**CSC 1101 – Problem Solving and Programming Laboratory**

**Lab 2 – rory lange**

**25 points – Due January 25, 11pm**

**a)** Save this document with your name and the lab assignment number somewhere in the file name.

**b)** Type/paste your answers into the document.

**c)** Submit the following documents to the Canvas assignment link where you downloaded this document:

✓ This document.

✓ Your .cpp files renamed to .txt.

Submit the documents separately, not as one .zip file.

You will write two programs in this lab. You may use one Visual Studio / Xcode project and switch among your C++ .cpp files, or create one Visual Studio / Xcode project for each program.

**1) [12 points]** You've been hired by *Sugar Sellers* to complete a C++ console application that displays lyrics from the song *A Spoonful Of Sugar* from

Mary Poppins. Start with file **Lab02-01.cpp**. Complete the header comment. Write **cout** statements to display the lyrics as shown below. Use one cout per line as shown in line 28. At the end of each line, use keyword **endl** to properly space the lines.

In every job that must be done, there is an element of fun

You find the fun and snap, the job's a game

And every task you undertake becomes a piece of cake

A lark, a spree, it's very clear to see

That a spoonful of sugar helps the medicine go down

The medicine go down, the medicine go down

Just a spoonful of sugar helps the medicine go down

In a most delightful way

**//==========================================================**

**//**

**// Title:      Lab 02**

**// Course:     CSC 1101**

**// Lab Number: 2**

**// Author:     Rory lange**

**// Date:       1/21/21**

**// Description:**

**//   writing the lyrics to mary poppins song for sugar**

**// sellers**

**//**

**//==========================================================**

**#include <cstdlib> // For several general-purpose functions**

**#include <fstream> // For file handling**

**#include <iomanip> // For formatted output**

**#include <iostream> // For cin, cout, and system**

**#include <string> // For string data type**

**using namespace std; // So "std::cout" may be abbreviated to "cout"**

**int main()**

**{**

**// Show application header**

**cout << "Welcome to Sugar Sellers" << endl;**

**cout << "------------------------" << endl << endl;**

**// Show lyrics**

**cout << "In every job that must be done, there is an element of fun" << endl;**

**cout << "You find the fun and snap, the job's a game" << endl;**

**cout << "And every task you undertake becomes a piece of cake" << endl;**

**cout << "A lark, a spree, it's very clear to see" << endl;**

**cout << "" << endl;**

**cout << "That a spoonful of sugar helps the medicine go down" << endl;**

**cout << "Th medicine go down, the medicine go down" << endl;**

**cout << "Just a spoonful of sugar helps the medicine go down" << endl;**

**cout << "In a most delightful way" << endl;**

**// Show application close**

**cout << "\nEnd of Sugar Sellers" << endl << endl;**

**}**

**If possible, format your code like this:**

**Font “Courier New”**

**Font size “9”**

**Bold**

**PS C:\Users\rorys\OneDrive - Wayne State University\CSC1101\labs\Lab 02> ./Lab02-01.exe**

**Welcome to Sugar Sellers**

**------------------------**

**In every job that must be done, there is an element of fun**

**You find the fun and snap, the job's a game**

**And everytask you undertake becomes a piece of cake**

**A lark, a spree, it's very clear to see**

**That a spoonful of sugar helps the medicine go down**

**Th medicine go down, the medicine go down**

**Just a spoonful of sugar helps the medicine go down**

**In a most delightful way**

**End of Sugar Sellers**

**2) [13 points]** You've been hired by *Unicode Unicorns* to complete a C++ console application that displays UNICODE codes and their descriptions. Start with file **Lab02-02. cpp** and make the following edits:

1) Complete the header comment.

2) Go to UNICODE charts at [unicode-table.com/en/](http://unicode-table.com/en/), pick five symbols, and enter their UNICODE numbers and names.

3) Add an application header using a comment and cout statements.

4) Add spaces between the double quotes to align the names under the Description column.

5) Add an application close using a comment and a cout statement.

**//==========================================================**

**//**

**// Title:      lab 02 02**

**// Course:     CSC 1101**

**// Lab Number: 02 02**

**// Author:     rory lange**

**// Date:       1/21/21**

**// Description:**

**//   <brief description of application including its inputs,**

**// processing, and outputs>**

**//**

**//==========================================================**

**#include <cstdlib> // For several general-purpose functions**

**#include <fstream> // For file handling**

**#include <iomanip> // For formatted output**

**#include <iostream> // For cin, cout, and system**

**#include <string> // For string data type**

**using namespace std; // So "std::cout" may be abbreviated to "cout"**

**int main()**

**{**

**// Declare variables**

**string u1 = "U+00B0";**

**string u1desc = "Degree sign";**

**// your codes and descriptions here ...**

**string u2 = "U+0052";**

**string u2desc = "R";**

**string u3 = "U+0053";**

**string u3desc = "S";**

**string u4 = "U+004C";**

**string u4desc = "L";**

**string u5 = "U+00B5";**

**string u5desc = "micro sign";**

**string u6 = "U+0152";**

**string u6desc = "Latin Capital Ligature Oe";**

**// Show application header**

**// your code here ...**

**// Prompt for and get hexadecimal number**

**cout << "Unicode   Description" << endl;**

**// your spacing here ...**

**cout << u1 << "    " << u1desc << endl;**

**cout << u2 << "    " << u2desc << endl;**

**cout << u3 << "    " << u3desc << endl;**

**cout << u4 << "    " << u4desc << endl;**

**cout << u5 << "    " << u5desc << endl;**

**cout << u6 << "    " << u6desc << endl;**

**// Show application close**

**// your code here ...**

**}**

**If possible, format your code like this:**

**Font “Courier New”**

**Font size “9”**

**Bold**

**PS C:\Users\rorys\OneDrive - Wayne State University\CSC1101\labs\Lab 02> ./Lab02-02.exe**

**Unicode Description**

**U+00B0 Degree sign**

**U+0052 R**

**U+0053 S**

**U+004C L**

**U+00B5 micro sign**

**U+0152 Latin Capital Ligature Oe**

**\* Copying-and-pasting C++ code to a Word document**

**macOS**

1) From within the C++ program, press **command-A** and press **command-C**.

2) From within the Word document, press **command-V**.

**Windows**

1) From within the C++ program, press **CTRL-A** and press **CTRL-C**.

2) From within the Word document, press **CTRL-V**.

**\*\* Copying-and-pasting C++ console application output to a Word document**

**macOS**

1) From the C++ console, press **shift-command-4-space**.

2) From within the Word document, **command-V**.

**Windows**

1) From the C++ console, press **ALT-PrintScreen**.

2) From within the Word document, press **CTRL-V**.