Assignment 5A - Python

List Data Type

In [2]:
```
l = []
l
```

Out[2]:
```
[]
```

In [3]:
```
type(l)
```

Out[3]:
```
list
```

In [4]:
```
l.append(10)
print(l)
```

```
[10]
```

In [5]:
```
print(l.append(20))
print(l.append(30))
print(l.append(40))
print(l)
```

```
None
None
None
[10, 20, 30, 40]
```

In [6]:
```
l.append(70,80,90)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[6], line 1
----> 1 l.append(70,80,90)

TypeError: list.append() takes exactly one argument (3 given)
```

In [7]:
```
l.append(78)
print(l)
print(len(l))
```

```
[10, 20, 30, 40, 78]
5
```

In [8]:
```
l1 = l.copy()
print(l1)
```

```
[10, 20, 30, 40, 78]
```

In [9]:
```
l1.append(2.3)
l1.append('vihari')
```

```
l1.append(1+2j)
l1.append([1,2,3])

print(l)
print(l1)
print(len(l))
print(len(l1))
```

```
[10, 20, 30, 40, 78]
[10, 20, 30, 40, 78, 2.3, 'vihari', (1+2j), [1, 2, 3]]
5
9
```

In [10]:
```
l == l1
```

Out[10]: False

In [11]:
```
l2 = l.copy()
print(l2)
l == l2
```

```
[10, 20, 30, 40, 78]
```

Out[11]: True

In [12]:
```
print(l)
print(l1)
print(l2)
```

```
[10, 20, 30, 40, 78]
[10, 20, 30, 40, 78, 2.3, 'vihari', (1+2j), [1, 2, 3]]
[10, 20, 30, 40, 78]
```

In [13]:
```
print(l[:])
print(l[0])
l[0] = 100
print(l)
```

```
[10, 20, 30, 40, 78]
10
[100, 20, 30, 40, 78]
```

In [14]:
```
l[-1] = 200
print(l)
```

```
[100, 20, 30, 40, 200]
```

In [15]:
```
l[3:]
```

Out[15]: [40, 200]

In [16]:
```
l[10:]
```

Out[16]: []

In [17]:
```
l[:10]
```

Out[17]: [100, 20, 30, 40, 200]

In [18]:
```
l2.clear()
print(l2)
```

```
[]
```

In [19]:
```
del l1
print(l1)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[19], line 2
      1 del l1
----> 2 print(l1)

NameError: name 'l1' is not defined
```

In [23]:
```
l1 = [10, 20, 30, 40, 'IoT']
l1[0:12:5]
```

Out[23]: [10]

In [22]:
```
l1[0:11:3]
```

Out[22]: [10, 40]

In [24]:
```
l1.index('IoT')
```

Out[24]: 4