

CS 161 Recitation

Worksheet: Week 4

1. Explain these terms:
Decomposition, parameters, function prototype
2. Discuss the three types of errors and give an example of each. Are there any other types of errors?
3. Assume we have the following code below, using a library for which we cannot see the source code. We are expecting the value "4", but our code is printing "6", how could we go about finding where the error occurred?

```
#include <fakemathlib>
...
int num = 2;
num = add_one(num);
num = mult_two(num);
num = divide_by_three(num);
num += 2;
cout << num << endl;
```

//Assume this compiles and prints a 6

4. We have begun to use c++ strings, what is different about strings from other data types we have seen like int, float, char?
5. Fill in the missing lines of code to create a c++ string object called "str", and give the string a single word of input from the user:

```
#include <iostream>

_____
using namespace std;
int main(){

    _____

    cout << "Enter a word: ";

    _____

}
```

6. Look at the code below, then design a function called **get_last_name()** to get the last name of a person whose first name you already have. Remember, repeating code is a good indication to make a function and substituting the repeating code with a function call.
- Is this function a void function or does it need to return a value?
 - Does this function get any arguments/have any parameters?
 - What are the statements inside the function?
 - What does the function call look like?

```
int main() {
    string fName1 = "John", fName2 = "Kate", fName3 = "Jackson";
    string lName1, lName2, lName3;

    cout << "Hello " << fName1 << ", what is your last name?: ";
    cin >> lName1;
    cout << "Hello " << fName2 << ", what is your last name?: ";
    cin >> lName2;
    cout << "Hello " << fName3 << ", what is your last name?: ";
    cin >> lName3;

    return 0;
}
```