Python Assignment:-6

'''

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:
	Value = 0;

	def __init__(self,val1, val2):
		self.no1= val1;
		self.no2= val2;

	def Fun(self):
		print("from fun");
		print(self.no1);
		print(self.no2);

	def Gun(self):
		print("from gun");
		print(self.no1);
		print(self.no2);



def main():

	obj1 = Demo(11,21);
	obj2 = Demo(51,101);


	obj1.Fun();
	obj2.Fun();
	obj1.Gun();
	obj2.Gun();

if __name__ == '__main__':
	main();
```

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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.
There are three instance methods inside class as Accept(), CalculateArea(), 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.
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```
class Demo:
   PI =3.14;

   def __init__(self):
      self.Radius=0.0;
      self.Area=0.0;
      self.Circumference=0.0;

   def Accept(self):
      self.Radius = float(input("Enter Radius: "));

   def CalculateArea(self):
      return  self.PI*self.Radius*self.Radius;

   def CalculateCircumference(self):
      return  2 * self.PI * self.Radius;




obj2 = Demo();
obj2.Accept();
print("Area of Cicle is: ",obj2.CalculateArea());
print("Circumference of circle is: ",obj2.CalculateCircumference());
```

'''
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 Arithmatic:

        def __init__ (self):
                        self.Value1 = 0;
                        self.Value2 = 0;

        def Accept(self):
                self.Value1 = int(input("Enter val1: "));
                self.Value2 = int(input("Enter val2: "));


        def Addition(self):
                print("inside Addition");
                return self.Value1 +  self.Value2;


        def Subtraction(self):
                print("inside Subtract");
                if self.Value1 > self.Value2:
                        return self.Value1 - self.Value2;
                else:
                        return self.Value2 - self.Value1;

        def Multiplication(self):
                print("inside Multi");
                return self.Value1 * self.Value2;

        def Division(self):
                print("inside Division");
                return self.Value1 // self.Value2;


obj1 = Arithmatic();
obj1.Accept();
print(obj1.Addition());
print(obj1.Subtraction());
print(obj1.Multiplication());
print(obj1.Division());
```