**Take Home Program #3 – Due on or before March 5, 2019 –**

**Objectives:** Apply nested if, relational and logical operators

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| --- |
| **Important instructions:**   * *All programs must include comments at the top of your program: your name,* the class name (CSIT 575)*, program name and* ***the program description (purpose of the program).*** * *Copy and paste your* ***program code*** *and* ***output*** *in Part B of each program. Note: Use snipping tool to snip the output.* * *Once it is done, save and submit this word file via Canvas.* |

1. **colormixer.cpp**

The color red, blue, and yellow are known are the primary colors. When you mix two primary colors, you get a secondary color, as shown here:

When you mix red and blue, you get purple.

When you mix red and yellow, you get orange.

When you mix blue and yellow, you get green.

Write a program that prompts the user to enter the names of two primary colors to mix. If the user enters anything other than “red”, “blue”, or “yellow,” the program should display an error message. Otherwise, the program should display the name of the secondary color that results.

**Sample run 1**

When you enter two primary colors, I will tell you

what color they make when they are mixed together?

Enter red, blue, or yellow: blue

Now enter red or yellow: yellow

Blue and yellow make green.

**Sample run 2**

When you enter two primary colors, I will tell you

what color they make when they are mixed together?

Enter red, blue, or yellow: red

Now enter blue or yellow: pink

You did not enter a requested color.

**Part A: Pseudocode**

Input or given data: red, blue or yellow

Processing: Choose either red, blue, or yellow

Yellow + Blue = Green

Red + Blue = Purple

Yellow + Red = Orange

Output: Yellow and Blue make Green

Yellow and Red make Orange

Blue and Red make Purple

**Part B: Copy and paste your program (source) code and the outputs after this line.**

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colormixer.cpp

The purpose of this program is to have the user input either red, blue, or yellow and then have

them enter a second color based on what they originally picked\*/

#include <iostream>

#include <string>

using namespace std;

int main()

{

string color1,

color2;

cout << "When you enter two primary colors, I will tell you \nwhat color they make when they are mixed together?" << endl;

//Input

cout << "\nEnter red, blue, or yellow: ";

cin >> color1;

if (color1 != "red" && color1 != "blue" && color1 != "yellow")

{

cout << "\nYou did not enter a requested color." << endl; //Output

}

//Proccessing

else if (color1 == "red")

{

//Input

cout << "Now enter blue or yellow: ";

cin >> color2;

if (color2 == "blue")

cout << "\nRed and blue make purple." << endl; //Output

if (color2 == "yellow")

cout << "\nRed and yellow make orange." << endl; //Ouput

else if (color2 != "blue" && "yellow")

cout << "\nYou did not enter a requested color." << endl;

}

//Proccessing

else if (color1 == "blue")

{

//Input

cout << "Now enter red or yellow: ";

cin >> color2;

if (color2 == "red")

cout << "\nBlue and red make purple." << endl; //Output

if (color2 == "yellow")

cout << "\nBlue and yellow make green." << endl; //Output

else if (color2 != "red" && "yellow")

cout << "\nYou did not enter a requested color." << endl;

}

//Proccessing

else if (color1 == "yellow")

{

//Input

cout << "Now enter red or blue: ";

cin >> color2;

if (color2 == "red")

cout << "\nYellow and red make orange." << endl; //Output

if (color2 == "blue")

cout << "\nYellow and blue make green." << endl; //Output

else if (color2 != "red" && "blue")

cout << "\nYou did not enter a requested color." << endl;

}

system("pause");

return 0;

}

**Sample run 1:**

When you enter two primary colors, I will tell you

what color they make when they are mixed together?

Enter red, blue, or yellow: blue

Now enter red or yellow: red

Blue and red make purple.

Press any key to continue . . .

**Sample run 2:**

When you enter two primary colors, I will tell you

what color they make when they are mixed together?

Enter red, blue, or yellow: turquoise

You did not enter a requested color.

Press any key to continue . . .

**Sample run 3:**

When you enter two primary colors, I will tell you

what color they make when they are mixed together?

Enter red, blue, or yellow: yellow

Now enter red or blue: pink

You did not enter a requested color.

Press any key to continue . . .