Use Case 1: Request Measured Data
Scope: Weather Station
Level: User Goal
Primary Actor: User
Scenario: None
Related Use Cases: None
Stakeholders & Interests:

- User: wants the current weather data

Preconditions: The System is online and is periodically measuring the weather instruments.
Success Gurantees: The System returns the entire Weather Data suite to the User.

Main Success Scenario:

User	**System**
1. Request all the current Weather Data	
	2. Measures the Themometer, converts the Temperature data into Fahrenheit and Kelvin and returns the data in all three units
	3. Measures the Hygrometer and reuturns the data
	4. Measures the Barometer, converts the Pressure data into miilimeters of Mercury, and inches of Mercury and returns the data in all three units
	5. Calculates the Dewpoint, converts the data into Fahrenheit and Kelvin and returns the Dewpoint Data in all three units.
	6. Calculates the Heatindex, converts the data into Fahrenheit and Kelvin and returns the Heatindex data in all three units.
	7. Returns the Weather Data to the User

Extensions:
2a,3a,4a. If any or all of the Sensors are broken, then the System alerts the User of the Issue.
6a. If the temperature is too low to calculate the Heatindex ($< 70°$ Fahrentheit), then the System alerts the User it is too cold to calculate Heatindex.

Frequecy Of Occurence: Almost continuous

Special Requirements:

- The System periodically monitors the sensors, measuring the for the measured data
- On every occurence of the System monitoring the sensors, the System uses the measured data and caluculates Weather Data that is calculated
- On every occurence of the System monitoring the sensors, the System broadcasts the Weather Data for observers
- Asside from Humidity, the System choses a default measuring unit which the User can change

Open Issues:

- What if one or many of the Sensors are broken? Does the System continue to measure/collect other measured Weather Data?