# Worksheet 5b Using lists Answers

1. DO NOT RUN THIS PROGRAM YET!  
   Predict the output you would see if you were to run this program.

montyPython = ["John","Michael","Terry","Eric"]  
montyPython[4] = "Graham"  
print(montyPython)

Prediction:

Error (there is no [montyPython[4])

Now type up the program and test if you were correct.

1. Alter the program so that it adds Graham to the list correctly

montyPython = ["John","Michael","Terry","Eric"]  
montyPython.append("Graham")  
print(montyPython)

1. Alter the program so that it prints out all 5 names, but one at a time. You should use a FOR loop to do this!

montyPython = ["John","Michael","Terry","Eric"]  
montyPython.append("Graham")  
for loop in range(5):  
 print(montyPython[loop])

1. The following code will create an empty list of 4 names, then ask the user for a name to place in the list. The last line is just there so we can see what the list looks like at the end.

friends = [None] \* 4  
for loop in range(4):  
 name = input("Enter the name of a friend: ")  
 friends[loop] = name  
print(friends)

Use a loop so that the program will ask the user for more names to complete the list. The last line should still print the complete list out.

1. Write a program to store data about DVDs that are for sale. It should start by asking the user to enter 5 film titles using a loop. The program should then print out the list of film titles so the user can check it is right.

dvds = [None] \* 5  
for loop in range(5):  
 dvds[loop] = input(“Enter a film name: ”)  
print(dvds)

1. Add to the previous program so that, once finished, the user should be asked to enter the name of a film that they want to see. The program should then check whether that film is in the list or not.

dvds = [None] \* 5  
for loop in range(5):  
 dvds[loop] = input(“Enter a film name: ”)  
name = input(“Choose a film: ”)  
if name in dvds:  
 print(“It’s there!”)

1. Add to the previous program so that there is a second list, this time with the Director for each film. The finished program should ask the user for the name of the first film (which will be stored in the first list) and the name of the director for that film (which will be stored in the second list).  
     
   The user should then be able to choose a number and the program will print out the name of that film and the director for that film.

dvds = [None] \* 5  
directors = [None] \* 5  
for loop in range(5):  
 dvds[loop] = input(“Enter a film name: ")  
 directors[loop] = input(“Enter the director’s name: ”)  
num = int(input(“Choose a film number: ”)  
print(dvds[num],”was directed by”,directors[num])

1. Extend the previous program even further. This time the user should be able to enter the name of a film. If the film is present then the program should find its position (index) and use that information to print out the director of that film.

dvds = [None] \* 5  
directors = [None] \* 5  
for loop in range(5):  
 dvds[loop] = input("Enter a film name: ")  
 directors[loop] = input("Enter the director’s name: ")  
name = input("Choose a film: ")  
if name in dvds:  
 num = dvds.index(name)  
 print(dvds[num], "was directed by",directors[num])  
else:  
 print(“Sorry, film not found”)

**Extension**

Many potential solutions, provide feedback based on success of student solution.

***(See program L5 WS5b Extension.py in Sample programs folder)***