Lists

Variables can store multiple values in the form of a list. The values are seperated by commas and wrapped in square brackets.

Lists have methods, built in functions (see lab 5), that can be called using dot notation. For example, to add a new element other than the end of a list, we can use the ***append*** method.

Part 1: List Methods

Python Code	Shell Output
temps = [56,62,67,64,56]	nothing
len(temps)	5
print(temps[5])	index error
temps.append(53)	nothing
dew.append(41)	name error
dew = []	nothing
print(dew[0])	index error
dew.append(41)	nothing
print(dew)	[41]
print(dew[0])	41
temps.count(56)	1
temps.remove(56)	nothing
print(temps)	[62, 67, 64, 5(
type(temps)	<class 'list'>

1. What happens when you call the ***append*** method?
it puts the number into the list.

2. What must be defined prior to using a method like ***append***?
the list your trying to use.

3. Explain why two lines caused and ***IndexError***?
those numbers dont have a spot in the list.

4. What happens when you call the ***remove*** method?
removes the first occurence something in the list.

7. Describe the syntax similarities between using a list method like ***append*** and a Python built-in function like ***print***.
they both need parenthasies around the argument.

8. Complete the function below (two lines are missing). It should prompt the user to as for numbers and build a list one number at a time until the user enters the number 0.

missing line 1
numbers = []

missing line 2
numbers.append(x)

In [1]:
```
def input_numbers():
    #Add missing line here

    x = int(input("Enter the first number: "))
    while x != 0:
        #Add missing line here

        x = int(input("Enter the next number: "))
    return numbers

vals = input_numbers()
print(vals)
```

Part 2: Lists Indexes

In [29]:
```
import random
# a list of temperatures throughout the day
temps = [38,39,42,46,47,49,54,55,56,62,63,67,69,73,74,75,72,66,64,59,5

# a list of times associated with the temperatures
times = ["5:00 am","6:00 am","7:00 am","8:00 am","9:00 am","10:00 am",
         "1:00 pm","2:00 pm","3:00 pm","4:00 pm","5:00 pm","6:00 pm","
         "10:00 pm","11:00 pm","12:00 pm","1:00am","2:00am","3:00am","
```

9. Write a function, ***avg_temp(temperatures)***, to find and return the average temperature.

In [ ]:
```
def avg_temp(temperatures):
    #add code here
```

10. What is the average temperature rounded to two decimals?

IM not sure how much i can do cause i cant edit in those boxes??? I also cant see all the numbers.

It looks like the numbers go much further pass the box but i cant see all of them.

11. Write a function, ***max_temp(temperatures)***, to find and return the maximum temperature and its index.

In [ ]:
```
def max_temp(temperatures):
    #add code here

high_temp, high_index = max_temp(temps)
```

12. What time does the maximum temperature occur? Write one line of code to answer this one.

In [ ]:
```

```

Again like last question. IM not sure how much i can do cause i cant edit those boxes??? I also cant see all the numbers.

13. Write a function, ***min_temp(temperatures)***, to find and return the minimum temperature and its index.

In [ ]:
```
def min_temp(temperatures):
    #add code here

low_temp, low_index = min_temp(temps)
```

14. What time does the minimum temperature occur? Write one line of code to answer this one.

I cant really answer everything here. Im sorry but i did go over the thing my self so i have a small bit of understanding.

In [ ]:
```

```