SAIL: Assignment 6

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Reading Assignment: C++ Primer, 5th edition

- Chapter 6 – Functions

True or False:

1. **0.5 pt** – In C++, it is possible to use the same name for several different functions.

2. **0.5 pt** – C++ supports what is commonly known as separate compilation, which allows a program to be split into several files with each file being compiled independently.

3. **0.5 pt** – A function parameter is always bound to its corresponding argument.

4. **0.5 pt** – Arrays can be passed by value to a function.

5. **0.5 pt** – When a programmer uses command-line arguments in `argv`, the optional arguments begin in `argv[0]`.

6. **0.5 pt** – Under the new standard, functions can return a braced list of values.

Short Questions:

1. **1 pt** – Explain the meaning of the expression: overloaded functions.

2. **1 pt** – Describe the behavior and purpose of an `inline` function.

3. **1 pt** – How can one create a local variable whose lifetime continues across calls to a function?

4. **1 pt** – Explain why one should never `return` a reference or pointer to a local object.

Programming Challenge:

1. Write a `main` function that takes two command-line arguments, concatenates the supplied arguments, and then prints the resulting `string`.

2. Using pointers, write a function to swap the value of two `int` variables. Test the function by calling it and printing the swapped values.

3. Rewrite this program to use references instead of pointers to swap the value of two `int` variables.

4. Implement your application in C++.

5. Using Eclipse and SVN, commit your code as a project in a directory labeled `Cpp` and under project name `Code6`.