**Program 1 :**

Write a Python program to print the following string in a specific format

Twinkle, twinkle, little star,

"How I wonder what you are! "

Up above the world so high,

Like a diamond in the sky.

Twinkle, ' twinkle ', little star,

How I wonder what you are

Using only one print() function.

print('''Twinkle, twinkle, little star,\n\t"How I wonder what you are! "\n\t\tUp above the world so high,\n\t\tLike a diamond in the sky.\nTwinkle, ' twinkle ', little star,\n\tHow I wonder what you are''')

**Program 2 :**

Program to show output formatting take two values and display them

using single print function using

• str.format()

• % operator

name = str(input("Enter your name : "))

age = int(input("Enter age : "))

print("""\nUsing str.format()

Your name is {}, you're {}\n""".format(name,age))

print("""Using modulo operator

Your name is %s, you're %d\n"""%(name,age)

**Program 3 :**

Program to find leap year using nested if

year = int(input("Enter the Year to be checked: "))

if(year % 4 == 0):

if(year % 100 !=0):

print("%d is a Leap Year" % year)

else :

if year % 400==0 :

print("%d is a Leap Year" % year)

else :

print("%d is Not the Leap Year" % year)

else:

print("%d is Not the Leap Year" % year)

**Program 4 :**

Program to print all armstrong number in range 1 to 1000.

for num in range(1, 1001):

n = len(str(num))

sum = 0

temp = num

while temp > 0:

digit = temp % 10

sum += digit \*\* n

temp = int(temp/10)

if num == sum:

print(num)

**Program 5 :**

Program to find fibonacci series of n terms.

n = int(input("Enter the value of 'n': "))

a = 0

b = 1

sum = 0

count = 1

print("Fibonacci Series: ", end=" ")

while(count <= n):

print(sum, end=" ")

a = b

b = sum

sum = a + b

count +=1

**Program 6 :**

Program on pattern

A \*\*\*\*\* 1 \*

B B \*\*\*\* 121 \* \*

C C C \*\*\* 12321 \* \* \*

D D D D \*\* 1234321 \* \* \* \*

E E E E E \* 123454321 \* \* \* \* \*

for i in range(5):

for j in range(i+1):

print(chr(i+65),end=" ")

print()

for i in range(5):

for j in range(i):

print(end=" ")

for j in range(5-i):

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

print()

for i in range(6):

for j in range(5-i):

print(end=" ")

for j in range(i+1):

print(j+1,end="")

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

print(j,end="")

print()

for i in range(5):

for j in range(5-i):

print(end=" ")

for j in range(i+1):

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

print()

**1.** Python program to

● Read an array and display

● Append a new item to the end of the array.

● To reverse the order of the items in the array (slice operator)

● Get the length in bytes of one array item

● To append items from another array

● Remove a specified item using the index from an array

● Insert a specified item at the specified position in the array

import array

arr = array.array('i')

x = int(input("Enter the length of array: "))

for i in range(0, x):

num = int(input("Enter element %d: "%i))

arr.append(num)

print("\nInitial array :")

for i in range (0, len(arr)):

print (arr[i], end =" ")

print()

arr.append(90)

print("\nAfter appending 90 :")

for i in range (0, len(arr)):

print (arr[i], end =" ")

print()

print("\nAfter reversing :")

rev=arr[::-1]

for i in range (0, len(arr)):

print (rev[i], end =" ")

print()

print("\nItem size :"+ str(arr.itemsize))

print("\nAfter removing element with index 1 :")

arr.pop(1)

for i in range (0, len(arr)):

print (arr[i], end =" ")

print()

print("\nAfter inserting 69 at index 3 :")

arr.insert(3, 69)

for i in range (0, len(arr)):

print (arr[i], end =" ")

print()

**2.** Python program to remove prime numbers from an array.

Sample input arr[] = {3,4,6,9,13,14,16,17}

Output arr[] = {4,6,9,13,16}

import array

arr = array.array('i',[3,4,6,9,13,14,16,17])

out = array.array('i',[])

print("\nInitial array :")

for i in range (0, len(arr)):

print (arr[i], end =" ")

print()

print("Filtered array :")

for i in range(len(arr)) :

composite = False

for j in range(2,arr[i]):

if(arr[i]%j==0) :

composite =True

break

if(composite) :

out.append(arr[i])

for i in range (0, len(out)):

print (out[i], end =" ")

print()

**3.** Python program to change all occurrences of a first character of a string to @ except for first occurrence.

Sample String : 'apple a day'

Expected Result : 'apple @ d@y'

string = str(input("Enter a string : "))

result = string.replace(string[0], '@')

print(string[0]+string[1:])

**4.** Python Program

● to sort group of strings into alphabetical order

● to check whether entered string is palindrome or not

n =int(input("Enter the number of strings : "))

a = []

for i in range(n) :

a.append(str(input()))

a.sort()

print("\nSorted string :")

for i in range (0, len(a)):

print (a[i], end =" ")

print("\n")

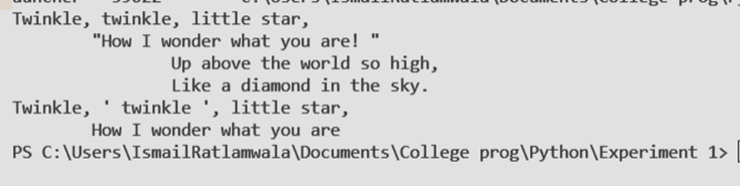
string= str(input("Enter the string to be checked : "))

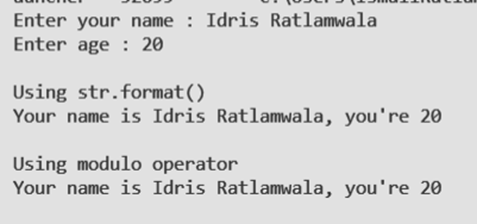
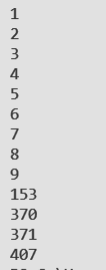
if(string==string[::-1]):

print(string+" is a Palindrome")

else :

print(string+" is not a Palindrome")

****

** **

