In Python Lists performs the function of Arrays, see:
https://www.tutorialspoint.com/python/python_lists.htm
Example of declaring a list:

```
# declaring lists, lists can be strings or numbers



al=["a","b","c","d"]

print al

n=2
print "accessing one element",al[n]


aseries=[1,2,3,4,5,7]


print aseries

m=0
print "accessing one element",aseries[m]
```

Computer Experiment 1
Run the above program a few times, and change the values of n and m. Also uses large values of n and m, and note the error you get. You should now know how to access an element.

Changing the value of arrays
The value of arrays can be changed,

```
# changing the value of list elements

aseries=[1,2,3,4,5,7]

print aseries

m=2
aseries[m]=100

print aseries
```

Computer Experiment 2
Run the above program a few times, and change the values of m. You should now know how to change the value of arrays.

Changing the size of a list; this can be useful in many situations, see

```
letters = ["x", "y", "z", "a", "b"]
print(letters)

# Resize list to two elements at the start.
letters = letters[:2]
print(letters)


# we have a list and then create a smaller list

cities=["stockholm","paris","London","Goteborg","Cambridge","Amsterdam"]


print cities

start=1
finish=4

sh=cities[start:finish]
print sh
```

Computer Experiment 3
Change the value 2, start, and finish, and run the program a few times.

Increasing the size of a list we use the append method:

```
# Increasing the size of a list

numbers = [1, 1, 1, 1]

print numbers

# we use a list method
n=0
numbers.append(n)
print numbers
```

Computer experiment 3
Run the program a few times with different values of n. Also repeat the statement numbers.append(n) a few times.

Exercise 1
Create a list containing your seven favourite kinds of food. Create a new list that consist of 3 consecutive food items.

Exercise 2
Create a list that contains the first 8 terms of an arithmetic series. Then increase the list to include the next 4 terms of the arithmetic series. You don’t need to use a loop.

Exercise 3
Create a list that contains the first 3 terms of an arithmetic series.Then increase the list to include the next 4 terms of the arithmetic series. You don’t need to use a loop.