

Complete the following functions with the given declarations. All user input and output **must** occur in your `main` function. You are permitted to create other functions if you feel they would help you complete the task. Call your C++ file `PointerFunctions`. This is to be submitted to Classroom by the date on the assignment. You are only completing one C++ file for this mini-project.

In your `main` function, display a menu to ask the user for their desired task. Their options are listed below. Once the user chooses a task, ask them for the input required for the function (and only for that function). When the process is complete, ask the user if they want to do it again.

```
void swap(int* a, int* b)
```

This function swaps two integers using pointers.

```
void letterCount(string s, int* numVowels, int* numConsonants)
```

This function counts the number of both vowels and consonants in a given string. The input string will contain no spaces and only capital letters. You **MUST** use a character pointer in this function instead of using string or array notation.

```
void arrayInfo(int* arrPtr, int length)
```

This function accepts a pointer that refers to the first element of an array of `length` elements. This function will display each element and its memory location. The information for each element must be on a new line, with the element and memory location separated by a single space. The output for this function is in the function itself.

This project will be graded on:

1. Documentation (4 points): Your code must be fully commented and employ standard C++-style conventions.
2. User-Friendliness (4 points): All interactions with the user must be clear and unambiguous.
3. Functions (12 points): Each function has the proper declaration and works as expected.

TOTAL: 20 points