

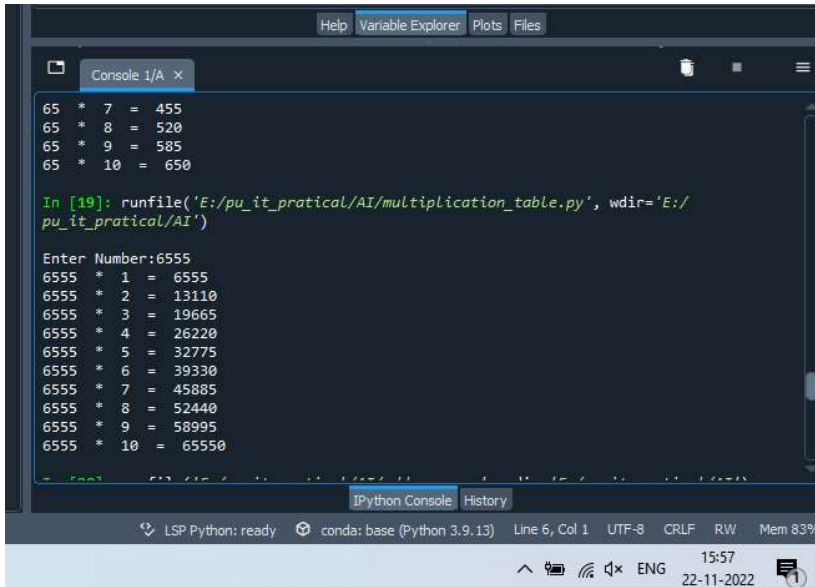
## PRACTICAL-2

**A)AIM:** Write a python program to print the multiplication table for the given number.

**Code:**

```
x = int(input("Enter Number:"))
a=1
while(a<=10):
    print(x, ' * ',a, ' = ',a*x)
    a=a+1
```

**Output:**



```
65 * 7 = 455
65 * 8 = 520
65 * 9 = 585
65 * 10 = 650

In [19]: runfile('E:/pu_it_practical/AI/multiplication_table.py', wdir='E:/
pu_it_practical/AI')

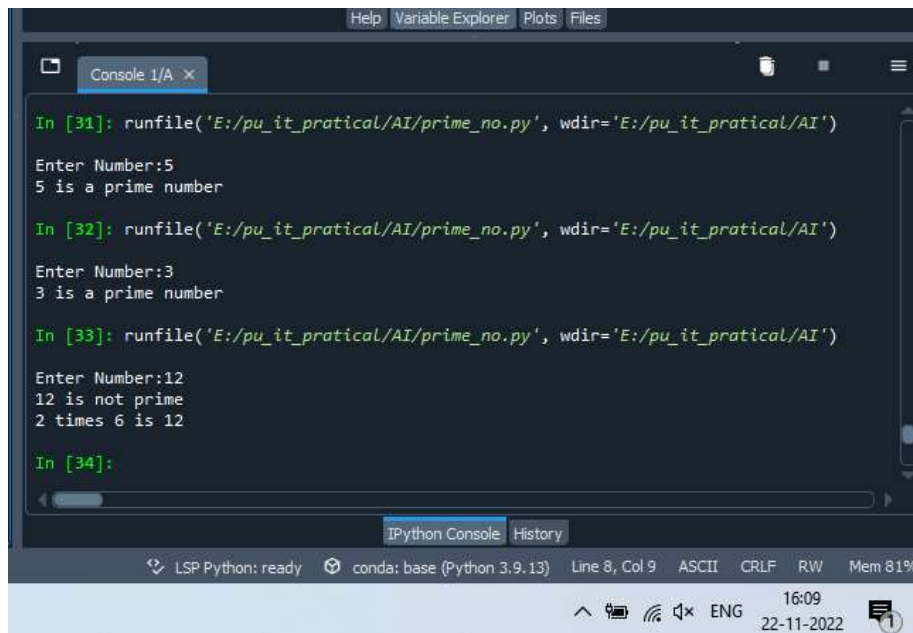
Enter Number:6555
6555 * 1 = 6555
6555 * 2 = 13110
6555 * 3 = 19665
6555 * 4 = 26220
6555 * 5 = 32775
6555 * 6 = 39330
6555 * 7 = 45885
6555 * 8 = 52440
6555 * 9 = 58995
6555 * 10 = 65550
```

**B)AIM:** Write a python program to check whether the given number is prime or not.

**Code:**

```
x = int(input("Enter Number:"))
if x > 1:
    for n in range(2, x):
        if (x % n) == 0:
            print(x, "is not prime")
            print(n, "times", x // n, "is", x)
            break
    else:
        print(x, "is a prime number")
else:
    print(x, "is not prime number")
```

## Output:



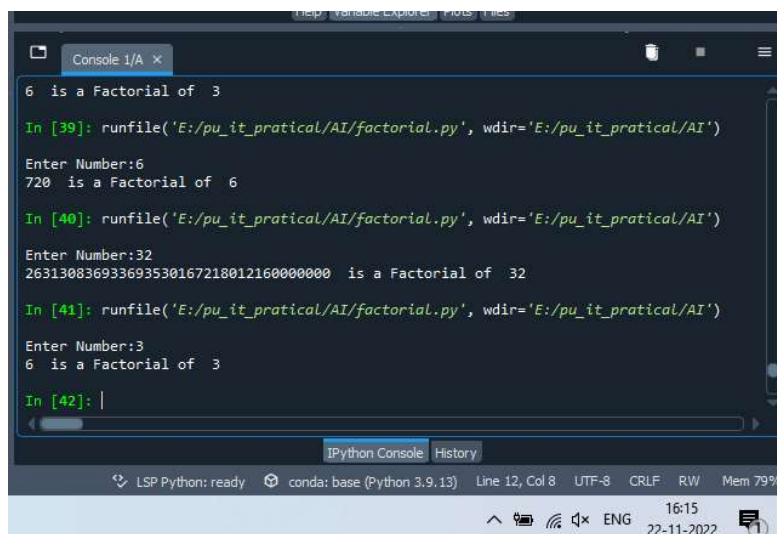
```
Help Variable Explorer Plots Files
Console 1/A x
In [31]: runfile('E:/pu_it_pratical/AI/prime_no.py', wdir='E:/pu_it_pratical/AI')
Enter Number:5
5 is a prime number
In [32]: runfile('E:/pu_it_pratical/AI/prime_no.py', wdir='E:/pu_it_pratical/AI')
Enter Number:3
3 is a prime number
In [33]: runfile('E:/pu_it_pratical/AI/prime_no.py', wdir='E:/pu_it_pratical/AI')
Enter Number:12
12 is not prime
2 times 6 is 12
In [34]:
IPython Console History
LSP Python: ready conda: base (Python 3.9.13) Line 8, Col 9 ASCII CRLF RW Mem 81%
16:09
22-11-2022
```

**C) AIM:** Write a python program to find factorial of the given number.

## Code:

```
a = int(input("Enter Number:"))
p=1
i=a
while(a>1):
    p=p*a
    a=a-1
print(p," is a Factorial of ",i)
```

## Output:



```
Help Variable Explorer Plots Files
Console 1/A x
6 is a Factorial of 3
In [39]: runfile('E:/pu_it_pratical/AI/factorial.py', wdir='E:/pu_it_pratical/AI')
Enter Number:6
720 is a Factorial of 6
In [40]: runfile('E:/pu_it_pratical/AI/factorial.py', wdir='E:/pu_it_pratical/AI')
Enter Number:32
263130836933693530167218012160000000 is a Factorial of 32
In [41]: runfile('E:/pu_it_pratical/AI/factorial.py', wdir='E:/pu_it_pratical/AI')
Enter Number:3
6 is a Factorial of 3
In [42]: |
IPython Console History
LSP Python: ready conda: base (Python 3.9.13) Line 12, Col 8 UTF-8 CRLF RW Mem 79%
16:15
22-11-2022
```

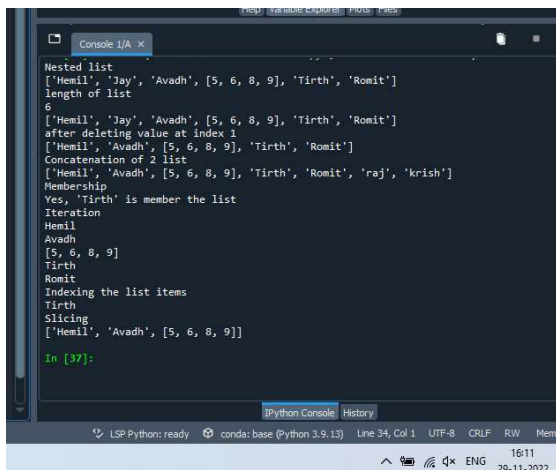
## PRACTICAL-4

**AIM: A) Write a python program to implement List operations (Nested List, Length, Concatenation, Membership, Iteration, Indexing and Slicing)?**

### Code:

```
list_name = ['Hemil','Jay','Avadh',[5,6,8,9],'Tirth','Romit']
print('Nested list')
print(list_name)                    #nested list
print('length of list')
print(len(list_name))              #printing length of list
print(list_name)                   #printing original list
list_name.pop(1)                   #delete value at index 1
print('after deleting value at index 1')
print(list_name)                   #printing list after pop
list_items = ['raj','krish']
print('Concatenation of 2 list')
print(list_name+list_items)        #Concatenation of 2 list
print('Membership')
if "Tirth" in list_name:
    print("Yes, 'Tirth' is member the list") # printing the membership of the list
print('Iteration')                 #Iteration
i = 0
while i < len(list_name):
    print(list_name[i])
    i = i + 1
print('Indexing the list items')    #indexing
print(list_name[3])
print('Slicing')                   #Slicing
print(list_name[0:3])
```

### Output A:



```
Console 1/A x
Nested list
['Hemil', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
length of list
6
['Hemil', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
after deleting value at index 1
['Hemil', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
Concatenation of 2 list
['Hemil', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit', 'raj', 'krish']
Membership
Yes, 'Tirth' is member the list
Iteration
Hemil
Avadh
[5, 6, 8, 9]
Tirth
Romit
Indexing the list items
Tirth
Slicing
['Hemil', 'Avadh', [5, 6, 8, 9]]

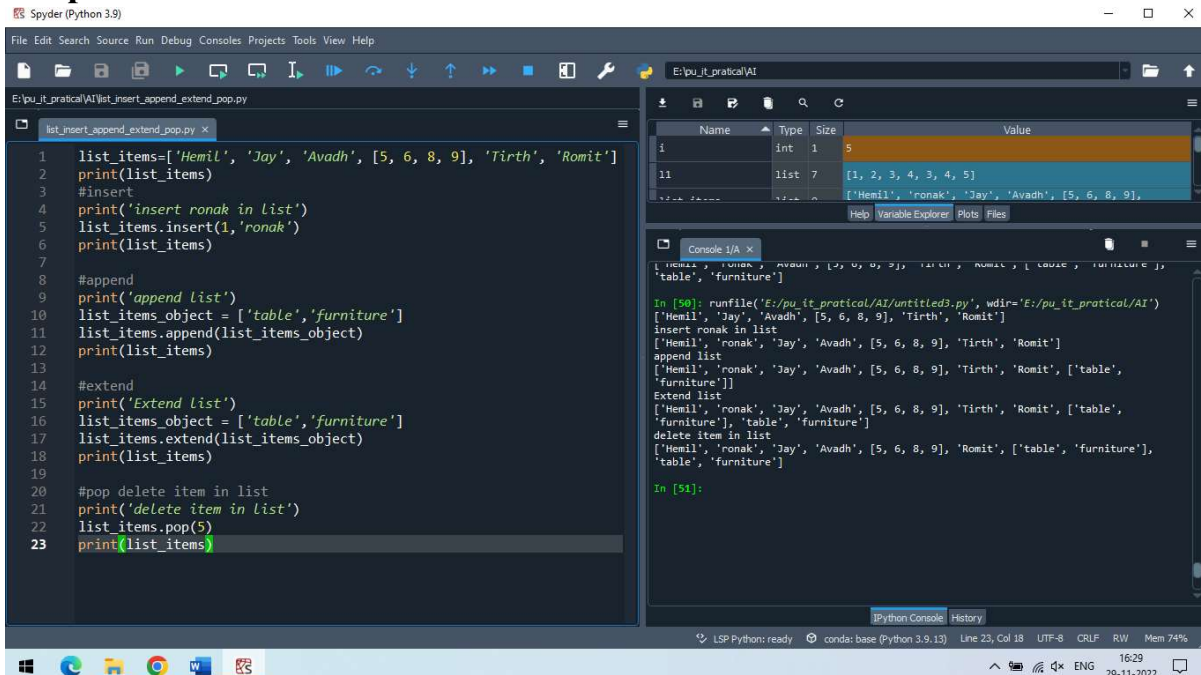
In [37]:
```

## B) Write a python program to implement List methods (Add, Append, Extend & Delete).

### Code:

```
list_items=['Hemil', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
print(list_items)
#insert
print('insert ronak in list')
list_items.insert(1,'ronak')
print(list_items)
#append
print('append list')
list_items_object = ['table','furniture']
list_items.append(list_items_object)
print(list_items)
#extend
print('Extend list')
list_items_object = ['table','furniture']
list_items.extend(list_items_object)
print(list_items)
#pop delete item in list
print('delete item in list')
list_items.pop(5)
print(list_items)
```

### Output B:



```
File Edit Search Source Run Debug Consoles Projects Tools View Help
E:\pu_it_practical\AI\list_insert_append_extend_pop.py
list_insert_append_extend_pop.py x
1 list_items=['Hemil', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
2 print(list_items)
3 #insert
4 print('insert ronak in list')
5 list_items.insert(1,'ronak')
6 print(list_items)
7
8 #append
9 print('append list')
10 list_items_object = ['table','furniture']
11 list_items.append(list_items_object)
12 print(list_items)
13
14 #extend
15 print('Extend list')
16 list_items_object = ['table','furniture']
17 list_items.extend(list_items_object)
18 print(list_items)
19
20 #pop delete item in list
21 print('delete item in list')
22 list_items.pop(5)
23 print(list_items)

Name Type Size Value
i int 1 5
11 list 7 [1, 2, 3, 4, 3, 4, 5]
... ... ... ['Hemil', 'ronak', 'Jay', 'Avadh', [5, 6, 8, 9],
Help Variable Explorer Plots Files

Console /AI x
In [50]: runfile('E:/pu_it_practical/AI/untitled3.py', wdir='E:/pu_it_practical/AI')
['Hemil', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
insert ronak in list
['Hemil', 'ronak', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit']
append list
['Hemil', 'ronak', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit', ['table',
'furniture']]
Extend list
['Hemil', 'ronak', 'Jay', 'Avadh', [5, 6, 8, 9], 'Tirth', 'Romit', ['table',
'furniture'], 'table', 'furniture']
delete item in list
['Hemil', 'ronak', 'Jay', 'Avadh', [5, 6, 8, 9], 'Romit', ['table', 'furniture'],
'table', 'furniture']
In [51]:

LSP Python: ready conda: base (Python 3.9.13) Line 23, Col 18 UTF-8 CRLF RW Mem 74%
16:29
29-11-2022
```