

Practical No 1

Aim : Write A Program In Order To Explain The Concepts Of Class And Objects.

1. Making A Class For Circle

```
#-----Class-----#
# Creating Class Of Circle
class Circle:
    radius=0
    circumference=0
    area=0

    #Circumference Of Circle
    def circumferenceOfCircle(this):
        this.circumference = 2 * 3.14 * this.radius
        return 2 * 3.14 * this.radius

    #Area Of Circle
    def areaOfCircle(this):
        this.area = 3.14 * (this.radius ** 2)
        return 3.14 * (this.radius ** 2)

    #Display Curcumference
    def displayCircumference(this):
        print(this.circumference)

    #Display Area
    def displayArea(this):
        print(this.area)

#-----Code-----#

# Making Object
abc = Circle()

# User choice
choice = "y"

while choice == "y":
    # Giving Radius To Object
    abc.radius = int(input("Enter Radius : "))
```

```
#Calling Function To Calculate Area And Circumference
```

```
abc.circumferenceOfCircle()
```

```
abc.areaOfCircle()
```

```
# Printing Circumference , Area
```

```
print ("Circumference Of Circle")
```

```
abc.displayCircumference()
```

```
print("Area Of Circle")
```

```
abc.displayArea()
```

```
# Asking User If Wants To Continue
```

```
choice = input("Want To Continue : ")
```

```
Enter Radius : 7
Circumference Of Circle
43.96
Area Of Circle
153.86
Want To Continue : y
Enter Radius : 9
Circumference Of Circle
56.52
Area Of Circle
254.34
Want To Continue : n
```

2. Making Bike Class

```
#-----Class-----#
```

```
class Bike:
```

```
    name = ""
```

```
    gear = 0
```

```
#-----Code-----#
```

```
B1 = Bike()
```

```
B1.name = "Ducati"
```

```
B1.gear = 5
```

```
B2 = Bike()
```

```
B2.name = "kawasaki"
```

```
B2.gear = 7
```

```
B3 = Bike()
```

```
B3.name = "BMW"
```

```
B3.gear = 6
```

```
B4 = Bike()
```

```
B4.name = "Nissan"
```

```
B4.gear = 5
```

```
print("-----Bike-----")
print("Your bike name",B1.name,"has gear ",B1.gear)
print("-----")
print("Your bike name",B2.name,"has gear ",B2.gear)
print("-----")
print("Your bike name",B3.name,"has gear ",B3.gear)
print("-----")
print("Your bike name",B4.name,"has gear ",B4.gear)
print("-----")
```

```
-----Bike-----
Your bike name Ducati has gear 5
-----
Your bike name kawasaki has gear 7
-----
Your bike name BMW has gear 6
-----
Your bike name Nissan has gear 5
-----
```