Debugging Fun Sensor4 Solution

Scenario: Tad wrote the following code for his Human Sensor Project.

He wants to see:

- lightPattern1() for sensor readings greater than 1000
- lightPattern2() for readings between 750 and 1000 including 1000
- lightPattern3() for readings between 500 and 750 including 750
- lightPattern4() for readings 500 and below

Actual Buggy Code Behavior:

- lightPattern1() for sensorValue > 1000
- lightPattern4() for sensorValue <=500
- Nothing happens for sensorValue in the range <= 1000 AND > 500

Misconceptions: Programming ranges. They wanted to do > 750 AND <= 1000. They mixed up the < and > and created some impossible conditions.

Solution:

```
loop() {
    sensorValue = analogRead(sensor);
    if (sensorValue > 1000) {
            lightPattern1();
    }
    if (sensorValue > 750 && sensorValue <= 1000) {
      lightPattern2();
    }
    if (sensorValue > 500 && sensorValue <= 750) {
      lightPattern3();
    }
    if (sensorValue <= 500) {
      lightPattern4();
    }
}
```