Data, Data Storage and Data Processing:

It was decided that in order to maintain a consistent and clean database we would have to use MySQL, as this is the database that we are most comfortable using. The data that will be gathered will be data from the motion sensors after they detect movement, data on the location of the user(client), and login information of the users. The data will be stored in a database that will consist of three tables; One for storing the login data which includes username and passwords, the second table will contain the data from the motion sensors that will be placed around the house and finally the last table will hold the data from the GPS location of the client after they press the emergency help button.

The user login data will be stored in the first table of the database. When a user signs up to the service, the username and password will be sent to the database, the username will remain the same, but the password will be hashed before being sent to increase security of the app.

The motion sensors will detect motion and will send an ‘activation’ message to the database which will update the time of last activation of the specific motion sensor. This will help us keep track of the activity of the client around the house. The motion sensor outside of the house will detect movement and then the sensors in the house wont detect any movement for a couple of minutes, only then the motion sensor from outside of the house will send an update message to the database that updates the timestamp for the activation of the sensor.