Credit Name: CSE 2920 - CSE Project C

Assignment: UseButtonLEDs

How has your program changed from planning to coding to now? Please Explain

```
//Create
DigitalInput redButton = new DigitalInput();
DigitalOutput redLED = new DigitalOutput();
DigitalInput greenButton = new DigitalInput();
DigitalOutput greenLED = new DigitalOutput();

//Address
redButton.setHubPort(0);
redButton.setIsHubPortDevice(true);
redLED.setHubPort(1);
redLED.setIsHubPortDevice(true);
greenButton.setHubPort(5);
greenButton.setIsHubPortDevice(true);
greenLED.setHubPort(4);
greenLED.setIsHubPortDevice(true);

//Open
redButton.open(1000);
redLED.open(1000);
greenButton.open(1000);
greenLED.open(1000);
```

I made objects for all buttons and LEDS addressing their connection on the phidgets and then opened them exactly as in previous exercises.

```
            //Use your Phidgets
            int sum = 0;
            while(true){
                if( redButton.getState()){
                    sum += 1;
                    greenLED.setState(false);
                    System.out.println("Buttons Pressed: " + sum);
                } else {
                    greenLED.setState(true);
                }

                if(greenButton.getState()){
                    sum += 1;
                    redLED.setState(false);
                    System.out.println("Buttons Pressed: " + sum);
                } else {
                    redLED.setState(true);
                }

                Thread.sleep(150);
            }
        }
    }
```

In order for the buttons to turn OFF the LEDs, for the green button to control the red LED and vice versa, and lastly to print out a statement showing how many buttons were pressed so far:

I firstly initialised an int variable which holds the value of the total no. of buttons pressed. Then in a while(true) loop if the red button is pressed, which is when the code checks the state of the red button and if it is pressed(true) the if-conditions are met and the sum increases by 1, the GREEN LED turns off by setting its state to false. Otherwise the greenLED is set to false; this step is important to revert the state of the LED back to switched on after the red button is let go of. The same is done for the green button but it instead changes the state of the red LED.