1. See the output of following program.

print("Type 1")

for i in range(10): # start=0 , end=10,step=1

print(i,end=" ")

print("\nType 2")

for i in range(1,11): # start=1 , end=10,step=1

print(i,end=" ")

print("\nType 3")

for i in range(1,11,3): # start=1 , end=10,step=3

print(i,end=" ")

print("\nType 4")

for i in range(10,0,-1): # start=10 , end=0,step=-1

print(i,end=" ")

1. WAP to print natural numbers from 1 to 10.

# Condition Controlled Loop

a=1

while a<=10:

print(a)

a=a+1

1. WAP to print all the numbers from 1 to n.

n=int(input("Enter N: "))

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

print(i)

1. WAP to print the table of entered number.

n=int(input("Enter N: "))

for i in range(1,11):

print(n,"x",i,"=",i\*n)

1. WAP to find the sum of numbers upto n.

n=int(input("Enter N: "))

s=0

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

s=s+i

print("Sum = ",s)

1. WAP to find the factorial of any number.

n=int(input("Enter N: "))

f=1

for i in range(n,0,-1):

f=f\*i

print("Factorial = ",f)

1. WAP to enter any number and check if it is prime or not.

n=int(input("Enter N: "))

c=0

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

if n%i==0:

c=c+1

if c==2:

print(n,"is Prime")

else:

print(n,"is Not Prime")

1. WAP to enter any number and check if it is palindrome or not.

n=int(input("Enter Number: "))

m=n

rev=0

while(n>0):

dig=n%10

rev=rev\*10+dig

n=n//10

if rev==m:

print(m,"is Palindrome")

else:

print(m,"is not Palindrome")

# WAP TO Print all numbers between 1 to 1000 which are divisible by 7 and must not be divisible by 5

# # define range in variables

# # so that we can change them anytime

# begin = 1

# end = 1000

# # loop to check and print the numbers

# # which are divisible by 7 and not

# # divisible by 5

# for cnt in range(begin, end+1):

# if( cnt%7==0 and cnt%5!=0 ):

# print cnt, # command after cnt will print space

# BMI (Body Mass Index) calculator in Python

# # getting input from the user and assigning it to user

# height = float(input("Enter height in meters: "))

# weight = float(input("Enter weight in kg: "))

# # the formula for calculating bmi

# bmi = weight/(height\*\*2)

# # \*\* is the power of operator i.e height\*height in this case

# print("Your BMI is: {0} and you are: ".format(bmi), end='')

# #conditions

# if ( bmi < 16):

# print("severely underweight")

# elif ( bmi >= 16 and bmi < 18.5):

# print("underweight")

# elif ( bmi >= 18.5 and bmi < 25):

# print("Healthy")

# elif ( bmi >= 25 and bmi < 30):

# print("overweight")

# elif ( bmi >=30):

# print("severely overweight")

# WAP to enter a number and check if it is perfect number or not.

# if \_\_name\_\_ == "\_\_main\_\_" :

# # initialisation

# i = 2;sum = 1;

# # take input from user and typecast into integer

# n = int(input("Enter a number: "))

# # iterating till n//2 value

# while(i <= n//2 ) :

# # if proper divisor then add it.

# if (n % i == 0) :

# sum += i

# i += 1

# # check sum equal to n or not

# if sum == n :

# print(n,"is a perfect number")

# else :

# print(n,"is not a perfect number")

# WAP to print following patterns

Pattern 1:

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

# for row in range (0,5):

# for column in range (0, row+1):

# print ("\*", end="")

# # ending row

# print('\r')

1

1 1

1 1 1

1 1 1 1

1 1 1 1 1

#row operation

for row in range(0,5):

# column operation

for column in range(0,row+1):

print("1 ",end="")

# ending line

print('\r')

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

# #row operation

# for row in range (0, 5):

# n = 1

# # column operation

# for column in range (0, row+1):

# print(n, end=" ")

# n = n+1

# # ending line

# print('\r')

1

2 3

4 5 6

7 8 9 10

11 12 13 14

# n = 1

# #row operation

# for row in range (0, 5):

# # column operation

# for column in range (0, row+1):

# print(n, end=" ")

# n = n+1

# # ending line

# print('\r')

A

A B

A B C

A B C D

A B C D E

# #row operation

# for row in range (0, 5):

# n = 65

# # column operation

# for column in range (0, row+1):

# c = chr(n)

# print(c, end=" ")

# n = n+1

# # ending line

# print('\r')

1. WAP to check prime number.

num = int(input("Enter a number: "))

if num > 1:

   for i in range(2,num):

       if (num % i) == 0:

           print(num,"is not a prime number")

           print(i,"times",num//i,"is",num)

           break

   else:

       print(num,"is a prime number")

else:

   print(num,"is not a prime number")

1. WAP to print the fibonacci series upto nth term.

nterms = int(input("How many terms you want? "))

# first two terms

n1 = 0

n2 = 1

count = 2

# check if the number of terms is valid

if nterms <= 0:

   print("Plese enter a positive integer")

elif nterms == 1:

   print("Fibonacci sequence:")

   print(n1)

else:

   print("Fibonacci sequence:")

   print(n1,",",n2,end=', ')

   while count < nterms:

       nth = n1 + n2

       print(nth,end=' , ')

       # update values

       n1 = n2

       n2 = nth

       count += 1

1. WAP to compute the series: sum=1/1!+2/2!+3/3!+……+n/n!