Programing Examples

July 5, 2022

Programming Examples

[1]:
```
#  Find Greatest Number Among Three Numbers
print("Progam to check greatest number among three numbers")
print("____________________________________________________________")
a=int(input("Please Enter First number : "))
b=int(input("Please Enter Second number : "))
c=int(input("Please Enter Third number : "))
if(a>b):
    if(a>c):
        print("%d is gretest number"%a)
    else:
        print("%d is gretest number"%c)
elif(b>c):
    print("%d is gretest number"%b)
else:
    print("%d is gretest number"%c)
```

```
Progam to check greatest number among three numbers
------------------------------------------------------------
Please Enter First number : 9
Please Enter Second number : 10
Please Enter Third number : 5
10 is gretest number
```

[2]:
```
# Reversing of String Using For Loop
# Iterate through a string
s = input("Enter Your String : ").casefold()
s1 = ''
for c in s:
    s1 = c + s1
print(s1)
```

```
Enter Your String : HSAI
iash
```

[3]:
```
# Reversing of String Using While Loop
s2 = ''
length = len(s) - 1
```

```
while length >= 0:
    s2 = s2 + s[length]
    length = length - 1
print(s2)
```

```
iash
```

[2]:
```
# Checking Whether Our String Is Palindrome
if s==s1:
    print("Your String Is Palindrome")
else:
    print("Your String Is Not A Palindrome")
```

```
Your String Is Not A Palindrome
```

[3]:
```
# Factorial Of Number
num = int(input("Enter a Number : "))

factorial = 1
if num < 0 :
    print(" invalid input")
elif num == 0:
    print(" factorial is 1")
else:
    for i in range( 1 , num+1):
        factorial = factorial * i
print(factorial)
```

```
Enter a Number : 5
120
```

[19]:
```
# Sort The List Bubble Sort
nlist = [14,46,43,27,57,41,45,25,70]
n = len(nlist)
for i in range(n-1):
    for j in range(0,n-i-1):
        if nlist[j]>nlist[j+1]:
            nlist[j],nlist[j+1]=nlist[j+1],nlist[j] #Swapping of numbers
print(nlist)
```

```
[14, 25, 27, 41, 43, 45, 46, 57, 70]
```

[7]:
```
#half pyramid pattern

rows = int(input("Enter the number of rows "))
# Asking user for the number of rows to create the outer loop
print("\r")
for i in range(0, rows):
    # According to the outer loop, values will be changing
```

```
    # The number of columns or the inner loop is given below
    for j in range(0, i + 1):
        # print star
        print("*", end=' ')
    # new line after each row
    print("\r")
```

```
Enter the number of rows 5

*
* *
* * *
* * * *
* * * * *
```

[9]:
```
#Alternate Solution
for j in range(1, rows+1):
    print("* " * j)
```

```
*
* *
* * *
* * * *
* * * * *
```

[10]:
```
# for Printing Downward half - Pyramid
rows = int(input("Enter the number of rows "))
# Asking user for the number of rows to create the outer loop
print("\r")
for i in range(rows+1,0,-1):
    # nested reverse loop
    for j in range(0, i - 1):
        # print star
        print("*", end=' ')
    # new line after each row
    print("\r")
```

```
Enter the number of rows 5

* * * * *
* * * *
* * *
* *
*
```

[11]:
```
#Two Pyramid in a Single Pattern - Arrow
rows = int(input("Please enter the number of rows : "))
# First we shall print the first pyramid pattern
```

```
for i in range(0, rows):
    for j in range(0, i + 1):
        print("*", end=' ')
    # After each iteration we need to change to new line
    print(" ")
# Then we shall print the second pyramid pattern
for i in range(rows + 1, 0, -1):
    for j in range(0, i - 1):
        print("*", end=' ')
    print(" ")
```

```
Please enter the number of rows : 5
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * *
* * *
* *
*
```

[12]:
```
#Equilateral Triangle Pyramid
rows = int(input("Please enter the number of rows : "))
m = (2 * rows) - 2
for i in range(0, rows):
    for j in range(0, m):
        print(end=" ")
    # after each loop we are decrementing the value of m
    m = m - 1
    for j in range(0, i + 1):
        print("* ", end='')
    print(" ")
```

```
Please enter the number of rows : 5
        *
       * *
      * * *
     * * * *
    * * * * *
```

[9]:
```
#Square Pattern with Number
rows = int(input("Please enter the number of rows :  "))
for i in range(1, rows + 1):
    for j in range(1, rows + 1):
```

```
        # If the value of j is smaller than or equal to i we shall be printing␣
↪i else we print j
        if j <= i:
            print(i, end=' ')
        else:
            print(j, end=' ')
    print()
```

```
Please enter the number of rows :  5
1 2 3 4 5
2 2 3 4 5
3 3 3 4 5
4 4 4 4 5
5 5 5 5 5
```

[10]:
```
#Right-angled pattern with characters
print("Printing the Right-angled pattern with characters ")
ASCII_Value = 65
#The value 65 is linked to letter A
for s in range(0, 6):
    for t in range(0, s + 1):
# This nested `for loop` will convert the ASCII value to its corresponding␣
↪character
        toprint_Alphabet = chr(ASCII_Value)
        print(toprint_Alphabet, end=' ')
        ASCII_Value= ASCII_Value + 1
    print()
```

```
Printing the Right-angled pattern with characters
A
B C
D E F
G H I J
K L M N O
P Q R S T U
```

[4]:
```
#Pushpa Dailouge
saruku = False
output = "Pushpa Present" if saruku == False else "Pushpa Absent"
print(output)
```

```
Pushpa Present
```

[17]:
```
#Nannaku Prematho 100 Soliders Problem
def nannakuprematho(soliders):
    near = 1
    while near*2 <=soliders: #64 -
        near *= 2
```

```
    return(soliders-near)*2+1


soliders = int(input("Enter the soliders :"))
print("The Person who is alive is : ",nannakuprematho(soliders))
```

```
Enter the soliders :100
The Person who is alive is :  73
```

0.1 To Do :

Pattern Programs

Display Letter of the Word in Pattern

Print First 10 natural numbers using while loop

Calculate the sum of all numbers from 1 to a given number For example, if the user entered 10 the output should be 55 (1+2+3+4+5+6+7+8+9+10)

Write a program to print multiplication table of a given number

Write a program to display only those numbers from a list that satisfy the following conditions The number must be divisible by five If the number is greater than 150, then skip it and move to the next number - (Contnuie) If the number is greater than 500, then stop the loop - (Break)

Write a program to count the total number of digits in a number using a while loop.

Print list in reverse order using a loop

Write a program to display all prime numbers within a range

Display Fibonacci series up to 10 terms

Reverse a given integer number

Use a loop to display elements from a given list present at odd index positions

Calculate the cube of all numbers from 1 to a given number

Write a program to calculate the sum of series up to n term. For example, if n =5 the series will become 2 + 22 + 222 + 2222 + 22222 = 24690

Write a program to display sum of odd numbers and even numbers that fall between 12 and 37 (including both numbers)

Write a program to accept a number and check whether it is a perfect number or not.

Accept a number and check whether it is palindrome or not.

Write a program in Python to reverse a number.

Write a python program to print the square of all numbers from 0 to 10

Write a python program to read three numbers (a,b,c) and check how many numbers between ‘a’ and ‘b’ are divisible by ‘c’