In [1]:
```
car_list = [ 'Hona Accura', 'Honda Civic', 'Hona Odessy', 'Toyota Rav4', 'Toyota Cy
```

In [3]:
```
car_list
```

Out[3]:
```
['Hona Accura',
 'Honda Civic',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [5]:
```
car_num = [ 1234, 4567, 8910, 111, 231, 123131 ]
```

In [7]:
```
car_num
```

Out[7]:
```
[1234, 4567, 8910, 111, 231, 123131]
```

In [9]:
```
list_flot = [ 110.11, 22.22, 1212,00, 12131.12121]
```

In [11]:
```
list_flot
```

Out[11]:
```
[110.11, 22.22, 1212, 0, 12131.12121]
```

In [13]:
```
list_bool = [ 'False', 'True']
```

In [15]:
```
lits_bool
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[15], line 1
----> 1 lits_bool

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

In [17]:
```
list_bool
```

Out[17]:
```
['False', 'True']
```

In [19]:
```
list_mixed = [ 1233, 'Name' , 12121.222 , True, ['ABC', 'ASAS']]
```

In [21]:
```
list_mixed
```

Out[21]:
```
[1233, 'Name', 12121.222, True, ['ABC', 'ASAS']]
```

In [23]:
```
print type(list_mixed)
print type(list_bool)
print type(list_flot)
print type(car_num)
print type(car_list)
```

```
  Cell In[23], line 1
    print type(list_mixed)
    ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print(...)?
```

In [25]:
```
print type(car_list)
```

```
  Cell In[25], line 1
    print type(car_list)
    ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print(...)?
```

In [27]:
```
type(car_list)
```

Out[27]:
```
list
```

In [29]:
```
print type(car_list);
```

```
  Cell In[29], line 1
    print type(car_list);
    ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print(...)?
```

In [31]:
```
print (type(list_mixed))
print (type(list_bool))
print (type(list_flot))
print (type(car_num))
print (type(car_list))
```

```
<class 'list'>
<class 'list'>
<class 'list'>
<class 'list'>
<class 'list'>
```

In [33]:
```
print (type(list_mixed[4]))
```

```
<class 'list'>
```

In [35]:
```
print (type(list_mixed[3]))
```

```
<class 'bool'>
```

In [37]:
```
print (type(list_mixed[2]))
```

```
<class 'float'>
```

In [39]:
```
print (type(list_mixed[0]))
```

```
<class 'int'>
```

In [41]:
```
print (type(list_mixed[1]))
```

```
<class 'str'>
```

In [43]:
```
print (list_mixed[4])
```

```
['ABC', 'ASAS']
```

In [45]:
```
print (list_mixed[2])
```

```
12121.222
```

In [47]:
```
print (index.list_mixed[4])
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[47], line 1
----> 1 print (index.list_mixed[4])

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

In [49]:
```
print (list_mixed.index[4])
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[49], line 1
----> 1 print (list_mixed.index[4])

TypeError: 'builtin_function_or_method' object is not subscriptable
```

In [51]:
```
list_mixed.index[4]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[51], line 1
----> 1 list_mixed.index[4]

TypeError: 'builtin_function_or_method' object is not subscriptable
```

In [53]:
```
len.list_mixed[4]
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[53], line 1
----> 1 len.list_mixed[4]

AttributeError: 'builtin_function_or_method' object has no attribute 'list_mixed'
```

In [55]:
```
len(list_mixed[4])
```

Out[55]: 2

In [57]:
```
len(car_list)
```

Out[57]: 8

In [59]:
```
car_list
```

Out[59]:
```
['Hona Accura',
 'Honda Civic',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [61]:
```
car_lits[-1]
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[61], line 1
----> 1 car_lits[-1]

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

In [63]:
```
car_lits[1]
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[63], line 1
----> 1 car_lits[1]

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

In [65]:
```
car_list[-1]
```

Out[65]:
```
'Nissan Altima'
```

In [67]:
```
car_list
```

Out[67]:
```
['Hona Accura',
 'Honda Civic',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [69]:
```
Car_list[0] = 'Honda Accura'
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[69], line 1
----> 1 Car_list[0] = 'Honda Accura'

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

In [71]:
```
Car_list[0] = 'Honda Lexis'
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[71], line 1
----> 1 Car_list[0] = 'Honda Lexis'

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

In [73]:
```
car_list[0].update() = 'Honda Lexis'
```

```
  Cell In[73], line 1
    car_list[0].update() = 'Honda Lexis'
    ^
SyntaxError: cannot assign to function call here. Maybe you meant '==' instead of
'='?
```

In [75]:
```
car_list[0].update() == 'Honda Lexis'
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[75], line 1
----> 1 car_list[0].update() == 'Honda Lexis'

AttributeError: 'str' object has no attribute 'update'
```

In [77]:
```
car_list[1] = 'Honda'
```

In [79]:
```
car_list
```

Out[79]:
```
['Hona Accura',
 'Honda',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [81]:
```
car_list[1] = 'Honda Lexis'
```

In [83]:
```
car_list
```

Out[83]:
```
['Hona Accura',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [85]:
```
car_list[0] = 'Hona City'
```

In [87]:
```
car_list
```

Out[87]:
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima']
```

In [89]:
```
car_list.append() = 'Amnasador'
```

```
  Cell In[89], line 1
    car_list.append() = 'Amnasador'
    ^
SyntaxError: cannot assign to function call here. Maybe you meant '==' instead of
'='?
```

In [91]:
```
car_list.append('Amnasador')
```

In [93]:
```
car_list
```

Out[93]:
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador']
```

In [95]:
```
car_list.append('Maruthi', 'Ford', 'Mahandra' )
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[95], line 1
----> 1 car_list.append('Maruthi', 'Ford', 'Mahandra' )

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

In [97]:
```
car_list.append('Maruthi' )
```

In [99]:
```
car_list
```

Out[99]:
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Maruthi']
```

In [101…
```
car_list.insert('Mahendra' )
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[101], line 1
----> 1 car_list.insert('Mahendra' )

TypeError: insert expected 2 arguments, got 1
```

In [103…
```
car_list.insert(9, 'Mahendra' )
```

In [105…
```
car_list
```

Out[105…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi']
```

In [107…
```
car_list.insert(len(car_list), 'Mahendra' )
```

In [109…
```
car_list
```

Out[109…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra']
```

In [111…
```
len(car_list)
```

Out[111…
```
12
```

In [113…
```
car_list.insert(len(car_list), 'Tata Indica' )
```

In [115…
```
car_list
```

Out[115…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica']
```

In [117…
```
car_list.extend( 'Tata Somo', 'Mahindra Scarpio' )
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[117], line 1
----> 1 car_list.extend( 'Tata Somo', 'Mahindra Scarpio' )

TypeError: list.extend() takes exactly one argument (2 given)
```

In [119…
```
car_list.extend( ['Tata Somo', 'Mahindra Scarpio'] )
```

In [121…
```
car_list
```

Out[121…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio']
```

In [123…
```
Car_list2 = [ 'BMW', 'lucid', 'Ravaion' ]
```

In [125…
```
car_list
```

Out[125…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio']
```

In [127…
```
Car_list2
```

Out[127…
```
['BMW', 'lucid', 'Ravaion']
```

In [129…
```
Total_cars = Car_list + Car_list2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[129], line 1
----> 1 Total_cars = Car_list + Car_list2

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

In [131…
```
Total_cars = Car_list[] + Car_list2[]
```

```
  Cell In[131], line 1
    Total_cars = Car_list[] + Car_list2[]
                          ^
SyntaxError: invalid syntax
```

In [133…
```
Total_cars += Car_list + Car_list2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[133], line 1
----> 1 Total_cars += Car_list + Car_list2

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

In [135…
```
Total_cars += Car_list + Car_list2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[135], line 1
----> 1 Total_cars += Car_list + Car_list2

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

In [137…
```
Car_list
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[137], line 1
----> 1 Car_list

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

In [139…
```
car_list
```

Out[139…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio']
```

In [141…
```
car_list2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[141], line 1
----> 1 car_list2

NameError: name 'car_list2' is not defined
```

In [143…
```
car_list2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[143], line 1
----> 1 car_list2

NameError: name 'car_list2' is not defined
```

In [145…
```
Car_list2
```

Out[145…
```
['BMW', 'lucid', 'Ravaion']
```

In [147…
```
Car_list
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[147], line 1
----> 1 Car_list

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

In [149…
```
car_list
Car_list2
```

Out[149…
```
['BMW', 'lucid', 'Ravaion']
```

In [151…
```
car_list
```

Out[151…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio']
```

In [155…
```
Totalcars = car_list + Car_list2
```

In [157…
```
Totalcars
```

Out[157…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Mahendra',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio',
 'BMW',
 'lucid',
 'Ravaion']
```

In [159…
```
Totalcars.index('Ravaion')
```

Out[159…
```
17
```

In [161…
```
Totalcars.remove('Mahendra')
```

In [163…
```
Totalcars
```

Out[163…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Maruthi',
 'Mahendra',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio',
 'BMW',
 'lucid',
 'Ravaion']
```

In [165…
```
len(Totalcars)
```

Out[165… 17

In [167…
```
Totalcars.pop('Mahendra')
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[167], line 1
----> 1 Totalcars.pop('Mahendra')

TypeError: 'str' object cannot be interpreted as an integer
```

In [169…
```
Totalcars.index('Mahendra')
```

Out[169… 10

In [171…
```
Totalcars.pop(10)
```

Out[171… 'Mahendra'

In [173…
```
Totalcars
```

Out[173…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Maruthi',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio',
 'BMW',
 'lucid',
 'Ravaion']
```

In [175…
```
Totalcars += ['Mahendra Thour', 'Mahendra Jeep']
```

In [177…
```
Totalcars
```

Out[177…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Maruthi',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio',
 'BMW',
 'lucid',
 'Ravaion',
 'Mahendra Thour',
 'Mahendra Jeep']
```

In [179…
```
Totalcars.copy()
```

Out[179…
```
['Hona City',
 'Honda Lexis',
 'Hona Odessy',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Ford Ram',
 'Nissan Altima',
 'Amnasador',
 'Maruthi',
 'Tata Indica',
 'Tata Somo',
 'Mahindra Scarpio',
 'BMW',
 'lucid',
 'Ravaion',
 'Mahendra Thour',
 'Mahendra Jeep']
```

In [181…
```
Totalcars.sort(*, key=Mahendra, reverse=False)
```

```
  Cell In[181], line 1
    Totalcars.sort(*, key=Mahendra, reverse=False)
                   ^
SyntaxError: Invalid star expression
```

In [183…
```
Totalcars.sort(*, key='Mahendra', reverse=False)
```

```
  Cell In[183], line 1
    Totalcars.sort(*, key='Mahendra', reverse=False)
                   ^
SyntaxError: Invalid star expression
```

In [185…
```
Totalcars.sort( key=Mahendra, reverse=False)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[185], line 1
----> 1 Totalcars.sort( key=Mahendra, reverse=False)

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

In [ ]:
```
Totalcars.sort(*, key=Mahendra, reverse=False)
```

In [187…
```
Totalcars.sort(reverse=False)
```

In [189…
```
Totalcars
```

Out[189…
```
['Amnasador',
 'BMW',
 'Ford Ram',
 'Hona City',
 'Hona Odessy',
 'Honda Lexis',
 'Mahendra Jeep',
 'Mahendra Thour',
 'Mahindra Scarpio',
 'Maruthi',
 'Nissan Altima',
 'Ravaion',
 'Tata Indica',
 'Tata Somo',
 'Tesla Cyber Truck',
 'Toyota Cyana',
 'Toyota Rav4',
 'lucid']
```

In [191…
```
Totalcars.sort(reverse=True)
```

In [193…
```
Totalcars
```

Out[193…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador']
```

In [195…
```
Totalcars.reverse()
```

In [197…
```
Totalcars
```

Out[197…
```
['Amnasador',
 'BMW',
 'Ford Ram',
 'Hona City',
 'Hona Odessy',
 'Honda Lexis',
 'Mahendra Jeep',
 'Mahendra Thour',
 'Mahindra Scarpio',
 'Maruthi',
 'Nissan Altima',
 'Ravaion',
 'Tata Indica',
 'Tata Somo',
 'Tesla Cyber Truck',
 'Toyota Cyana',
 'Toyota Rav4',
 'lucid']
```

In [199…
```
print (Totalcars.reverse())
```

```
None
```

In [201…
```
print(Totalcars.reverse())
```

```
None
```

In [203…
```
Totalcars.reverse()
```

In [205…
```
Totalcars
```

Out[205…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador']
```

In [207…
```
Totalcars.count()
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[207], line 1
----> 1 Totalcars.count()

TypeError: list.count() takes exactly one argument (0 given)
```

In [209…
```
Totalcars.append('BMW')
```

In [211…
```
Totalcars
```

Out[211…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [213…
```
Totalcars.count('BMW')
```

Out[213…
```
2
```

In [215…
```
total_car_set = Totalcars
```

In [217…
```
total_car_set
```

Out[217…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [219…
```
total_car_set.clear()
```

In [221…
```
total_car_set
```

Out[221…
```
[]
```

In [223…
```
del total_car_set
```

In [225…
```
total_car_set
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[225], line 1
----> 1 total_car_set

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

In [227…
```
set Totalcars_set = Totalcars
```

```
  Cell In[227], line 1
    set Totalcars_set = Totalcars
        ^
SyntaxError: invalid syntax
```

In [229…
```
set(Totalcars_set) = Totalcars
```

```
  Cell In[229], line 1
    set(Totalcars_set) = Totalcars
    ^
SyntaxError: cannot assign to function call here. Maybe you meant '==' instead of
'='?
```

In [231…
```
set Totalcars_set
```

```
  Cell In[231], line 1
    set Totalcars_set
        ^
SyntaxError: invalid syntax
```

In [233…
```
set(Totalcars_set)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[233], line 1
----> 1 set(Totalcars_set)

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

In [235…
```
Totalcars_set = set(Totalcars)
```

In [237…
```
Totalcars_set
```

Out[237… set()

In [239…
```
Totalcars
```

Out[239… []

In [241…
```
total_cars = ['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [243…
```
Totalcars
```

Out[243… []

In [245…
```
total_cars
```

Out[245…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [247…
```
totalcarset = set(total_cars)
```

In [249…
```
totalcarset
```

Out[249…
```
{'Amnasador',
 'BMW',
 'Ford Ram',
 'Hona City',
 'Hona Odessy',
 'Honda Lexis',
 'Mahendra Jeep',
 'Mahendra Thour',
 'Mahindra Scarpio',
 'Maruthi',
 'Nissan Altima',
 'Ravaion',
 'Tata Indica',
 'Tata Somo',
 'Tesla Cyber Truck',
 'Toyota Cyana',
 'Toyota Rav4',
 'lucid'}
```

In [251…
```
import copy
```

In [253…
```
new_car_list = copy.deepcopy(total_cars)
```

In [255…
```
new_car_list
```

Out[255…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [257…
```
another_car_list = total_cars
```

In [259…
```
another_car_list
```

Out[259…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [261…
```
total_cars
```

Out[261…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [263…
```
total_cars.remove('BMW')
```

In [265…
```
total_cars
```

Out[265…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'Amnasador',
 'BMW']
```

In [267…
```
another_car_list
```

Out[267…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'Amnasador',
 'BMW']
```

In [269…
```
new_car_list
```

Out[269…
```
['lucid',
 'Toyota Rav4',
 'Toyota Cyana',
 'Tesla Cyber Truck',
 'Tata Somo',
 'Tata Indica',
 'Ravaion',
 'Nissan Altima',
 'Maruthi',
 'Mahindra Scarpio',
 'Mahendra Thour',
 'Mahendra Jeep',
 'Honda Lexis',
 'Hona Odessy',
 'Hona City',
 'Ford Ram',
 'BMW',
 'Amnasador',
 'BMW']
```

In [271…
```
list_num = [ 10, 90, 20, 30, 50, 70, 40, 60, 80, 100 ]
```

In [273…
```
list_num
```

Out[273…
```
[10, 90, 20, 30, 50, 70, 40, 60, 80, 100]
```

In [275…
```
list_num.max()
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[275], line 1
----> 1 list_num.max()

AttributeError: 'list' object has no attribute 'max'
```

In [277…
```
print( max(list_num))
```
```
100
```

In [279…
```
print( min(list_num))
```
```
10
```

In [281…
```
print( sum(list_num))
```
```
550
```

In [283…
```
print( sort(list_num))
```
```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[283], line 1
----> 1 print( sort(list_num))

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

In [285…
```
list_num *= 2
```

In [287…
```
list_num
```

Out[287…
```
[10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100,
 10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100]
```

In [289…
```
list_num.append(0)
```

In [291…
```
list_num
```

Out[291…
```
[10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100,
 10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100,
 0]
```

In [293…
```
all(list_num)
```

Out[293…
```
False
```

In [295…
```
any(list_num)
```

Out[295…
```
True
```

In [297…
```
list_num.remove(0)
```

In [299…
```
list_num
```

Out[299…
```
[10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100,
 10,
 90,
 20,
 30,
 50,
 70,
 40,
 60,
 80,
 100]
```

In [301…
```
all(list_num)
```
Out[301… True

In [303…
```
any(list_num)
```
Out[303… True

SLICING

! SLICING !!

In [307…
```
list = [ 1,2,3,4,5,6,7,8]
```
In [309…
```
list[0:3]
```
Out[309… [1, 2, 3]

In [311…
```
list[:3]
```
Out[311… [1, 2, 3]

In [313…
```
list[5:]
```
Out[313… [6, 7, 8]

In [315…
```
list[0:-4]
```
Out[315… [1, 2, 3, 4]

In [317…
```
list[0:-1]
```
Out[317… [1, 2, 3, 4, 5, 6, 7]

In [319…
```
list[-2:-4]
```
Out[319… []

In [321…
```
list[-6:-4]
```
Out[321… [3, 4]

In [323…
```
list[0:5:2]
```
Out[323… [1, 3, 5]

In [325…
```
list[0:5]
```
Out[325… [1, 2, 3, 4, 5]

In [327…
```
list[0:6]
```

Out[327… [1, 2, 3, 4, 5, 6]

In [329…
```
list[0:6:2]
```

Out[329… [1, 3, 5]

In [331…
```
list[0:6]
```

Out[331… [1, 2, 3, 4, 5, 6]

In [333…
```
list[0:6:3]
```

Out[333… [1, 4]

In [335…
```
list[0:6:4]
```

Out[335… [1, 5]

In [337…
```
x = 'Work'
```

In [339…
```
print(x)
```

```
Work
```

In [341…
```
x[]
```

```
  Cell In[341], line 1
    x[]
      ^
SyntaxError: invalid syntax
```

In [343…
```
x[0]
```

Out[343… 'W'

In [345…
```
x[2]
```

Out[345… 'r'

In [347…
```
a,b,c,d,e = X
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[347], line 1
----> 1 a,b,c,d,e = X

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

In [349…
```
a,b,c,d = X
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[349], line 1
----> 1 a,b,c,d = X

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

In [351…
```
a, b, c, d = X
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[351], line 1
----> 1 a, b, c, d = X

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

In [353…
```
list.extend()
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[353], line 1
----> 1 list.extend()

TypeError: list.extend() takes exactly one argument (0 given)
```

In [355…
```
x
```

Out[355… 'Work'

In [357…
```
a, b, c, d = x
```

In [359…
```
a, b, c, d
```

Out[359… ('W', 'o', 'r', 'k')

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: