Lab 3

August 10, 2023

[1]:
```
num = int(input("Enter a number: "))
sum = 0
temp = num
while temp > 0:
   digit = temp % 10
   sum += digit ** 3
   temp //= 10
if num == sum:
   print(num,"is an Armstrong number")
else:
   print(num,"is not an Armstrong number")
```

```
Enter a number: 444
444 is not an Armstrong number
```

[4]:
```
n = int(input("Enter the Value of n = "))
k = n - 1
for i in range(0, n):
    for j in range(0, k):
        print(end=" ")
    k = k - 1
    for j in range(0, i+1):
        print("* ", end="")
    print("\r")
```

```
Enter the Value of n = 6
     *
    * *
   * * *
  * * * *
 * * * * *
* * * * * *
```

[5]:
```
    n = int(input("Enter the Value of n = "))
    num = 1
    for i in range(0, n):
        num = 1
        for j in range(0, i+1):
            print(num, end=" ")
```

```
            num = num + 1
        print("\r")
```

```
Enter the Value of n = 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

[6]:
```
    n = int(input("Enter the Value of n = "))
    num = 1
    for i in range(0, n):
        for j in range(0, i+1):
            print(num, end=" ")
            num = num + 1
        print("\r")
```

```
Enter the Value of n = 5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

[7]:
```
    n = int(input("Enter the Value of n = "))
    num = 65
    for i in range(0, n):
        for j in range(0, i+1):
            ch = chr(num)
            print(ch, end=" ")
        num = num + 1

        print("\r")
```

```
Enter the Value of n = 4
A
B B
C C C
D D D D
```

[8]:
```
    n = int(input("Enter the Value of n = "))
    num = 65
    for i in range(0, n):
        for j in range(0, i+1):
            ch = chr(num)
            print(ch, end=" ")
            num = num + 1
        print()
```

```
Enter the Value of n = 4
A
B C
D E F
G H I J
```

[9]:
```
#Using single quotes
str1 = 'Hello Python'
print(str1)
#Using double quotes
str2 = "Hello Python"
print(str2)

#Using triple quotes
str3 = '''''Triple quotes are generally used for
    represent the multiline or
    docstring'''
print(str3)
```

```
Hello Python
Hello Python
''Triple quotes are generally used for
    represent the multiline or
    docstring
```

[10]:
```
str = "HELLO"
print(str[0])
print(str[1])
print(str[2])
print(str[3])
print(str[4])
# It returns the IndexError because 6th index doesn't exist
print(str[6])
```

```
H
E
L
L
O
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
Input In [10], in <cell line: 8>()
      6 print(str[4])
      7 # It returns the IndexError because 6th index doesn't exist
----> 8 print(str[6])

IndexError: string index out of range
```

[11]:
```
# Given String
str = "Python Programming"
# Start 0th index to end
print(str[0:])
# Starts 1th index to 4th index
print(str[1:5])
# Starts 2nd index to 3rd index
print(str[2:4])
# Starts 0th to 2nd index
print(str[:3])
#Starts 4th to 6th index
print(str[4:7])
```

```
Python Programming
ytho
th
Pyt
on
```

[12]:
```
str = 'Python Programming'
print(str[-1])
print(str[-3])
print(str[-2:])
print(str[-4:-1])
print(str[-7:-2])
# Reversing the given string
print(str[::-1])
print(str[-12])
```

```
g
i
ng
min
rammi
gnimmargorP nohtyP
```

[13]:
```
str1 = "JAVATPOINT"
del str1
print(str1)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Input In [13], in <cell line: 3>()
      1 str1 = "JAVATPOINT"
      2 del str1
----> 3 print(str1)
```

```
NameError: name 'str1' is not defined
```

[14]:
```
str = "Hello"
str1 = " world"
print(str*3) # prints HelloHelloHello
print(str+str1)# prints Hello world
print(str[4]) # prints o
print(str[2:4]); # prints ll
print('w' in str) # prints false as w is not present in str
print('wo' not in str1) # prints false as wo is present in str1.
print(r'C://python37') # prints C://python37 as it is written
print("The string str : %s"%(str)) # prints The string str : Hello
```

```
HelloHelloHello
Hello world
o
ll
False
False
C://python37
The string str : Hello
```

[15]:
```
print("C:\\Users\\DEVANSH SHARMA\\Python32\\Lib")
print("This is the \n multiline quotes")
print("This is \x48\x45\x58 representation")
```

```
C:\Users\DEVANSH SHARMA\Python32\Lib
This is the
 multiline quotes
This is HEX representation
```

[16]:
```
# Using Curly braces
print("{} and {} both are the best friend".format("Devansh","Abhishek"))

#Positional Argument
print("{1} and {0} best players ".format("Virat","Rohit"))

#Keyword Argument
print("{a},{b},{c}".format(a = "James", b = "Peter", c = "Ricky"))
```

```
Devansh and Abhishek both are the best friend
Rohit and Virat best players
James,Peter,Ricky
```

[17]:
```
Integer = 10;
Float = 1.290
String = "Devansh"
```

```
print("Hi I am Integer ... My value is %d\nHi I am float ... My value is %f\nHi␣
 ↪I am string ... My value is %s"%(Integer,Float,String))
```

```
Hi I am Integer … My value is 10
Hi I am float … My value is 1.290000
Hi I am string … My value is Devansh
```

[18]:
```
# Python3 program to show the
# working of upper() function
text = 'geeKs For geEkS'

# upper() function to convert
# string to upper case
print("\nConverted String:")
print(text.upper())

# lower() function to convert
# string to lower case
print("\nConverted String:")
print(text.lower())

# converts the first character to
# upper case and rest to lower case
print("\nConverted String:")
print(text.title())

#swaps the case of all characters in the string
# upper case character to lowercase and viceversa
print("\nConverted String:")
print(text.swapcase())

# convert the first character of a string to uppercase
print("\nConverted String:")
print(text.capitalize())

# original string never changes
print("\nOriginal String")
print(text)
```

```
Converted String:
GEEKS FOR GEEKS

Converted String:
geeks for geeks

Converted String:
Geeks For Geeks
```

```
Converted String:
GEEkS fOR GEeKs

Converted String:
Geeks for geeks

Original String
geeKs For geEkS
```

[ ]: