

## Array Assignments.

1. Write the code for the following problem. Assign 10 last names to an array. Write a function to display the names. Write another function to display the names in reverse order.

| Input         | Process   | Output                                    |
|---------------|---|---|
| 10 last names | Store the last names in an array                              | Display the names in their original order |
|               | Write a function to display the names in their original order | Display names in reverse order            |
|               | Write another function to display the names in reverse order  |   |

2. Write the code for the following problem. Add another array to problem 1 above. This array should contain exam score for the respective students. That is, the first name goes with the first score etc. These are called parallel arrays. Also modify the display functions to include exam score array in addition to the last name array.

| Input                                 | Process  | Output                                    |
|---------------------------------------|--|---|
| An array of student names             | Initialize parallel arrays with student names and exam scores  | Display the student names and exam scores |
| An array of corresponding exam scores | Create a function to display the student names and exam scores |   |

3. Write the code for the following problem. The data to load is lastname and score. You can do this from a file. Add a function to problem to display the last name and highest, last name and lowest. Hint: for highest initialize a variable to 0 (high\_var). If the array value is higher than the high\_var then set high\_var to the array value and set high\_index to the position of the array. Proceed through the array until you get to the end. Do the same for finding the lowest using low\_var set to 999 (higher than the highest value).

| Input                                 | Process   | Output                         |
|---------------------------------------|---|--------------------------------|
| A file containing last name and score | Load the data from the file                                       | Last name and highest score    |
|                                       | Find the highest and lowest scores                                | Last name and the lowest score |
|                                       | Find the last names associated with the highest and lowest scores |                                |

4. Load list of 10 Player Names and Batting Averages from a file into arrays. (Create your own file with two items: player last name and batting average, i.e. 0.267, 0.300 etc). Write a function to display the arrays. Then use a while loop to repeatedly ask the user for a last name. Write another function to search for the last name in the array and then display last name and batting average when found.

| Input  | Process   | Output                                    |
|--|---|---|
| 10 player names and batting averages from a file | Create a function to display the arrays                     | Display the last name and batting average |
|  | Create a function to search for the last name in the array  |   |
|  | Use a while loop to repeatedly ask the user for a last name |   |

5. Modify 4 above to display a message, "Name not found" when the name is not in the list.

| Input  | Process   | Output   |
|--|---|--|
| Load the list of player names and batting averages from a file | Create a function to display the arrays                             | Display the last name and batting average when found, or display "Name not found" when the name is not on the list |
|  | Create a function to search for the last name in the array          |  |
|  | Use a while loop to repeatedly ask the user for a last name         |  |
|  | Display a message "Name not found" when the name is not in the list |  |