Lab 2

Comp 11 - Summer Session — Manipulating Data

2.1 Description

In this lab we are going to write several statements to perform manipulate the primitive data types in C++.

Our objectives are the following:

- Continue becoming familiar with the terminal
- Become comfortable with the primitive data types

2.2 Files

You will be creating the files from scratch for this lab. It is recommended to create a file called data.cpp and README.

2.3 Refresher

Remember the clang++ compile command:

```bash
clang++ yourCppFile.cpp -o yourProgramName
./yourProgramName
```
2.4 Task

Analyze the code listing below. The code listing has several (5) tasks for you to complete. Read through each of the tasks.

```cpp
#include <iostream>
#include <string>

int main() {
    // (1)
    // Create some initial values for
    // each of the variables. Be sure to
    // give each variable a unique name.
    // Try using the +, -, *, / operators
    // with each variable type (where valid)
    // to form some interesting equations.
    int ???
    long ???
    bool ???
    float ???
    double ???
    char ???

    // (2)
    // Output each of the variables above
    // std::cout << what_you_named_int
    // std::cout << what_you_named_long
    // etc.

    // (3)
    // Next create two strings
    // Call them: first and last
    // e.g. std::string first = "your_name";

    // (4)
    // Output each string

    // (5)
    // Try creating a third std::string
    // Now add first and last, and then
    // output the string third

    return 0;
}
```

Listing 2.1: template

2.5 Submission

```bash
provide comp11 lab2 data.cpp README
```

Listing 2.2: Submit Assignment
2.6 Going Further

Did you enjoy this lab? Want to try out some additional commands to go further?
Try looking up some other data types and outputting there values.
Do you think it is possible to store too much information in a variable?
Google the ideas of overflow and underflow. Experiment in C++!