

```
In [1]: fruits=[1,"banana",2,"apple",3,"mango"]
        print(fruits);
```

```
[1, 'banana', 2, 'apple', 3, 'mango']
```

```
In [2]: print(len(fruits));
```

```
6
```

```
In [3]: print(len(fruits[3]));
```

```
5
```

```
In [4]: print(fruits[2]);
```

```
2
```

```
In [5]: fruit=[]
        fruit=fruits
        print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango']
```

```
In [6]: print(fruits[1]);
```

```
banana
```

```
In [7]: fruits[1]
```

```
Out[7]: 'banana'
```

```
In [9]: fruit.insert(4)
```

```
-----
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\3796134354.py in <module>
----> 1 fruit.insert(4)

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

```
In [10]: fruit.insert(4);
```

```
-----
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\1182973421.py in <module>
----> 1 fruit.insert(4);

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

```
In [11]: fruit.insert(6,4);
```

```
In [12]: print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4]
```

```
In [13]: fruit.append("orange");
```

```
In [14]: print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange']
```

```
In [16]: vegetables=["cali","carrot","lemon"]
        x=fruit+vegetables;
        print(x);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange', 'cali', 'carrot', 'lemon']
```

```
In [17]: list=[1,2,3,4,5]
        sum=0
        for num in list:
            sum=sum+num
            print(sum);
```

```
1
3
6
10
15
```

```
In [20]: i=0
        while i<7:
            print(i)
            i = i+1
```

```
0
1
2
3
4
5
6
```

```
In [18]: for i in range(8):
        print(i);
```

```
0
1
2
3
4
5
6
7
```

```
In [19]: fruit[1:4]
```

```
Out[19]: ['banana', 2, 'apple']
```

```
In [20]: i=0
while i<7:
    print(i)
    i = i+1
```

```
0
1
2
3
4
5
6
```

```
In [21]: i=0
while i<=7:
    print(i)
    i = i+1
```

```
0
1
2
3
4
5
6
7
```

```
In [22]: fruit.extend(vegetables)
print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange', 'cali', 'carrot', 'lemon']
```

```
In [23]: fruit.index(list)
print(fruit);
```

```
-----
ValueError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\1410823290.py in <module>
----> 1 fruit.index(list)
      2 print(fruit);

ValueError: [1, 2, 3, 4, 5] is not in list
```

```
In [24]: fruit.index("apple")
print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange', 'cali', 'carrot', 'lemon']
```

```
In [25]: fruit.index("apple");
```

```
In [26]: fruit.index(apple)
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\1852501942.py in <module>
----> 1 fruit.index(apple)

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

```
In [27]: fruit.index(3)
```

```
Out[27]: 4
```

```
In [28]: fruit.index(apple)
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\1852501942.py in <module>
----> 1 fruit.index(apple)

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

```
In [29]: fruit.index("apple")
```

```
Out[29]: 3
```

```
In [30]: fruit.remove("cali")
```

```
In [31]: print(fruit);
```

```
[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange', 'carrot', 'lemon']
```

```
In [32]: fruit.pop(9);
```

```
In [33]: print(fruit);

[1, 'banana', 2, 'apple', 3, 'mango', 4, 'orange', 'carrot']

In [34]: fruit.pop()

Out[34]: 'carrot'

In [35]: fruit.pop();
print(fruit);

[1, 'banana', 2, 'apple', 3, 'mango', 4]

In [36]: fruit.sort()

-----
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\1738998978.py in <module>
----> 1 fruit.sort()

TypeError: '<' not supported between instances of 'str' and 'int'

In [37]: list.sort();

In [38]: list.sort()

In [39]: list.sort()
print(list);

[1, 2, 3, 4, 5]

In [40]: list.sort(desc)
print(list);

-----
NameError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\2815718109.py in <module>
----> 1 list.sort(desc)
      2 print(list);

NameError: name 'desc' is not defined

In [41]: list.sort(reverse=True);

In [42]: list.sort(reverse=True)

In [43]: print(list.sort(reverse=True));

None

In [44]: list.reverse()
print(list);

[1, 2, 3, 4, 5]

In [45]: fruit.reverse()
print(fruit);

[4, 'mango', 3, 'apple', 2, 'banana', 1]

In [46]: L1=[9,8,7,6,5]
print(L1);

[9, 8, 7, 6, 5]

In [47]: L1.sort()
print(L1);

[5, 6, 7, 8, 9]

In [48]: L1.reverse()
print(L1);

[9, 8, 7, 6, 5]

In [49]: L1.remove(7)
print(L1);

[9, 8, 6, 5]

In [50]: fruit.remove("apple")
print(fruit);

[4, 'mango', 3, 2, 'banana', 1]

In [51]: set1{"a","b","c","d"}
set2{"e","f","g","h","d"}
print(set1,set2);

File "C:\Users\DGVC\AppData\Local\Temp\ipykernel_6844\2018304002.py", line 1
  set1{"a","b","c","d"}
      ^
SyntaxError: invalid syntax
```

```
set1={"a","b","c","d"}
set2={"e","f","g","h","d"}
print(set1,set2);
```

```
{'a', 'd', 'c', 'b'} {'d', 'e', 'f', 'h', 'g'}
```

```
In [53]: set2.intersection(set1)
set2
```

```
Out[53]: {'d', 'e', 'f', 'g', 'h'}
```

```
In [54]: set2.intersection_update(set1)
set2
```

```
Out[54]: {'d'}
```

```
In [55]: set2.union(set1)
```

```
Out[55]: {'a', 'b', 'c', 'd'}
```

```
In [57]: set2.difference_update(set1)
set2
```

```
Out[57]: set()
```

```
In [58]: set1.difference(set2)
set1
```

```
Out[58]: {'a', 'b', 'c', 'd'}
```

```
In [59]: set1.difference_update(set2)
set1
```

```
Out[59]: {'a', 'b', 'c', 'd'}
```

```
In [60]: print(set2);
```

```
set()
```

```
In [61]: this_type("apple",)
print(type(this_type));
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\3360479983.py in <module>
----> 1 this_type("apple",)
      2 print(type(this_type));

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

```
In [62]: this_type("apple",)
print(type(this_type))
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\2034574977.py in <module>
----> 1 this_type("apple",)
      2 print(type(this_type))

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

```
In [63]: this_tuple("apple",)
print(type(this_tuple))
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\3604757090.py in <module>
----> 1 this_tuple("apple",)
      2 print(type(this_tuple))

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

```
In [64]: python=("a","b","c")
print(python_type)
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_6844\2758108134.py in <module>
      1 python=("a","b","c")
----> 2 print(python_type)

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

```
In [65]: python_tuple=("a","b","c")
print(python_tuple)
```

```
('a', 'b', 'c')
```

```
In [66]: python_tuple=("apple",)
print(type(python_tuple))
```

```
<class 'tuple'>
```

```
In [67]: python_tuple=("apple")
print(type(python_tuple))
```

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

```
In [68]: python_tuple=("apple")  
         print(type(python_tuple))
```

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

```
In [ ]: python_tuple=("a","b","c")  
         print(python_tuple)
```

```
In [ ]:
```