**ASSIGNMENT - 03**

**Q. Find the Armstrong Number between the two numbers which are input by user.**

lower = int(input("Enter lower range: "))

upper = int(input("Enter upper range: "))

for num in range(lower,upper + 1):

sum = 0

temp = num

while temp > 0:

digit = temp % 10

sum += digit \*\* 3

temp //= 10

if num == sum:

print(num)

**OUTPUT:**

Enter lower range: 100

Enter upper range: 1000

153 -> 1\*1\*1 + 5\*5\*5 + 3\*3\*3

**Q. Let’s say you have a string “hello this world @2020!!! ”**

**(a) Remove the punctuation like [“@!#$%&\*()”] from the string**

punctuations = '''!()-[]{};:'"\,<>./?@#$%^&\*\_~'''

my\_str = "hello this world @2020!!!"

no\_punct = ""

for char in my\_str:

if char not in punctuations:

no\_punct = no\_punct + char

print(no\_punct)

**OUTPUT:**

hello this world 2020

**(b) Final output should be without the punctuation**

punctuations = '''!()-[]{};:'\,<>./?@#$%^&\*\_~'''

my\_str = "hello this world @2020!!!"

no\_punct = ""

for char in my\_str:

if char not in punctuations:

no\_punct = no\_punct + char

print(no\_punct)

**OUTPUT:**

“hello this world 2020”

**Q. You have a list with words - [“Apple”, “banana”, “cat”, “REGEX”,”apple”]**

**(a) Sort words in Alphabetical order**

lst = ["Apple", "banana", "cat", "REGEX","apple"]

lst.sort()

print(lst)

**OUTPUT:**

['Apple', 'REGEX', 'apple', 'banana', 'cat']

**(b) If you get output, like [Apple, apple, banana]. How has it happened?**

If you get output, like [Apple, apple, banana] , it is because while sorting it it sorts first according to the capital letters and then it sorts according to the smaller one. That’s why , in the above case, First it sorts “Apple” because the word “Apple” starts with capital “A” and then it sorts “apple” as it starts with small “a”.