**Python List Cheat Sheet**

**\*\*\*EASY\*\*\***

# Display length of list  
nums = [15, 10, 20, 14, 3, 17, 14]  
print(len(nums)) # 7  
  
# Display list  
nums = [15, 10, 20, 14, 3, 17, 14]  
print(nums) # [15, 10, 20, 14, 3, 17, 14]  
  
# Display every element (1st Way) 🡨(More formal & correct)  
nums = [15, 10, 20, 14, 3, 17, 14]  
**for** i **in** range(len(nums)):  
 print(nums[i]) # 15 10 20 14 3 17 14  
  
# Display every element (2nd Way)  
nums = [15, 10, 20, 14, 3, 17, 14]  
**for** i **in** nums:  
 print(i) # 15 10 20 14 3 17 14  
  
# Display 3rd element  
nums = [15, 10, 20, 14, 3, 17, 14]  
print(nums[2]) # 20  
  
# Slicing list  
# EX: Output elements at index 2 - 5  
nums = [15, 10, 20, 14, 3, 17, 14]  
print(nums[2:6]) # [20, 14, 3, 17]  
  
# Reverse list  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.reverse()  
print(nums) # [14, 17, 3, 14, 20, 10, 15]  
  
# Sort list in ascending order  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.sort()  
print(nums) # [3, 10, 14, 14, 15, 17, 20]  
  
# Sort list in descending order  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.sort(reverse=**True**)  
print(nums) # [20, 17, 15, 14, 14, 10, 3]  
  
# Adding element to end of list  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.append(255)  
print(nums) # [15, 10, 20, 14, 3, 17, 14, 255]  
  
# Adding element to beginning of list  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.insert(0, 255)  
print(nums) # [255, 15, 10, 20, 14, 3, 17, 14]  
  
# Adding element to middle of list  
# Ex Add element between 20 and 14  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.insert(3, 255)  
print(nums) # [15, 10, 20, 255, 14, 3, 17, 14]  
  
# Deleting element at end of list  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.pop()  
print(nums) # [15, 10, 20, 14, 3, 17]  
  
# Deleting element at begging of list  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.pop(0)  
print(nums) # [10, 20, 14, 3, 17, 14]  
  
# Deleting element in middle of list  
# Ex Delete element between 10 and 14  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.pop(2)  
print(nums) # [15, 10, 14, 3, 17, 14]  
  
# Remove first occurrence of a  
# particular element in list. EX 14  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums.remove(14)  
print(nums) # [15, 10, 20, 3, 17, 14]  
  
# Count how many 14s in list  
nums = [15, 10, 20, 14, 3, 17, 14]  
c = nums.count(14)  
print(c) # 2  
  
# Copy a list  
nums = [15, 10, 20, 14, 3, 17, 14]  
new = nums.copy()  
print(new) # [15, 10, 20, 14, 3, 17, 14]  
  
# Join two lists  
nums = [15, 10, 20, 14, 3, 17, 14]  
nums2 = [364, 13, 839, -7.8]  
new = nums + nums2  
print(new) # [15, 10, 20, 14, 3, 17, 14, 364, 13, 839, -7.8]  
  
# Multiplying lists  
nums = [3, 5, 7] \* 3  
print(nums) # [3, 5, 7, 3, 5, 7, 3, 5, 7]

**\*\*\*MEDIUM\*\***  
# Check if 20 is in the list  
nums = 20 **in** [15, 10, 20, 14, 3, 17, 14]  
print(nums) # True  
  
# Check if 20 or 255 is in the list  
nums = (20 **or** 255) **in** [15, 10, 20, 14, 3, 17, 14]  
print(nums) # True  
  
# Check if 20 and 255 is in the list  
nums = (20 **and** 255) **in** [15, 10, 20, 14, 3, 17, 14]  
print(nums) # False  
  
# Check if 14 and 15 and 17 is not in the list  
nums = **not** (14 **and** 15 **and** 17) **in** [15, 10, 20, 14, 3, 17, 14]  
print(nums) # False

**\*\*\*HARD\*\*\***  
# Populate list with six 25s  
nums = [25 **for** i **in** range(6)]  
print(nums) # [25, 25, 25, 25, 25, 25]  
  
# Populate list from 1 - 10  
nums = [i+1 **for** i **in** range(10)]  
print(nums) # [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]  
  
# Populate list with all characters a - z  
nums = [chr(i) **for** i **in** range(ord(**'a'**), ord(**'z'**)+1)]  
print(nums) # ['a', 'b', 'c' .... 'y', 'z']  
  
# Accessing elements in a list containing lists  
# EX accessing 8  
nums = [[3, 4, 5], [7, 10, 8], [2, 4], [0, -9, 2, 53]]  
print(nums[1][2]) # 8  
  
# Deleting elements in a list containing lists  
# EX delete -9  
nums = [[3, 4, 5], [7, 10, 8], [2, 4], [0, -9, 2, 53]]  
nums[3].pop(1)  
print(nums) # [[3, 4, 5], [7, 10, 8], [2, 4], [0, 2, 53]]

# Display elements in a sub list  
# using more than 1 iterator  
nums = [[3,2,5],[8,8,6],[3,43,56]] # 3 2 5 8 8 6 3 34 56  
**for** (a,b,c) **in** nums:  
 print(a,b,c)  
  
# Display elements in multiple sub list  
# using more than 1 iterator  
nums = [[3,2,[5,6]],[8,8,[6,4]],[3,43,[56,4]]] # 3 2 5 6 8 8 6 4 3 43 56 4  
**for** (a,b,(c,d)) **in** nums:  
 print(a,b,c,d)

# Output element in a list containing lists within lists  
nums = [[8,[3, 2]],[3, 2,[4, 1]]]  
print(nums) # [[8, [3, 2]], [3, 2, [4, 1]]]  
print(nums[0]) # [8, [3, 2]]  
print(nums[0][0]) # 8  
print(nums[0][1]) # [3, 2]  
print(nums[0][1][0]) # 3  
print(nums[1]) # [3, 2, [4, 1]]  
print(nums[1][1]) # 2  
print(nums[1][2][1]) # 1

**\*\*\*\*\*\*\*\*INSANELY HARD\*\*\*\*\*\*\*\*\***

# List of a 1000 randomly generated 4 letter words  
**import** random  
fourLetterWords = [**''**.join([chr(random.randint(ord(**'a'**), ord(**'z'**))) **for** i **in** range(4)]).capitalize() **for** i **in** range(1000)]  
print(fourLetterWords) # ['Elpy', 'Jenx', 'Xzkz', 'Azlf', 'Rkyi', ........ Ztai', 'Vxps', 'Lqck']