

```
time complexity.py - C:\Users\praji\AppData\Local\Programs\Python\Python312\time complexity.py (3.12.2)
File Edit Format Run Options Window Help
#0(n)
                                                                                              IDLE Shell 3.12.2
                                                                                                                                                                             ×
def linear search (data, value):
    for index in range(len(data)):
                                                                                             File Edit Shell Debug Options Window Help
        if data[index] == value:
                                                                                                 Python 3.12.2 (tags/v3.12.2:6abddd9, Feb 6 2024, 21:26:36) [MSC v.1937 64 bit (
            return index
                                                                                                AMD64)] on win32
    return -1
                                                                                                Type "help", "copyright", "credits" or "license()" for more information.
data = [2, 4, 6, 8, 10]
value = 6
                                                                                                = RESTART: C:\Users\praji\AppData\Local\Programs\Python\Python312\time complexit
print ("THE VALUE IS FOUND IN: ", linear search (data, value))
                                                                                                THE VALUE IS FOUND IN: 2
#o(n^2)
                                                                                                the sorted array is: [11, 12, 22, 25, 34, 64, 90]
def bubble sort (data):
   n = len(data)
    for i in range(n):
        for j in range (0, n - i - 1):
            if data[j] > data[j + 1]:
                data[j], data[j + 1] = data[j + 1], data[j]
data = [64, 34, 25, 12, 22, 11, 90]
bubble sort(data)
print("the sorted array is: ", data)
                                                                                                                                                                               Ln: 7 Col: 0
                                                                                                                                                                                               Ln: 9 Col: 32
```





















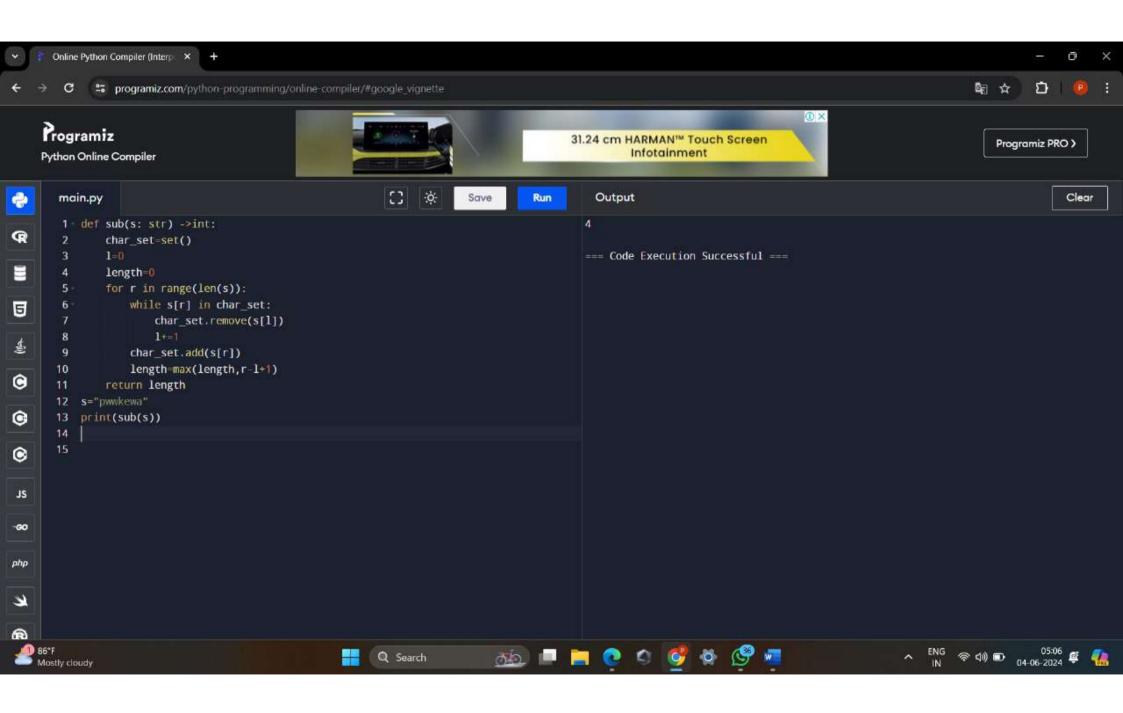


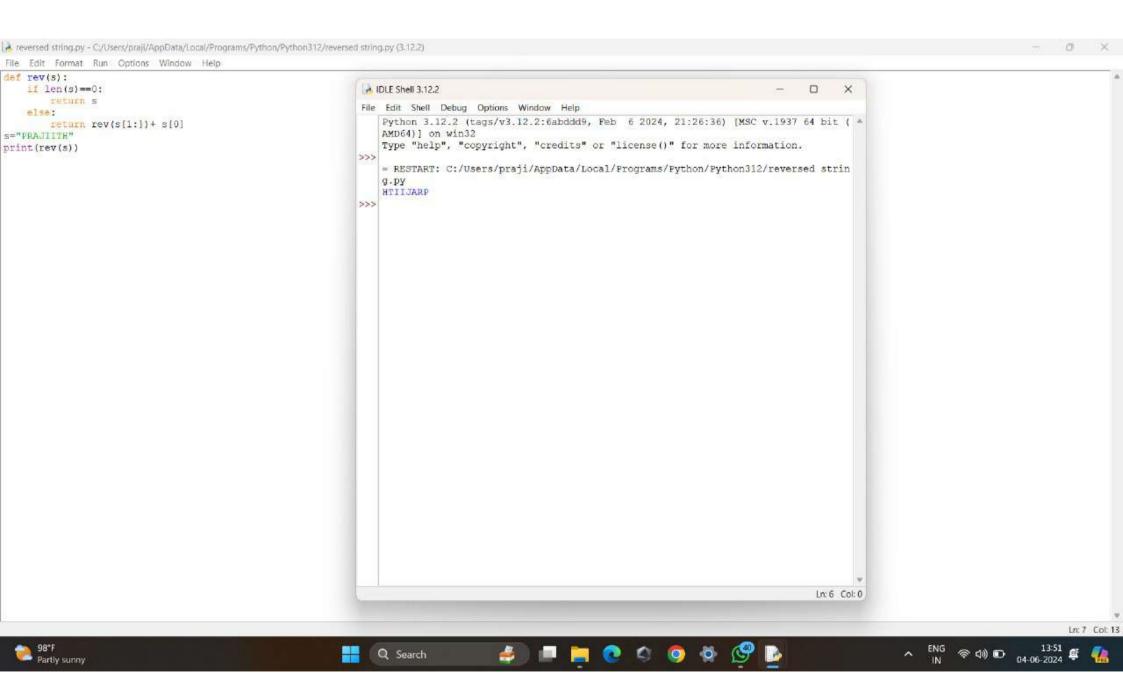


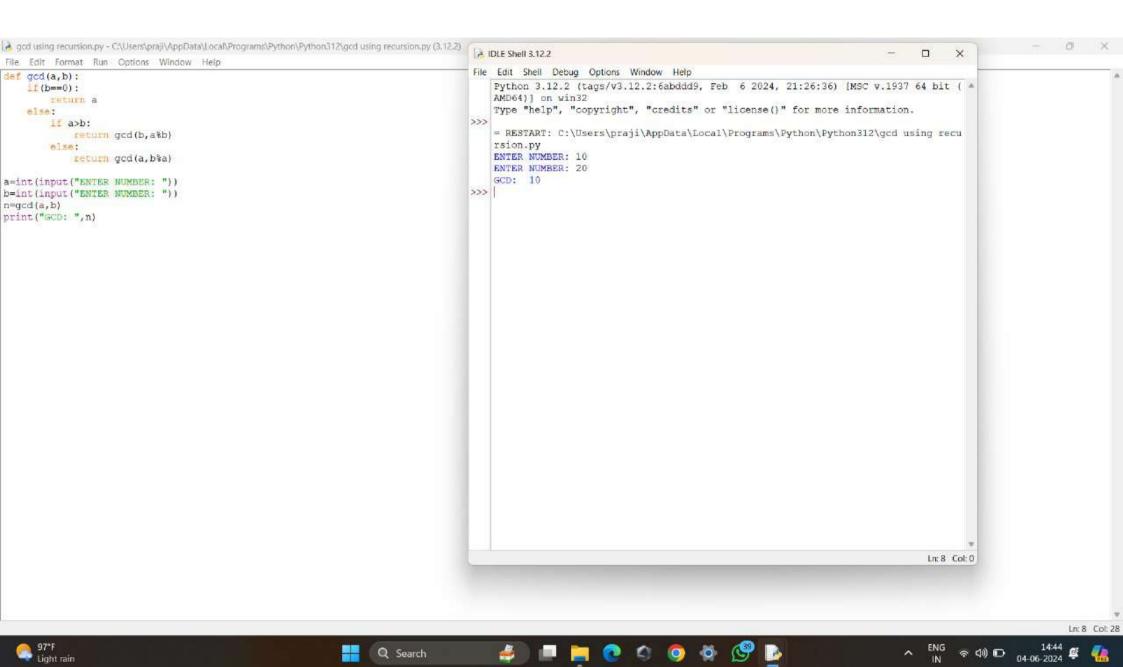


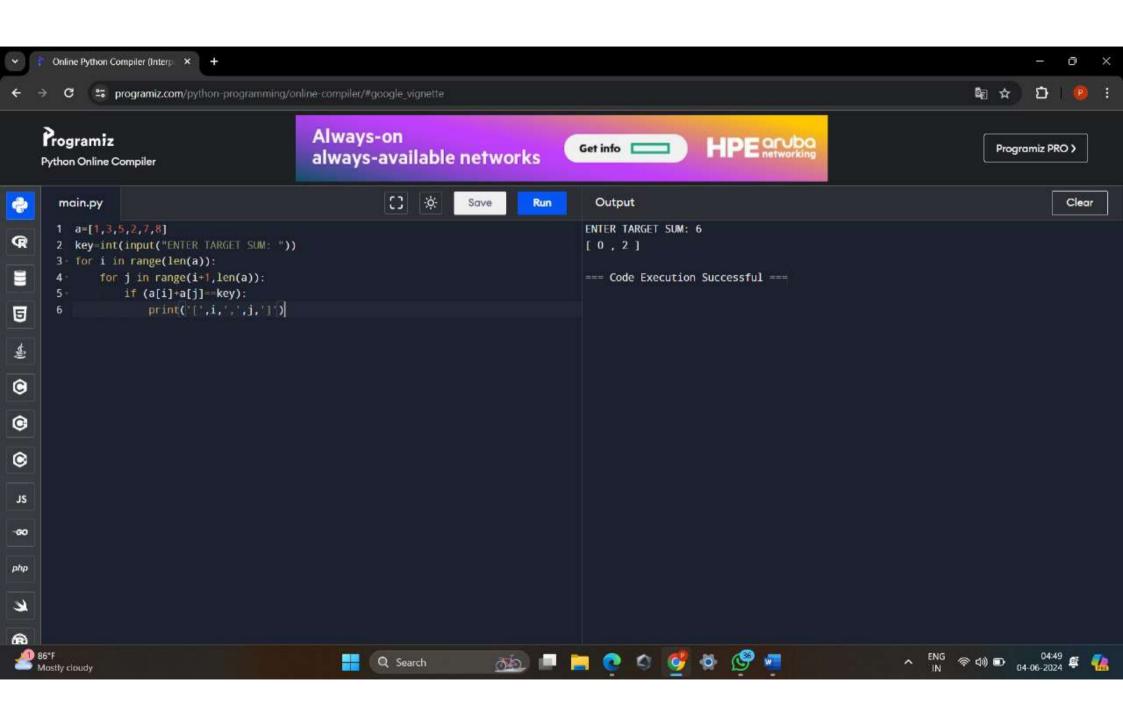


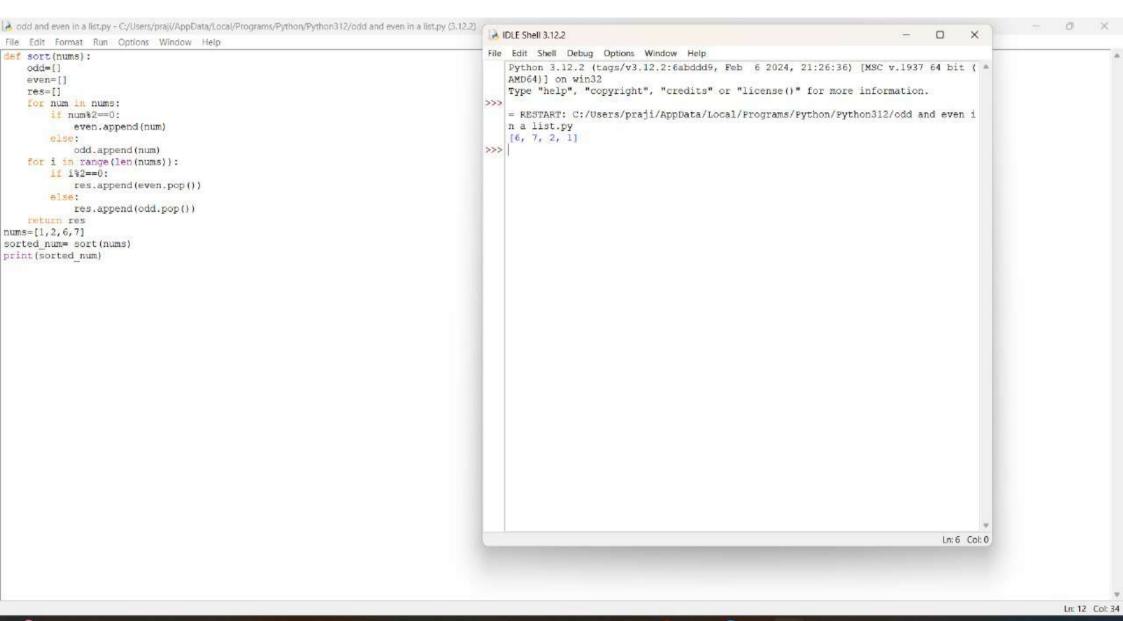
































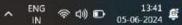














```
AppData/Local/Programs/Python/Python312/rom to int.py (3.12.2)
File Edit Format Run Options Window Help
s=input("ENTER ROMAN NUMBER: ")
                                                                                           → IDLE Shell 3.12.2
                                                                                                                                                                        0
                                                                                          File Edit Shell Debug Options Window Help
                                                                                              Python 3.12.2 (tags/v3.12.2:6abddd9, Feb 6 2024, 21:26:36) [MSC v.1937 64 bit (
rom={'I':1,'V':5,'K':10,'L':50,'C':100,'D':500,'M':1000}
                                                                                             AMD64)] on win32
                                                                                             Type "help", "copyright", "credits" or "license()" for more information.
for i in range(len(s)):
    if i+1<len(s) and rom[s[i]]<rom[s[i+1]]:
                                                                                             = RESTART: C:/Users/praji/AppData/Local/Programs/Python/Python312/rom to int.py
       res-=rom[s[i]]
                                                                                             27
                                                                                         >>>
       res+=rom[s[i]]
                                                                                             = RESTART: C:/Users/praji/AppData/Local/Programs/Python/Python312/rom to int.py
                                                                                             ENTER ROMAN NUMBER: XXVII
print ("THE ROMAN NUMBER IS : ",s)
                                                                                             THE ROMAN NUMBER IS : XXVII
                                                                                             THE INTEGER NUMBER IS : 27
print("THE INTEGER NUMBER IS : ", res)
                                                                                         >>>
                                                                                                                                                                        Ln: 11 Col: 0
                                                                                                                                                                                        Ln: 13 Col: 32
```

































