Assignment-6(RID:001,Madhur Jodhwani)

1.Write a program which contains one class named as Demo.

Demo class contains two instance variables as no1 ,no2.

That class contains one class variable as Value.

There are two instance methods of class as Fun and Gun which displays values of instance variables.

Initialise instance variable in init method by accepting the values from user.

After creating the class create the two objects of Demo class as

Obj1 = Demo(11,21)

Obj2 = Demo(51,101)

Now call the instance methods as

Obj1.Fun()

Obj2.Fun()

Obj1.Gun()

Obj2.Gun()

```
class Demo:
    def __init__(self,i,j):
        self.no1=i
        self.no2=j

    def Fun(self):
        print(self.no1)

    def Gun(self):
        print(self.no2)

def main():
    obj=Demo(11,21)
    obj2=Demo(51,101)
    obj.Fun()
    obj2.Fun()
    obj.Gun()
    obj2.Gun()

main()
```

2. Write a program which contains one class named as Circle.

Circle class contains three instance variables as Radius ,Area, Circumference.

That class contains one class variable as PI which is initialise to 3.14.

Inside init method initialise all instance variables to 0.0.

The re a re th ree in s tan ce me thod s in side cla s s a s A c cep t() , Cal cula teA rea() , CalculateCircumference(), Display().

Accept method will accept value of Radius from user.

CalculateArea() method will calculate area of circle and store it into instance variable Area.

CalculateCircumference() method will calculate circumference of circle and store it into instance variable Circumference.

And Display() method will display value of all the instance variables as Radius , Area, Circumference.

After designing the above class call all instance methods by creating multiple objects.

```
class Circle:
    pi=3.14
    def __init__(self):
        self.Area=0.0
        self.Circumference=0.0

    def Accept(self):
        print("Enter value of radius")
        self.radius=float(input())

    def CalculateArea(self):
        self.Area=self.pi*self.radius*self.radius

    def CalculateCircumference(self):
        self.Circumference=self.pi*self.radius

    def Display(self):
        print(self.radius)
        print(self.Area)
        print(self.Circumference)

def main():
    obj1=Circle()
    obj1.Accept()
```

```
    obj1.CalculateArea()
    obj1.CalculateCircumference()
    obj1.Display()

if __name__ =="__main__":
    main()
```

3. Write a program which contains one class named as Arithmetic.

Arithmetic class contains three instance variables as Value1 ,Value2.

Inside init method initialise all instance variables to 0.

There are three instance methods inside class as Accept(), Addition(), Subtraction(),

Multiplication(), Division().

Accept method will accept value of Value1 and Value2 from user.

Addition() method will perform addition of Value1 ,Value2 and return result.

Subtraction() method will perform subtraction of Value1 ,Value2 and return result.

Multiplication() method will perform multiplication of Value1 ,Value2 and return result.

Division() method will perform division of Value1 ,Value2 and return result.

After designing the above class call all instance methods by creating multiple objects.

```
class Arithmetic:
    def Accept(self):
        print("Enter 1st number")
        self.no1=int(input())
        print("Enter second Number")
        self.no2=int(input())

    def Addition(self):
        return self.no1+self.no2

    def Subraction(self):
        return self.no1-self.no2

    def Multiplication(self):
        return self.no1*self.no2

    def Division(self):
        return self.no1/self.no2
```

```
def main():
    obj1=Arithmetic()
    obj1.Accept()
    print(obj1.Addition())
    print(obj1.Subraction())
    print(obj1.Multiplication())
    print(obj1.Division())

if __name__=="__main__":
    main()
```