In [1]:
```python
list1=[1,2,3]
list2=["a","apple",1]
print(list1)
print(list2)
```

```
[1, 2, 3]
['a', 'apple', 1]
```

In [4]:
```python
list3=[i for i in range(10)] #-----------------1D LIST
print(list3)
```

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [7]:
```python
list4=[[1,2,3]for i in range(10)]
print(list4)
```

```
[[1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2, 3], [1, 2,
3], [1, 2, 3], [1, 2, 3]]
```

In [8]:
```python
list4=[list3 for i in range(10)]
print(list4)
```

```
[[0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5,
6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1,
2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8,
9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9], [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]]
```

In [11]:
```python
list5=[[j for j in range(5)]  for i in range(5) ]
print(list5)
```

```
[[0, 1, 2, 3, 4], [0, 1, 2, 3, 4], [0, 1, 2, 3, 4], [0, 1, 2, 3, 4], [0, 1, 2, 3,
4]]
```

In [12]:
```python
list5=[[j*j for j in range(5)]  for i in range(5) ]
print(list5)
```

```
[[0, 1, 4, 9, 16], [0, 1, 4, 9, 16], [0, 1, 4, 9, 16], [0, 1, 4, 9, 16], [0, 1, 4,
9, 16]]
```

In [13]:
```python
list6=[[j+i for j in range(5)]  for i in range(5) ]
print(list6)
```

```
[[0, 1, 2, 3, 4], [1, 2, 3, 4, 5], [2, 3, 4, 5, 6], [3, 4, 5, 6, 7], [4, 5, 6, 7,
8]]
```

In [16]:
```python
list7=[[5*i+j for j in range(5)]  for i in range(5) ]
print(list7)
```

```
[[0, 1, 2, 3, 4], [5, 6, 7, 8, 9], [10, 11, 12, 13, 14], [15, 16, 17, 18, 19], [20,
21, 22, 23, 24]]
```

In [17]:
```python
list8=[[3*i+j for j in range(5)]  for i in range(5) ]
print(list8)
```

```
[[0, 1, 2, 3, 4], [3, 4, 5, 6, 7], [6, 7, 8, 9, 10], [9, 10, 11, 12, 13], [12, 13, 1
4, 15, 16]]
```

In [25]:
```python
r=int(input("Enter number of rows:"))
```

```
    c=int(input("Enter number of columns:"))
    list9=[int(x) for x in input()]
    print("1D List: ",list9)
```

```
Enter number of rows:2
Enter number of columns:2
9876
1D List:  [9, 8, 7, 6]
```

In [34]:

```
#continuation to line 22 (1d list) this is 2 d list
list=[100]
for i in range(r):
    list.append([])
    for j in range(c):
        list[i].append(list[c*i+j])

print(list)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
<ipython-input-34-731bf18c4219> in <module>
      4     list.append([])
      5     for j in range(c):
----> 6         list[i].append(list[c*i+j])
      7
      8 print(list)

AttributeError: 'int' object has no attribute 'append'
```

In [ ]: