” which will increment this number

```
bob = Dog("Bob", 0)
print(bob.walks)  # Prints 0
bob.walk()
print(bob.walks)  # Prints 1
```