Credit Name: CSE 2920 - CSE Project C

Assignment: LEDBrightness

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

```java
public static void main(String[] args) throws Exception{

    //Create
    DigitalOutput redLED = new DigitalOutput();

    //Address
    redLED.setHubPort(1);
    redLED.setIsHubPortDevice(true);

    //Open
    redLED.open(1000);
```

I created an object for, addressed and opened the red LED light.

```java
        //brightness increases in increments of 0.1/sec
        for(double i = 0;i<=10;i++ ) {
        redLED.setDutyCycle((i/10));
        Thread.sleep(1000);
    }

        redLED.setDutyCycle(0.0);
```

To get the brightness of the LED to gradually increase from off to maximum brightness. To do this i set up a for loop to go from 0 to 10 and to be treated as a double because i need to do double division. Then i set the brightness of the led to be increasing in increments of 10% of its max power by setting the argument of the setDutyCycle to (i/10). Therefore brightness will increase by 10% every second(thread.sleep(1000)) from 0% to 100% and after the loop ends the red LED turns off and then the program closes.