Python Programming Questions

➤ Program No.1

#Write a python program to print Hello.

```
print("Hello")
```

Output:

```
Hello
```

➤ Program No.2

#Write a python program to print student address.

```
print("Anjali Sunil")
print("37")
print("Chengannur")
print("Alappuzha")
```

Output:

```
Anjali Sunil
37
Chengannur
Alappuzha
```

➤ Program No.3

#Write a python program to print college address in multiple lines by using single output statement.

```
print("Gregorian Institute of Technology \n
Kanjirappara PO \n Kangazha \n Kottayam \n 686555")
```

Output:

```
Gregorian Institute of Technology
 Kanjirappara PO
```

```
Kangazha

Kottayam

686555
```

➢ **Program No.4**

#Write a python program to print bussiness address in a single line by using multiple print statements.

```
print("Kausthubham Residency",end=" ")

print("Thiruvanvandoor",end=" ")

print("Chengannur",end=" ")

print("Alappuzha",end=" ")

print("689109")
```

Output:

```
Kausthubham Residency Thiruvanvandoor Chengannur
Alappuzha 689109
```

➢ **Program No.5**

#Write a python program to print your name within double codes.

```
print("\"Anjali Sunil\"")
```

Output:

```
"Anjali Sunil"
```

➢ **Program No.6**

#Write a python program to print address in multiple line using only one output statement and within double codes.

```
print("\"Narayana Bhavanam\" \n \"Mazhukkeer\" \n
\"Kallisery PO\" \n \"Chengannur\" \n \"Alappuzha\"
\n \"689124\"")
```

Output:

```
"Narayana Bhavanam"
```

"Mazhukkeer"

"Kallisery PO"

"Chengannur"

"Alappuzha"

"689124"

➢ **Program No.7**

#Write a python program to print addition of two numbers.

```
a=20
b=50
c=a+b
print("Addition of two numbers= ",c)
```

Output:

```
Addition of two numbers= 70
```

➢ **Program No.8**

#Write a python program to print subtraction of two numbers.

```
a=100
b=50
c=a-b
print("Subtraction of two numbers= ",c)
```

Output:

```
Subtraction of two numbers=  50
```

➢ **Program No.9**

#Write a python program to print multiplication of two numbers.

```
a=50
b=2
c=a*b
```

```
print("multiplication of two numbers= ",c)
```

Output:

```
multiplication of two numbers=  100
```

➢ **Program No.10**

#Write a python program to print Division of two numbers.

```
a=100
```

```
b=25
```

```
c=a/b
```

```
print("Division of two numbers= ",c)
```

Output:

```
Division of two numbers= 4.0
```

➢ **Program No.11**

#Write a python program to print modulo division of two numbers.

```
a=25
```

```
b=3
```

```
c=a%b
```

```
print("Module division of two numbers= ",c)
```

Output:

```
Module division of two numbers= 1
```

➢ **Program No.12**

#Write a python program to find area of square.

```
a=10
```

```
b=a*a
```

```
print("Area of square= ",b)
```

Output:

```
Area of square= 100
```

➢ Program No.13

#Write a python program to print area of rectangle.

```
a=10
b=2
c=a*b
print("Area of rectangle= ",c)
```

Output:

```
Area of rectangle= 20
```

➢ Program No.14

#Write a python program to print area of circle.

```
r=5
a=3.14*r*r
print("Area of circle= ",a)
```

Output:

```
Area of circle=  78.5
```

➢ Program No.15

#Write a python program to print area of triangle.

```
a=5
b=10
c=0.5*a*b
print("Area of triangle= ",c)
```

Output:

```
Area of triangle= 25.0
```

➢ Program No.16

#Write a python program to print addition of user given two numbers.

```
a=int(input("Enter first number: "))

b=int(input("Enter second number: "))

c=a+b

print("The addition of user given two numbers= ",c)
```

Output:

```
Enter first number: 10

Enter second number: 20

The addition of user given two numbers= 30
```

> ➢ **Program No.17**

#Write a python program to print subtraction of user given two numbers.

```
a=int(input("Enter first number: "))

b=int(input("Enter second number: "))

c=a-b

print("The subtraction of user given two numbers= ",c)
```

Output:

```
Enter first number: 50

Enter second number: 30

The subtraction of user given two numbers= 20
```

> ➢ **Program No.18**

#Write a python program to print multiplication of user given two numbers.

```
a=int(input("Enter first number: "))

b=int(input("Enter second number: "))

c=a*b
```

```
print("The multiplication of user given two numbers=
",c)
```

Output:

```
Enter first number: 25

Enter second number: 4

The multiplication of user given two numbers= 100
```

> ➢ **Program No.19**

#Write a python program to print division of user given two numbers.

```
a=int(input("Enter first number: "))

b=int(input("Enter second number: "))

c=a/b

print("The divison of user given two numbers= ",c)
```

Output:

```
Enter first number: 200

Enter second number: 4

The divison of user given two numbers= 50.0
```

> ➢ **Program No.20**

#Write a python program to print modulo division of user given two numbers.

```
a=int(input("Enter first number: "))

b=int(input("Enter second number: "))

c=a%b

print("Modulo division of user given two numbers=
",c)
```

Output:

```
Enter first number: 25
```

```
Enter second number: 3

Modulo division of user given two numbers= 1
```

➢ **Program No.21**

#Write a python program to find area of square of user given sides.

```
s=int(input("Enter the side of square: "))

a=s*s

print("The area of square of user given sides: ",a)
```

Output:

```
Enter the side of square: 10

The area of square of user given sides: 100
```

➢ **Program No.22**

#Write a python program to find area of rectangle of user given sides.

```
a=int(input("Enter first side: "))

b=int(input("Enter second side: "))

c=a*b

print("The area of rectangle of user given sides=
",c)
```

Output:

```
Enter first side: 6

Enter second side: 5

The area of rectangle of user given sides= 30
```

➢ **Program No.23**

#Write a python program to find area of circle of user given radius.

```
r=int(input("Enter the radius: "))

a=3.14*r*r
```

```
print("The area of circle of user given radius= ",a)
```

Output:

```
Enter the radius: 4
The area of circle of user given radius= 50.24
```

➢ **Program No.24**

#Write a python program to find area of traingle of user given two sides.

```
a=int(input("Enter the first side: "))
b=int(input("Enter the second side: "))
c=0.5*a*b
print("The area of triangle of user given two sides= ",c)
```

Output:

```
Enter the first side: 15
Enter the second side: 2
The area of triangle of user given two sides= 15.0
```

➢ **Program No.25**

#Write a python program to read and print an electricity bill.

```
cid=int(input("Enter customer id: "))
cname=input("Enter customer name: ")
cadd=input("Enter customer address: ")
P=int(input("Enter previous reading: "))
C=int(input("Enter current reading: "))
X=C-P
cost=X*3
stax=(cost/100)*5
ctax=(cost/100)*10
```

```
tcost=cost+stax+ctax

print("Enter customer id: ",cid)

print("Enter customer name: ",cname)

print("Enter customer address: ",cadd)

print("Previous reading: ",P)

print("Current reading: ",C)

print("No of units consumed: ",X)

print("Cost= ",cost)

print("State tax= ",stax)

print("Central tax= ",ctax)

print("Total cost= ",tcost)
```

Output:

```
Enter customer id: 1234

Enter customer name: Anjali Sunil

Enter customer address: ABCD

Enter previous reading: 1200

Enter current reading: 1500

Enter customer id: 1234

Enter customer name:  Anjali Sunil

Enter customer address: ABCD

Previous reading: 1200

Current reading: 1500

No of units consumed: 300

Cost= 900

State tax= 45.0

Central tax= 90.0
```

```
Total cost= 1035.0
```

➢ **Program No.26**

#A bus is travelling from stage 1 to stage 10 . The cost of adult passenger is 10Rs per stage and cost of child passenger is 5Rs per stage.Then a state tax 15% and a central tax 12% is also applicable on the ticket.Print the bus ticket of the given data.

```
sname=input("Enter service name= ")

fro=int(input("Enter source num= "))

to=int(input("Enter destination num= "))

adults=int(input("Enter no of adults= "))

child=int(input("Enter no of children= "))

stages=to-fro

acost=10*adults*stages

ccost=5*child*stages

cost=acost+ccost

stax=(cost/100)*15

ctax=(cost/100)*12

tcost=cost+stax+ctax

print("Service name= ",sname)

print("From= ",fro)

print("To= ",to)

print("no of adults= ",adults)

print("no of children= ",child)

print("Adult cost= ",acost)

print("Child cost= ",ccost)

print("Cost= ",cost)

print("State tax= ",stax)
```

```
print("Central tax= ",ctax)
print("Total cost= ",tcost)
```

Output:

```
Enter service name= KSRTC

Enter source num= 2

Enter destination num= 8

Enter no of adults= 2

Enter no of children= 3

Service name= KSRTC

From= 2

To= 8

no of adults= 2

no of children= 3

Adult cost= 120

Child cost= 90

Cost= 210

State tax= 31.5

Central tax= 25.200000000000003

Total cost= 266.7
```

➢ Program No.27

#Write a python program to find the value of given expression for the given x&y values

$$z = x^4 + logy/\sqrt{x+y}$$

```
import math as m
x=int(input("Enter value of x: "))
```

```
y=int(input("Enter value of y: "))
z=(m.pow(x,4)+m.log(y))/m.sqrt(x+y)
print(z)
```

Output:

```
Enter value of x: 2
Enter value of y: 4
7.097924950428697
```

> ➢ **Program No.28**

#Write a python program to find the value of given expression for the given x&y values

$$z = \sqrt{x} + y^3/e^x + log_2(y)$$

```
import math as m
x=int(input("Enter value of x: "))
y=int(input("Enter value of y: "))
z=(m.sqrt(x)+m.sqrt(m.pow(y,3)))/(m.exp(x)+m.log(y,2)
)
print(z)
```

Output:

```
Enter value of x: 2
Enter value of y: 4
1.002679445428525
```

> ➢ **Program No.29**

#write a program to find the values of given expression for the given x&y values

$$z = sin(e^x) + cos(x^y)/tan(x) + log_2(x^y)$$

```
import math as m

x=int(input("Enter value of x: "))

y=int(input("Enter value of y: "))

z=(m.sin(m.exp(x))+m.cos(m.pow(x,y)))/(m.tan(x)+m.log
2(m.pow(x,y))

print(z)
```

Output:

```
Enter value of x: 4

Enter value of y: 8

-0.09620118195626849
```

➢ **Program No.30**

#Write a python program to find the value of given expression for the given x&y values

$$z = \sqrt{e^x + log(x^y)} + log_{10}(y^x)$$

```
import math as m

x=int(input("Enter value of x: "))

y=int(input("Enter value of y: "))

z=(m.sqrt(m.exp(x)+m.log(m.pow(x,y))+m.log10(pow(x,y)
))

print(z)
```

Output:

```
Enter value of x: 4

Enter value of y: 2

8.778467397145441
```

➢ **Program No.31**

#Write a python program to find the values of given expression for the given x&y values

$$z = \sqrt{(log_{10}(e^x) + log_2(x^y)}/sin(x^y) + tan(y^x)$$

```
import math as m

x=int(input("Enter value of x: "))

y=int(input("Enter value of y: "))

z=m.sqrt((m.log10(m.exp(x)))+m.log2(pow(x,y))/(m.sin(
m.pow(x,y)+m.tan(m.pow(y,x)))))

print(z)
```

Output:

```
Enter value of x: 6

Enter value pf y: 3

3.495988812223207
```

➢ **Program No.32**

#Write a python program to find and display roots of a quadratic equation for the given a,b,c when

$$x = -b \pm \sqrt{b^2 - 4ac}/2a$$

```
import cmath as m

a=int(input("Enter value of a: "))

b=int(input("Enter value of b: "))

c=int(input("Enter value of c: "))

d=b*b-4*a*c

root1=(-b+m.sqrt(d))/(2*a)

root2=(-b-m.sqrt(d))/(2*a)
```

```
print("The two real roots of a quadratic equation
are")
```

```
print("Root 1: ",root1)
```

```
print("Root 2: ",root2)
```

Output:

```
Enter value of a: 1
```

```
Enter value of b: 2
```

```
Enter value of c: 3
```

```
The two real roots of a quadratic equation are
```

```
Root 1: (-1+1.4142135623730951j)
```

```
Root 2: (-1-1.4142135623730951j)
```

➢ **Program No.33**

#Write a python program to find a<b or not.

```
a=int(input("Enter a value: "))
```

```
b=int(input("Enter b value: "))
```

```
print(a<b)
```

Output:

```
Enter a value: 10
```

```
Enter b value: 20
```

```
True
```

➢ **Program No.34**

#Write a python program ,You will be given three values a,b,c and print true if a is smallest value.

```
a=int(input("Enter a value: "))
```

```
b=int(input("Enter b value: "))
```

```
c=int(input("Enter c value: "))
```

```
print(a<b and a<c)
```

Output:

```
Enter a value: 40

Enter b value: 80

Enter c value: 120

True
```

➢ **Program No.35**

#Write a python program,You will be given a positive integer amd print true if it is a power of 2 else print false.

```
a=int(input("Enter a value: "))

print(a & (a-1)==0)
```

Output:

```
Enter a value: 64

True
```

➢ **Program No.36**

#Write a python program to check given number is positive or not.

```
n=int(input("Enter any number: "))

if n>0:

    print("It is a positive number")

    print("The given number= ",n)

print("End of the program")
```

Output 1:

```
Enter any number: 25

It is a positive number

The given number=  25

End of the program
```

Output 2:

```
Enter any number: -25

End of the program
```

➢ **Program No.37**

#Write a python program to check given number is positive or negative.

```python
n=int(input("Enter any number: "))

if n>0:

    print("It is a positive number")

    print("The given number= ",n)

else:

    print("It is a negative number")

    print("The given number= ",n)

print("End of the program")
```

Output 1:

```
Enter any number: 25

It is a positive number

The given number=  25

End of the program
```

Output 2:

```
Enter any number: -25

It is a negative number

The given number=  -25

End of the program
```

➢ **Program No.38**

#Write a python program to check given number is even or not.

```python
n=int(input("Enter any number: "))
```

```python
if n%2==0:

    print("It is an even number")

    print("The given number= ",n)

print("End of the program")
```

Output 1:

```
Enter any number: 10

It is an even number

The given number= 10

End of the program
```

Output 2:

```
Enter any number: 13

End of the program
```

> ➢ **Program No.39**

#Write a python program to check given number is even or odd.

```python
n=int(input("Enter any number: "))

if n%2==0:

    print("It is an even number")

    print("The given number= ",n)

else:

    print("It is an odd number")

    print("The given number= ",n)

print("End of the program")
```

Output 1:

```
Enter any number: 10

It is an even number

The given number= 10
```

```
End of the program
```

Output 2:

```
Enter any number: 13

It is an odd number

The given number= 13

End of the program
```

➢ Program No.40

#Write a program to find minimum of given two numbers.

```python
a=int(input("Enter any number: "))
b=int(input("Enter any number: "))
if a<b:
    print("a is minimum")
    print("Value of a= ",a)
else:
    print("b is minimum")
    print("Value of b= ",b)
print("End of the program")
```

Output 1:

```
Enter any number: 10

Enter any number: 20

a is minimum

Value of a= 10

End of the program
```

Output 2:

```
Enter any number: 30

Enter any number: 15
```

b is minimum

Value of b= 15

End of the program

➤ **Program No.41**

#Write a program to find maximum of given two numbers.

```
a=int(input("Enter any number: "))
b=int(input("Enter any number: "))
if a>b:
    print("a is maximum")
    print("Value of a= ",a)
else:
    print("b is maximum")
    print("Value of b= ",b)
print("End of the program")
```

Output 1:

```
Enter any number: 20
Enter any number: 10
a is maximum
Value of a= 20
End of the program
```

Output 2:

```
Enter any number: 15
Enter any number: 25
b is maximum
Value of b=  25
End of the program
```

➤ Program No.42

#Write a program to check given number is positive even or not.

```
n=int(input("Enter any number:"))
if n>0 and n%2==0:
    print("It is a postive even number")
    print("The given number= ",n)
print("End of the program")
```

Output 1:

```
Enter any number:20
It is a postive even number
The given number=  20
End of the program
```

Output 2:

```
Enter any number:7
End of the program
```

➤ Program No.43

#Write a python program to check given character is a vowel or not.

```
c=input("Enter a character: ")
if c=='a' or c=='e' or c=='i' or c=='o' or c=='u'or
c=='A' or c=='E' or c=='I' or c=='O' or c=='U':
    print("It is a vowel")
else:
    print("It is not a vowel")
print("End of the program")
```

Output 1:

```
Enter a character: a
```

```
It is a vowel

End of the program
```

Output 2:

```
Enter a character: A

It is a vowel

End of the program
```

Output 3:

```
Enter a character: v

It is not a vowel

End of the program
```

Output 4:

```
Enter a character: B

It is not a vowel

End of the program
```

➢ **Program No.44**

#Write a python program to demonstrate ATM operation by using Nested if else statement.

```
pin =1234

bal=5000

cash=4000

p=int(input("Enter your PIN number: "))

if p==pin:

    a=int(input("Enter amount: "))

    if a%100==0:

            if a<=bal:

                if a<=cash:
```

```
                    print("Withdrawal is success")

                    bal=bal-a

                    print("Updated balance= ",bal)

                else:

                    print("Cash is not available")

            else:

                print("Insufficient balance")

    else:

        print("Invalid amount")

else:

    print("Invalid PIN number")
```

Output 1:

```
Enter your PIN number: 1234

Enter amount: 3000

Withdrawal is success

Updated balance=  2000
```

Output 2:

```
Enter your PIN number: 1234

Enter amount: 5000

Cash is not available
```

Output 3:

```
Enter your PIN number: 1234

Enter amount: 6000

Insufficient balance
```

Output 4:

```
Enter your PIN number: 1234
```

```
Enter amount: 3555
Invalid amount
```

Output 5:
```
Enter your PIN number: 2345
Invalid PIN number
```

➢ **Program No.45**

#Write a python program to display grade of a student.

```python
avg=float(input("Enter Average: "))
if avg>90:
    print("Grade=A+")
elif avg>80:
    print("Grade=A")
elif avg>70:
    print("Grade=B+")
elif avg>60:
    print("Grade=B")
elif avg>50:
    print("Grade=C+")
elif avg>40:
    print("Grade=C")
elif avg>35:
    print("Grade=D+")
else:
    print("Grade=D")
```

Output :
```
Enter Average: 76
```

```
Grade=B+
```

➢ **Program No.46**

#Write a python program to print day as per user given input.

```
n=int(input("Enter any number: "))

match n:

    case 1:

        print("MONDAY")

    case 2:

        print("TUESDAY")

    case 3:

        print("WEDNESDAY")

    case 4:

        print("THURSDAY")

    case 5:

        print("FRIDAY")

    case 6:

        print("SATURDAY")

    case 7:

        print("SUNDAY")

    case _:

        print("INVALID DAY")
```

Output 1:

```
Enter any number: 2

TUESDAY
```

Output 2:

```
Enter any number: 8
```

INVALID DAY

> ## Program No.47

 #Write a python program to perform arithmetic operation based on user selection.

```python
print("Choose any one of the following: ")
print("1.Addition \n2.Subtraction \n3.Multiplication \n4.Division")
opt=int(input("Enter your option: "))
match opt:
    case 1:
        a=int(input("Enter first number: "))
        b=int(input("Enter second number: "))
        c=a+b
        print("The addition of two numbers= ",c)
    case 2:
        a=int(input("Enter first number: "))
        b=int(input("Enter second number: "))
        c=a-b
        print("The subtraction of two numbers= ",c)
    case 3:
        a=int(input("Enter first number: "))
        b=int(input("Enter second number: "))
        c=a*b
        print("The multiplication of two numbers= ",c)
    case 4:
        a=int(input("Enter first number: "))
```

```
        b=int(input("Enter second number: "))

        c=a/b

        print("The division of two numbers= ",c)

    case _:

        print("Invalid option")
```

Output 1:

```
Choose any one of the following:

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your option: 1

Enter first number: 10

Enter second number: 20

The addition of two numbers= 30
```

Output 2:

```
Choose any one of the following:

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your option: 2

Enter first number: 50

Enter second number: 45

The subtraction of two numbers= 5
```

Output 3:

```
Choose any one of the following:

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your option: 3

Enter first number: 12

Enter second number: 3

The multiplication of two numbers= 36
```

Output 4:

```
Choose any one of the following:

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your option: 4

Enter first number: 45

Enter second number: 5

The division of two numbers= 9.0
```

Output 5:

```
Choose any one of the following:

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your option: 5
```

```
Invalid option
```

➢ **Program No.48**

#Write a python program to perform find area of Square,Rectangle ,Circle and Triangle as per user selection.

```python
print("Choose any one of the following: ")

print("1.Square \n2.Rectangle \n3.Circle
\n4.Triangle")

opt=int(input("Enter your option: "))

match opt:

    case 1:

        s=int(input("Enter the side: "))

        a=s*s

        print("The area of Square= ",a)

    case 2:

        l=int(input("Enter the value of length: "))

        b=int(input("Enter the value of breadth: "))

        a=l*b

        print("The area of Rectangle= ",a)

    case 3:

        r=int(input("Enter the radius: "))

        a=3.14*r*r

        print("The area of Circle= ",a)

    case 4:

        b=int(input("Enter the value of base: "))

        h=int(input("Enter the value of height: "))

        a=0.5*b*h

        print("The area of Triangle= ",a)
```

```
    case _:

        print("Invalid option")
```

Output 1:

```
Choose any one of the following:

1.Square

2.Rectangle

3.Circle

4.Triangle

Enter your option: 1

Enter the side: 5

The area of Square= 25
```

Output 2:

```
Choose any one of the following:

1.Square

2.Rectangle

3.Circle

4.Triangle

Enter your option: 2

Enter the value of length: 6

Enter the value of breadth: 4

The area of Rectangle= 24
```

Output 3:

```
Choose any one of the following:

1.Square

2.Rectangle

3.Circle
```

```
4.Triangle

Enter your option: 3

Enter the radius: 4

The area of Circle= 50.24
```

Output 4:

```
Choose any one of the following:

1.Square

2.Rectangle

3.Circle

4.Triangle

Enter your option: 4

Enter the value of base: 4

Enter the value of height: 6

The area of Triangle= 12.0
```

Output 5:

```
Choose any one of the following:

1.Square

2.Rectangle

3.Circle

4.Triangle

Enter your option: 5

Invalid option
```

> ## Program No.49

#Write a python program to perform banking operation based on user selection.

```
Pin=1234
```

```python
cash=4000
balance=10000
print("Choose any one of the following: ")
print("1.Deposit \n2.Withdrawal \n3.Balance enquiry \n4.PIN change")
opt=int(input("Enter your option: "))
match opt:
    case 1:
        P=int(input("Enter PIN: "))
        if P==Pin:
            a=int(input("Enter amount: "))
            if a%100==0:
                balance=balance+a
                print("Updated balance= ",bal)
            else:
                print("Invalid amount")
        else:
            print("PIN is incorrect")
    case 2:
        P=int(input("Enter PIN: "))
        if P==Pin:
            a=int(input("Enter amount: "))
            if a%100==0:
                if a<=balance:
                    if a<=cash:
                        balance=balance-a
```

```python
                        print("Updated balance= ",bal)
                    else:
                        print("Cash is not available")
                else:
                    print("Insufficient Balance")
            else:
                print("Invalid amount")
        else:
            print("PIN is incorrect")
    case 3:
        P=int(input("Enter PIN: "))
        if P==Pin:
            print("Balance amount= ",bal)
        else:
            print("Incorrect PIN")
    case 4:
        P=int(input("Enter PIN: "))
        if P==Pin:
            P1=int(input("Enter your new pin: "))
            P2=int(input("Confirm your new pin: "))
            if P1==P2:
                Pin=P1
                print("Your PIN changed successfully")
            else:
```

```
                print("PIN does not match")
        else:
            print("Invalid PIN")
    case _:
        print("Invalid option")
```

Output 1:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 1

Enter PIN: 1234

Enter amount: 2000

Updated balance= 12000
```

Output 2:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 1

Enter PIN: 1234

Enter amount: 2550

Invalid amount
```

Output 3:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 1

Enter PIN: 2345

PIN is incorrect
```

Output 4:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 2

Enter PIN: 1234

Enter amount: 3000

Updated balance= 7000
```

Output 5:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 2

Enter PIN: 1234
```

Enter amount: 5000

Cash is not available

Output 6:

Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 2

Enter PIN: 1234

Enter amount: 12000

Insufficient Balance

Output 7:

Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 2

Enter PIN: 1234

Enter amount: 1250

Invalid amount

Output 8:

Choose any one of the following:

1.Deposit

2.Withdrawal

```
3.Balance enquiry

4.PIN change

Enter your option: 2

Enter PIN: 2234

PIN is incorrect
```

Output 9:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 3

Enter PIN: 1234

Balance amount= 10000
```

Output 10:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 3

Enter PIN: 3456

Incorrect PIN
```

Output 11:

```
Choose any one of the following:

1.Deposit
```

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 4

Enter PIN: 1234

Enter your new pin: 5678

Confirm your new pin: 5678

Your PIN changed successfully

Output 12:

Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 4

Enter PIN: 1234

Enter your new pin: 5678

Confirm your new pin: 4567

PIN does not match

Output 13:

Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 4

```
Enter PIN: 2345

Invalid PIN
```

Output 14:

```
Choose any one of the following:

1.Deposit

2.Withdrawal

3.Balance enquiry

4.PIN change

Enter your option: 6

Invalid option
```

➢ **Program No.50**

#Write a python program to print numbers from 1 to n by using while loop.

```
n=int(input("Enter any number: "))

i=1

while i<=n:

    print(i)

    i=i+1
```

Output:

```
Enter any number: 5

1

2

3

4

5
```

➢ **Program No.51**

#Write a python program to print numbers from 1 to n by using for loop.

```
n=int(input("Enter any number: "))
for i in range (1,n+1):
    print(i)
```

Output:

```
Enter any number: 5
1
2
3
4
5
```

➢ **Program No.52**

#Write a python program to print your name for n number of times by using while loop and for loop.

Using while loop

```
n=int(input("Enter any number: "))
i=1
while i<=n:
    print("Anjali Sunil")
    i=i+1
```

Output:

```
Enter any number: 2
Anjali Sunil
Anjali Sunil
```

Using for loop

```
n=int(input("Enter any number: "))
```

```
for i in range (1,n+1):

    print("Anjali Sunil")
```

Output:

```
Enter any number: 3

Anjali Sunil

Anjali Sunil

Anjali Sunil
```

➢ **Program No.53**

#Write a python program to print numbers in user given range.

```
s=int(input("Enter starting value of the range: "))

e=int(input("Enter ending value of the range: "))

for i in range (s,e+1):

    print(i)
```

Output:

```
Enter starting value of the range: 1

Enter ending value of the range: 10

1

2

3

4

5

6

7

8

9

10
```

➢ Program No.54

#Write a python program to print even numbers in user given range.

```python
s=int(input("Enter starting value of the range: "))
e=int(input("Enter ending value of the range: "))
for i in range (s,e+1):
    if i%2==0:
        print(i)
```

Output:

```
Enter starting value of the range: 2
Enter ending value of the range: 8
2
4
6
8
```

➢ Program No.55

#Write a python program to find sum of numbers in user given range.

- **Using while loop**

```python
s=int(input("Enter starting value of the range: "))
e=int(input("Enter ending value of the range: "))
sum=0
while s<=e:
    sum=sum+s
    s=s+1
print("Sum of numbers= ",sum)
```

Output:

```
Enter starting value of the range: 1

Enter ending value of the range: 3

Sum of numbers= 6
```

- **Using for loop**

```
s=int(input("Enter starting value of the range: "))

e=int(input("Enter ending value of the range: "))

sum=0

for i in range (s,e+1):

    sum=sum+i

print("Sum of numbers= ",sum)
```

Output:

```
Enter starting value of the range: 2

Enter ending value of the range: 4

Sum of numbers= 9
```

➢ **Program No.56**

#Write a python program to find sum of even numbers in user given range.

```
s=int(input("Enter starting value of the range: "))

e=int(input("Enter ending value of the range: "))

sum=0

for i in range (s,e+1):

    if i%2==0:

        sum=sum+i

print("Sum of numbers= ",sum)
```

Output:

```
Enter starting value of the range: 2

Enter ending value of the range: 6

Sum of numbers=  12
```

➢ **Program No.57**

#Write a python program to count number of digits in the given number.

```
n=int(input("Enter any number: "))

d=0

while n>0:

    d=d+1

    n=n//10

print("Number of digits= ",d)
```

Output:

```
Enter any number: 225

Number of digits=  3
```

➢ **Program No.58**

#Write a python program to find sum of digits of a given number.

```
n=int(input("Enter any number: "))

sum=0

while n>0:

    rem=n%10

    sum=sum+rem

    n=n//10

print("Sum of digits= ",sum)
```

Output:

```
Enter any number: 255
```

```
Sum of digits=  12
```

> ➢ **Program No.59**

#Write a python program to find reverse of a given number.

```python
n=int(input("Enter any number: "))
rev=0
while n>0:
    rem=n%10
    rev=rev*10+rem
    n=n//10
print("Reverse of a given number= ",rev)
```

Output:

```
Enter any number: 345
Reverse of a given number=  543
```

> ➢ **Program No.60**

#Write a python program to check given number is palindrome number or not.

```python
n=int(input("Enter any number: "))
a=n
rev=0
while n>0:
    rem=n%10
    rev=rev*10+rem
    n=n//10
print("Reverse of a given number= ",rev)
if rev==a:
    print("Given number is a Palindrome number")
```

```
else:

    print("Given number is not a Palindrome number")
```

Output 1:

```
Enter any number: 1221

Reverse of a given number= 1221

Given number is a Palindrome number
```

Output 2:

```
Enter any number: 123

Reverse of a given number= 321

Given number is not a Palindrome number
```

➢ **Program No.61**

#Write a python program to check the given number is prime or not.

• **Logic No.1- By using n divisions.**

```
n=int(input("Enter any number:" ))

c=0

for i in range (1,n+1):

    if n%i==0:

        c=c+1

if c==2:

    print("Given number is a prime number")

else:

    print("Given number is not a prime number")
```

Output 1:

```
Enter any number:2

Given number is a prime number
```

Output 2:

```
Enter any number:6
Given number is not a prime number
```

> ## Program No.62

#Write a python program to check the given number is prime or not.

- **Logic No.2- By using n/2 divisions.**

```python
n=int(input("Enter any number:" ))
c=0
for i in range (2,n//2+1):
    if n%i==0:
        c=c+1
if c==0:
    print("Given number is a prime number")
else:
    print("Given number is not a prime number")
```

Output 1:

```
Enter any number:3
Given number is a prime number
```

Output 2:

```
Enter any number:8
Given number is not a prime number
```

> ## Program No.63

#Write a python program to check the given number is prime or not.

- **Logic No.3- By using square root of n.**

```python
import math
n=int(input("Enter any number:" ))
c=0
x=int(math.sqrt(n))
for i in range (2,n//2+1):
    if n%i==0:
        c=c+1
if c==0:
    print("Given number is a prime number")
  else:
    print("Given number is not a prime number")
```

Output 1:

```
Enter any number:7
Given number is a prime number
```

Output 2:

```
Enter any number:10
Given number is not a prime number
```