**List Operations**

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**List Operations**

1. **Defining a List**

>>> fruit = ['apples','bananas','pears']

>>> print(fruit)

['apples', 'bananas', 'pears']

1. **Adding to the End of a List**

>>> fruit.append('grape')

>>> print(fruit)

['apples', 'bananas', 'pears', 'grape']

1. **Printing Specific elements/items of a list**

>>> print(fruit[2])

pears

>>> print(fruit[0])

apples

>>> print(fruit[-1])

grape

>>> print(fruit[0].title())

Apples

>>> message = "My favourite fruit is "+

SyntaxError: invalid syntax

>>> message = "My favourite fruit is " +fruit[0]

SyntaxError: unexpected indent

>>> message = "L " +fruit[0]

>>> print(message)

L apples

1. **Inserting data in a list at a specific place – remember Python is a zero-based language**

>>> fruit.insert(0,"mango")

>>> print(fruit)

['mango', 'apples', 'bananas', 'pears', 'grape']

>>>

1. **Deleting items from a List**

>>> del fruit[0]

>>> print(fruit)

['apples', 'bananas', 'pears', 'grape']

>>>

1. **Popping Items from a List so that it can be used**

>>> one = fruit.pop()

>>> print(fruit)

['apples', 'bananas', 'pears']

>>>

>>>

>>>

>>> fruit.remove('apples')

>>> print(fruit)

['bananas', 'pears']

1. **Sorting Items in a List**

>>> fruit.sort()

>>> print(fruit)

['bananas', 'pears']

1. **Finding the Number of Items in a List**

>>> len(fruit)

2

1. **Reversing the Items in a List**

>>> fruit.reverse()

1. **Trying to locate an item that does not exist**

>>> print(fruit[4])

Traceback (most recent call last):

File "<pyshell#33>", line 1, in <module>

print(fruit[4])

IndexError: list index out of range

>>>

1. **Printing individual elements in a list**

>>> food = ['bread','egg','banana']

>>> for foo in food:

print(foo)

bread

egg

banana

1. **Generating a sequence of consecutive numbers using a FOR loop**

>>> for value in range(1,6):

print(value)

1

2

3

4

5

1. **Generating a List of numbers using a FOR loop**

>>> squares = []

>>> for value in range(1,5):

square = value \*2

squares.append(square)

>>> print(squares)

[2, 4, 6, 8]

1. ***Finding the Minimum number in a list using the min method***

>>> digits = [1,2,3,4]

>>> min(digits)

1

1. ***Finding the Minimum number in a list using the max method***

>>> max(digits)

4

1. ***Finding the Minimum number in a list using the sum method***

>>> sum(digits)

10

1. **Slicing a List**

>>> players = ['martin','anna','jon']

>>> print(players[0:1])

['martin']

>>>

>>> print(players[:2])

['martin', 'anna']

>>> print(players[:-1])

['martin', 'anna']

>>> print(players[:-2])

['martin']