Day 3

#write a program to input a number find sum of its digit

Code:-

n=int(input("enter a number"))

sum=0

while(n!=0):

    rem=n%10

    sum+=rem

    n=n//10

print(sum)

Output:-

enter a number1144

10

#write a program to input a number and find whether it is armstrong number or not

Code:-

n=int(input("enter a number"))

sum=0

while(n!=0):

    rem=n%10

    sum=(sum+(rem\*\*3))

    n=n//10

print(sum)

Output:-

enter a number1444

193

#write a program to input a number and find whether it is palendrome number or not

Code:-

n=int(input("enter a number"))

rev=0

while(n!=0):

    rem=n%10

    rev= rev\*10+rem

    n=n//10

if(rev==n):

  print("number is palindrome number")

else:

  print("not palindrome")

Output:-

enter a number1221

number is palindrome number

enter a number124

not palindrome

# Break statement

Code:-

for i in range(1,11):

      if(i==5):

        break

      else:

        print(i,end=' ')

Output:-

1 2 3 4

#Continue statement

Code:-

for i in range(1,11):

      if(i==5):

        continue

      else:

        print(i,end=' ')

Output:-

1 2 3 4 6 7 8 9 10

#Write a program to take input from the user and check it is prime or not

Code:-

n=int(input("enter a number"))

if(n==1):

  print("not a prime number")

else:

 for i in range(2,n):

  if(n%i==0):

     print( "notprime number")

     break

 else:

      print("prime number")

Output:-

enter a number12

notprime number

enter a number3

prime number

#Nested loops

Code:-

for i in range (1,5):

   for j in range (1,5):

     print (i,j)

   print ()

Output:-

1 1

1 2

1 3

1 4

2 1

2 2

2 3

2 4

3 1

3 2

3 3

3 4

4 1

4 2

4 3

4 4

#wap to print prime number from 15 to 30

for i in range(15,30):

   for j in range(2,i):

        if (i%j==0):

           break

   else:

print(i ,end=" ")

Output:-

17 19 23 29

#write a multiplication table from 1 to 10

Code:-

for i in range(1,11):

    for j in range(1,11):

        print(i,"\*",j ,"=",(i\*j))

    print()

Output:-

1 \* 1 = 1

1 \* 2 = 2

1 \* 3 = 3

1 \* 4 = 4

1 \* 5 = 5

1 \* 6 = 6

1 \* 7 = 7

1 \* 8 = 8

1 \* 9 = 9

1 \* 10 = 10

2 \* 1 = 2

2 \* 2 = 4

2 \* 3 = 6

2 \* 4 = 8

2 \* 5 = 10

2 \* 6 = 12

2 \* 7 = 14

2 \* 8 = 16

2 \* 9 = 18

2 \* 10 = 20

3 \* 1 = 3

3 \* 2 = 6

3 \* 3 = 9

3 \* 4 = 12

3 \* 5 = 15

3 \* 6 = 18

3 \* 7 = 21

3 \* 8 = 24

3 \* 9 = 27

3 \* 10 = 30

4 \* 1 = 4

4 \* 2 = 8

4 \* 3 = 12

4 \* 4 = 16

4 \* 5 = 20

4 \* 6 = 24

4 \* 7 = 28

4 \* 8 = 32

4 \* 9 = 36

4 \* 10 = 40

5 \* 1 = 5

5 \* 2 = 10

5 \* 3 = 15

5 \* 4 = 20

5 \* 5 = 25

5 \* 6 = 30

5 \* 7 = 35

5 \* 8 = 40

5 \* 9 = 45

5 \* 10 = 50

6 \* 1 = 6

6 \* 2 = 12

6 \* 3 = 18

6 \* 4 = 24

6 \* 5 = 30

6 \* 6 = 36

6 \* 7 = 42

6 \* 8 = 48

6 \* 9 = 54

6 \* 10 = 60

7 \* 1 = 7

7 \* 2 = 14

7 \* 3 = 21

7 \* 4 = 28

7 \* 5 = 35

7 \* 6 = 42

7 \* 7 = 49

7 \* 8 = 56

7 \* 9 = 63

7 \* 10 = 70

8 \* 1 = 8

8 \* 2 = 16

8 \* 3 = 24

8 \* 4 = 32

8 \* 5 = 40

8 \* 6 = 48

8 \* 7 = 56

8 \* 8 = 64

8 \* 9 = 72

8 \* 10 = 80

9 \* 1 = 9

9 \* 2 = 18

9 \* 3 = 27

9 \* 4 = 36

9 \* 5 = 45

9 \* 6 = 54

9 \* 7 = 63

9 \* 8 = 72

9 \* 9 = 81

9 \* 10 = 90

10 \* 1 = 10

10 \* 2 = 20

10 \* 3 = 30

10 \* 4 = 40

10 \* 5 = 50

10 \* 6 = 60

10 \* 7 = 70

10 \* 8 = 80

10 \* 9 = 90

10 \* 10 = 100

#Blood donation program

print("WELCOME TO BLOOD DONATION CAMP")

age=int(input("enter the age"))

weight=int(input("enter the weight"))

h=int(input("enter the height"))

blood=input("enter blood group")

if(age>=19):

  if(weight>=45):

    if (h>=173):

      if("blood==o+" or "blood==o-" or "blood==b+" or "blood=b-"):

        print("eligible for blood donation camp")

      else:

         print(" not eligible for blood donation camp")

    else:

      print(" not eligible for blood donation camp")

  else:

    print(" not eligible for blood donation camp")

else:

  print(" not eligible for blood donation camp")

Output:-

WELCOME TO BLOOD DONATION CAMP

enter the age19

enter the weight45

enter the height173

enter blood groupo+

eligible for blood donation camp

#print the following pattern

\*

\* \*

\* \* \*

\* \* \* \*

Code:-

for i in range (1,5):

    for j in range (1,i+1):

        print("\*",end=" ")

    print()

Output:-

\*

\* \*

\* \* \*

\* \* \* \*

#print the following pattern

\* \* \* \*

\* \* \*

\* \*

\*

Code:-

for i in range (1,5):

    for j in range (0,5-i):

        print("\*",end=" ")

    print()

Output:-

\* \* \* \*

\* \* \*

\* \*

\*

#print the following pattern

 \*

     \* \*

  \* \* \*

\* \* \* \*

Code:-

for i in range (1,5):

    for j in range (1,5-i):

        print(" ",end=" ")

    for k in range(1,i+1):

         print("\*",end=" ")

    print()

Output:-

    \*

     \* \*

  \* \* \*

\* \* \* \*

#print the following pattern

1

1 2

1 2 3

1 2 3 4

Code:-

for row in range(1,5):

   num =1

   for coln in range (1,1+row):

     print(num,end=' ')

     num+=1

   print()

Output:-

1

1 2

1 2 3

1 2 3 4

#print the following pattern

A

A B

A B C

A B C D

Code:-

for row in range(1,5):

   num=65

   for coln in range (1,1+row):

       print(chr(num),end=' ')

       num+=1

   print()

Output:-

A

A B

A B C

A B C D

#How to stop infinite loop

Code:-

a,b=0,10

while(True):

    print("hello",end=" ")

    a+=1

    if(a==b):

        break

Output:-

hello hello hello hello hello hello hello hello hello hello

String

Code:-

s="hello"

print(s[4])

Output:-

O

Code:-

s="hello"

for i in s:

    print(i,end=' ')

Output:-

h e l l o

#string length

Code:-

s="hello"

print(len(s))    # gives the length

Output:-

5

#String joining and replication of string

s1="hello"

s2="world"

print(s1+s2)

print(s1\*3)

Output:-

helloworld

hellohellohello

#STRING slicing:

#variable[strat:stop:<step>]

Code:-

s="hello world"

print(s[1:5])

print(s[1:5:2])

print(s[:5])

print(s[::2])

Output:-

ello

el

hello

hlowrd

#reverse the string using slicing

Code:-

s="hello"

k=len(s)

'''

for i in range(-1,-k-1,-1):

    print(s[i],end='')

    '''

print(s[::-1])

Output:-

olleh

#String function

s="hello world"

print(s.capitalize())

print(s.upper())

print(s.isupper())

print(s.islower())

Output:-

Hello world

HELLO WORLD

False

True

Code:-

s="abc123$%"

print(s.capitalize())

print(s.upper())

print(s.isupper())

print(s.islower())

print(s.isdigit())

print(s.isalpha())

print(s.isalnum())

print(s.isspace())

print("\*".join(s))

print(" ".join(s))

print(s.split('h'))

Output:-

Abc123$%

ABC123$%

False

True

False

False

False

False

a\*b\*c\*1\*2\*3\*$\*%

a b c 1 2 3 $ %

['abc123$%']

#WAP to input a string and count the number of letters,digits,and special characters in a string.

Code:-

s=input("Enter string : ")

ch=dig=sc=0

for i in s:

    if i.isalpha():

        ch+=1

    elif i.isdigit():

        dig+=1

    else:

        sc+=1

print("letter",ch,"digit",dig,"speciap character",sc)

Output:-

Enter string : rajraushan0147@gmail.com

letter 18 digit 4 speciap character 2