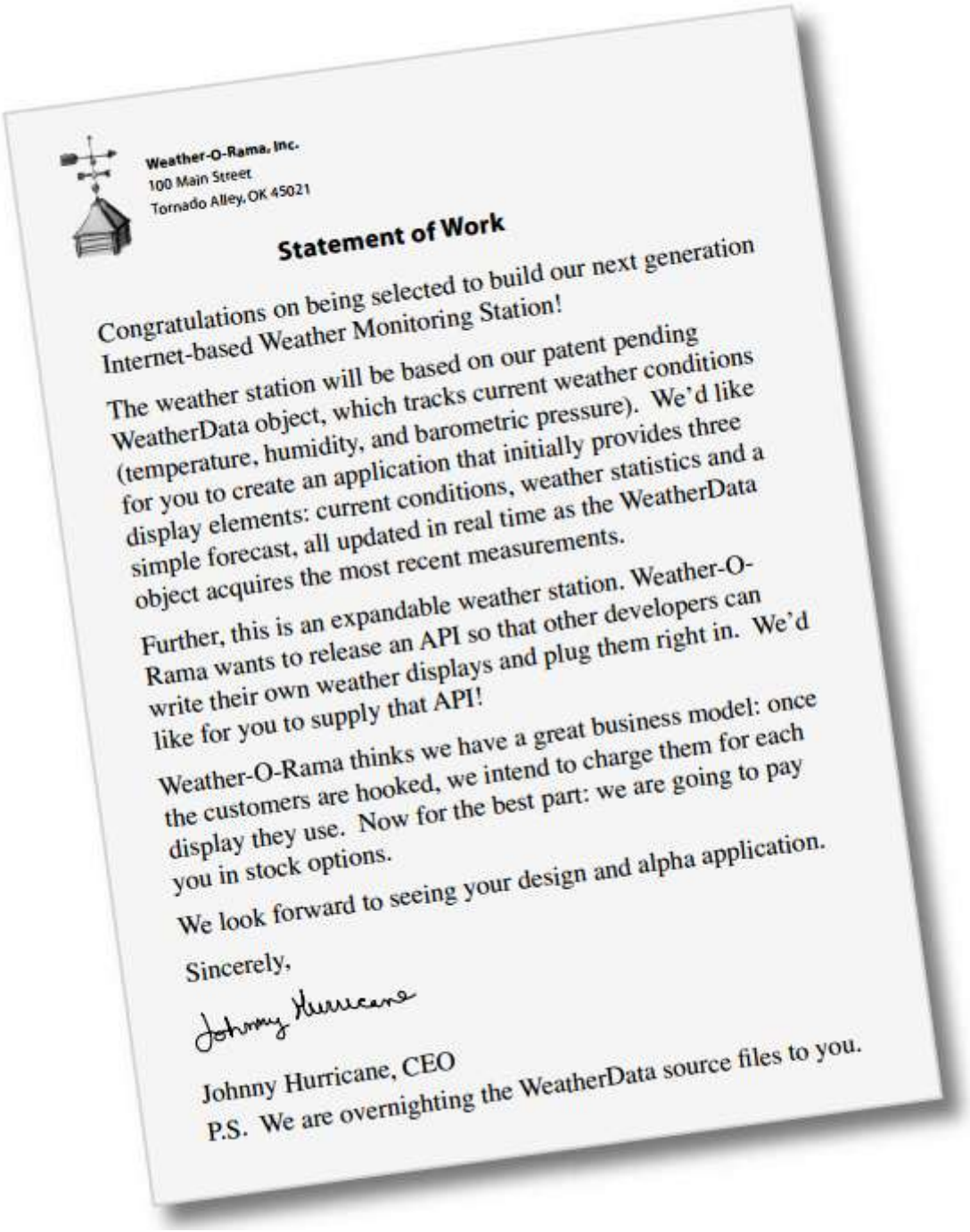
Internet-based Weather Monitoring Station

Tu equipo ha sido seleccionado para construir la siguiente generación del famoso “Internet-based Weather Monitoring Station” para la empresa “Weather-O-Rama, Inc.”.



Weather-O-Rama, Inc.
100 Main Street
Tornado Alley, OK 45021

Statement of Work

Congratulations on being selected to build our next generation Internet-based Weather Monitoring Station!

The weather station will be based on our patent pending WeatherData object, which tracks current weather conditions (temperature, humidity, and barometric pressure). We'd like for you to create an application that initially provides three display elements: current conditions, weather statistics and a simple forecast, all updated in real time as the WeatherData object acquires the most recent measurements.

Further, this is an expandable weather station. Weather-O-Rama wants to release an API so that other developers can write their own weather displays and plug them right in. We'd like for you to supply that API!

Weather-O-Rama thinks we have a great business model: once the customers are hooked, we intend to charge them for each display they use. Now for the best part: we are going to pay you in stock options.

We look forward to seeing your design and alpha application.

Sincerely,

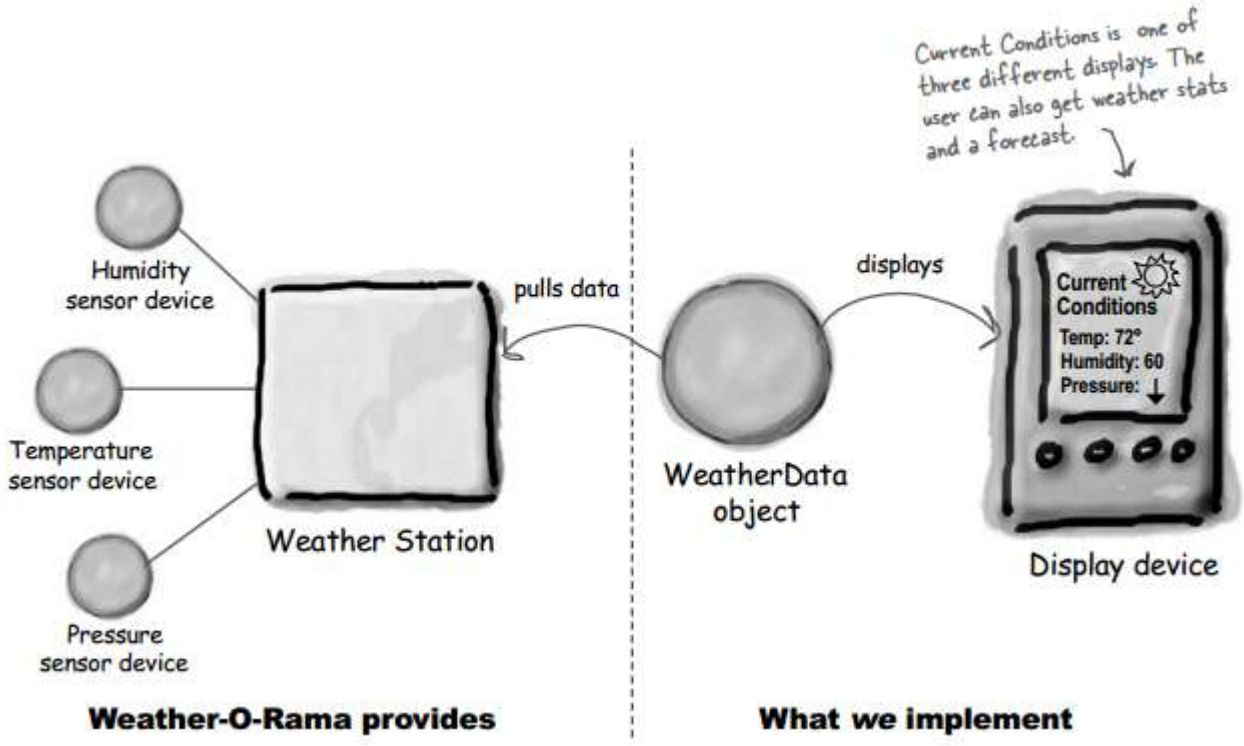
Johnny Hurricane

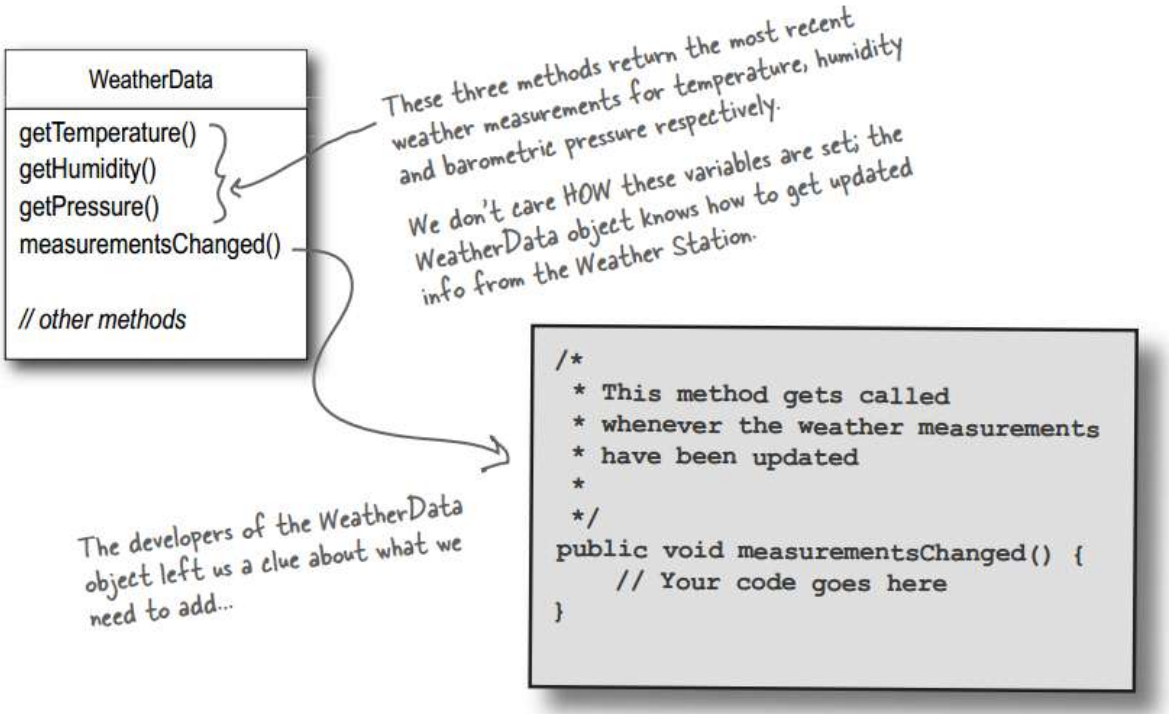
Johnny Hurricane, CEO

P.S. We are overnighting the WeatherData source files to you.

Arquitectura

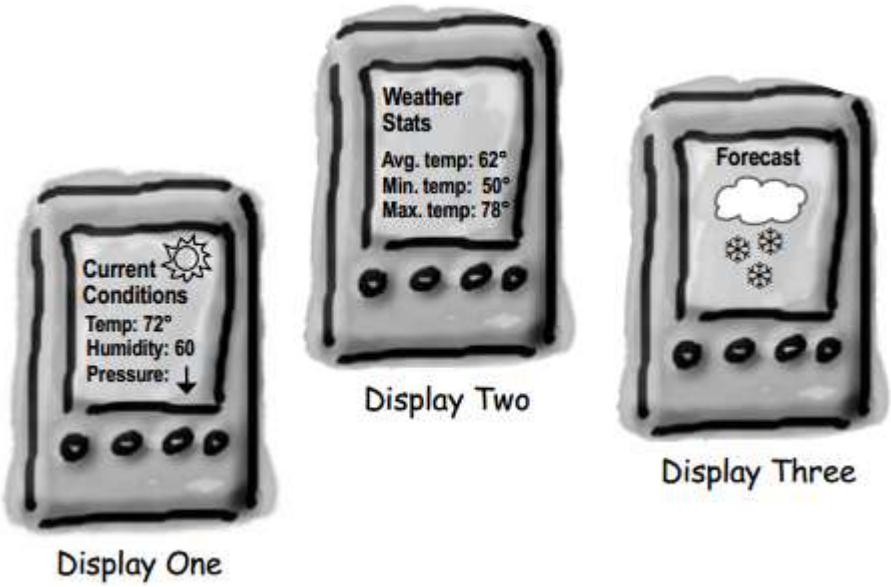
- Weather station: Dispositivo Físico que obtiene los datos del clima.
- WeatherData Objetct: Rastrea los datos provenientes del Weather Station y actualiza las pantallas.
- Displays: Pantallas que muestran a los usuarios las condiciones actuales del clima.





Nuestro Trabajo

Nuestro trabajo es crear una aplicación que use el WeatherData Object y actualice 3 diferentes tipos de pantallas (Current conditions, Weather Stats, Forecast).



El sistema debe ser fácilmente expandible: en el futuro, otros desarrolladores podrán crear nuevas pantallas y agregarlas fácilmente a la aplicación; los usuarios podrán agregar o remover de la aplicación, tantas pantallas como deseen.

El Diseño Inicial

Esta es nuestra primera implementación, hemos tomado la idea de los desarrolladores de “Weather-O-Rama” y agregamos nuestro código en el método measurementsChanged():

```
public class WeatherData {

    // instance variable declarations

    public void measurementsChanged() {

        float temp = getTemperature();
        float humidity = getHumidity();
        float pressure = getPressure();

        currentConditionsDisplay.update(temp, humidity, pressure);
        statisticsDisplay.update(temp, humidity, pressure);
        forecastDisplay.update(temp, humidity, pressure);
    }

    // other WeatherData methods here
}
```

Grab the most recent measuremets by calling the WeatherData's getter methods (already implemented).

Now update the displays...

Call each display element to update its display, passing it the most recent measurements.

¿Cuáles son los problemas de esta primera implementación?