VIT Vidyalankar Institute of Technology ACCREDITED A+ BY NAAC	**Department of Information Technology**

Semester	S.E. Semester III – INFT
Subject	Python Programming Lab (SBL)
Laboratory Teacher:	Shruti Agrawal
Laboratory	L07D & M312A

Student Name	Mohammad Ahmed Ansari	
Roll Number	21101B0031	
Grade and Subject Teacher's Signature		

Experiment Number	08	
Problem Statement	Write a python program to create a bank class where deposits and withdrawal can be handled by using instance methods.	
Resources / Apparatus Required	Hardware: Desktop/Laptop	Software: Colab

Code:	<pre>class Bank:
	    def __init__(self, account_number, balance):
	        self.account_number = account_number
	        self.balance = balance
	
	    def deposit(self, amount):
	        self.balance += amount</pre>	

```
        print("Amount
deposited:", amount)

    def withdraw(self,
amount):
        if self.balance >=
amount:
            self.balance -=
amount
            print("Amount
withdrawn:", amount)
        else:

print("Insufficient
balance")

    def
display_balance(self):
        print("Account
balance:", self.balance)

my_account =
Bank(account_number,
initial_balance)
while True:
    print("\n1. Deposit")
    print("2. Withdraw")
    print("3. Display
balance")
    print("4. Exit")

    choice =
int(input("\nEnter your
choice: "))

    if choice == 1:
        deposit_amount =
float(input("Enter deposit
amount: "))

my_account.deposit(deposit_
amount)
    elif choice == 2:
        withdrawal_amount =
float(input("Enter
withdrawal amount: "))

my_account.withdraw(withdra
wal_amount)
```

```
    elif choice == 3:

my_account.display_balance(
)
    elif choice == 4:
        break
    else:
        print("Invalid choice, please try again.")
```

Output:

```
1. Deposit
2. Withdraw
3. Display balance
4. Exit

Enter your choice: 2
Enter withdrawal amount: 2000
Amount withdrawn: 2000.0

1. Deposit
2. Withdraw
3. Display balance
4. Exit

Enter your choice: 3
Account balance: 3002.0
```

```
1. Deposit
2. Withdraw
3. Display balance
4. Exit

Enter your choice: 1
Enter deposit amount: 5000
Amount deposited: 5000.0

1. Deposit
2. Withdraw
3. Display balance
4. Exit

Enter your choice: 2000
Invalid choice, please try again.

1. Deposit
2. Withdraw
3. Display balance
4. Exit

Enter your choice: 2
Enter withdrawal amount: 2000
Amount withdrawn: 2000.0
```

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Experiment Number	09	
Problem Statement	Python program to print area and perimeter of various geometry by inheriting polygon class.	
Resources / Apparatus Required	Hardware: Desktop/Laptop	Software: Colab

Code:

```
from abc import *
class Polygon:
  @abstractmethod
  def perimeter(self):
    pass
  @abstractmethod
  def area(self):
    pass
class Square(Polygon):
  def perimeter(self,side):
    print("The perimeter of square is: ",4*side)
  def area(self,side):
    print("The area of the square is: ",side*side)
class Rectangle(Polygon):
  def perimeter(self,length,breadth):
    print("The perimeter of rectangle is:
",2*length+2*breadth)
  def area(self,length,breadth):
    print("The area of the rectangle is:
",length*breadth)
class Circle(Polygon):
  def perimeter(self,radius):
    print("The perimeter of circle is: ",2*3.142*radius)
  def area(self,radius):
    print("The area of the square is:
",3.142*radius*radius)
while 1:

ch=int(input("MENU\n1.Square\n2.Rectangle\n3.Circle\n4.E
xit\n"))
  if ch==1:
    side=int(input("Enter the side of the square:"))
    s=Square()
    s.perimeter(side)
    s.area(side)
  elif ch==2:
    length=int(input("Enter the length of the
rectangle:"))
    breadth=int(input("Enter the breadth of the
rectangle:"))
    r=Rectangle()
    r.perimeter(length,breadth)
    r.area(length,breadth)
  elif ch==3:
    radius=int(input("Enter the radius of the circle:"))
    c=Circle()
    c.perimeter(radius)
    c.area(radius)
```

```
  elif ch==4:
    break
  else:
    print("Invalid input!!!")
```

Output:

```
MENU
1.Square
2.Rectangle
3.Circle
4.Exit
1
Enter the side of the square:3
The perimeter of square is:  12
The area of the square is:  9
MENU
1.Square
2.Rectangle
3.Circle
4.Exit
2
Enter the length of the rectangle:5
Enter the breadth of the rectangle:6
The perimeter of rectangle is:  22
The area of the rectangle is:  30
MENU
1.Square
2.Rectangle
3.Circle
4.Exit
3
Enter the radius of the circle:4
The perimeter of circle is:  25.136
The area of the square is:  50.272
```