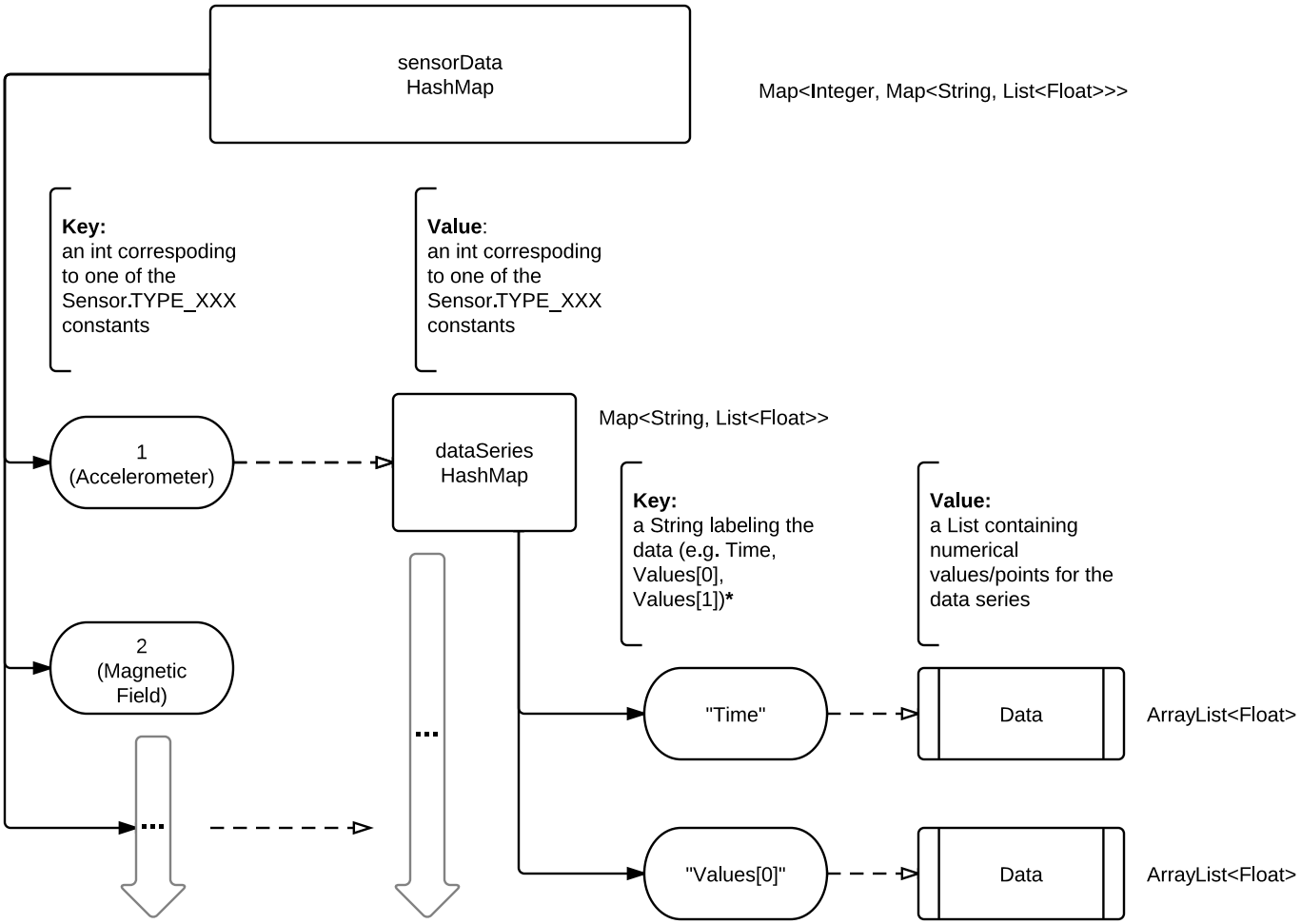
Data Structure Used to Record Sensor Data

This diagram describes the data structure that is populated when the app is recording sensor data. The app stores this data structure in a sqlite database by serializing it into a byte array. When retrieving the data from the database, the same data structure is recreated. Use helper methods defined in SensorDataDB to serialize (to insert into the database) and unpack (recover the sensor data from the database)



***Note**
Values[0], Values[1], etc. refers to values for different components of a sensor. When android triggers a SensorChangeEvent, it provides this float[] values array.

For example, the accelerometer has 3 axes; the value for the x-axis is contained in values[0], y-axis values[1], and z-axis values[2].

String keys are hardcoded as constants in MainMenuActivity.java

sensordatadb

SensorData	
_id (integer)	sqlite generated unique id
title (text)	title for the data set
notes (text)	notes about the data set
timestamp (integer)	unix timestamp of when the data was saved (usually right after it has been recorded)
data (blob)	bytes of serialized sensorData data structure (see diagram on that)
sensor_types (text)	comma-separated list of sensor type contsants, for quick reference of what sensors are included in the data set