

## Project 3 Design Guide

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### General Goal:

Add a step counter, custom gestures, and cloud backup to the app.

### Steps:

1. Implement a step counter module that keeps track of steps, and saves some recent step count history to room database:

Implement a step sensor with SensorManager to count the steps the user had walked. Back up this step number into the database and local file.

2. Implement a custom gesture to start the step counter, and a second custom gesture to stop it. Play an audio alert when the gesture is successfully used and the counter starts.

This is done with SensorManager as well.

3. Back up Room database file on Amazon Web Services S3 by backing up the file periodically. The backup should contain User profile data, Weather data and Sensor data from step counter. Put our local file (same content as database) to the cloud end provided by AWS.

4. Do user-interface and architecture polishing needed to accommodate these new changes:

Add a button that will open a fragment that reads and shows the number of steps from database.