**SensorManager**

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The purpose of SensorManager is to provide a means for application developers to utilize a device's built-in sensors. My experience while creating a simple application that uses the SensorManager class went quite well. I found that it was very simple to create the SensorManager object, then when the function onCreate is called, the application checks to see if an accelerometer is one of the device's sensors. If there is an accelerometer, a listener is registered to detect any changes detected by the accelerometer. When a change occurs, onSensorChanged is called, which then reads the values from the sensor event. It then takes those values that are received from the accelerometer and sets the TextView’s text to display the data that is received from the accelerometer. If no accelerometer is detected, a simple toast message is displayed that no accelerometer was detected.

SensorManager is used to create an instance of the service, list available sensors, determine sensor capabilities, acquire data from the device's sensors, and then register listeners for sensors that the application needs to be able to use. If we wanted to create a weather app, it would be useful to be able to utilize sensors such as a temperature sensor or humidity sensor. The developer can then use SensorManager to get this type of information from the device’s sensors, which can then be relayed or displayed back to the user.

Another use for SensorManager is when using the accelerometer, a developer can use this sensor to determine the orientation of the phone. This could be useful in many situations, for example, one situation could be a game that relies on the position of the device to determine how an object should move in the game. The tilting of the device can be detected by using SensorManager and the game can respond accordingly.