Green House Manager

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**Hardware**

Raspberry pi model zero

Soil moisture sensors

Jumper cables

Insulation tape

Large LED light

DHT11  - humidity sensor

Temperature sensor

Power Bank

**Data**

**Data collected by the device** :

Device identification (device ID, Raspberry Pi model and version of   
software)

Time log of when sensor data was registered

temperature value in Celsius, humidity percentage from DHT11 sensor, soil moisture

percentage value

**Third party APIs**

Device will receive weather data in JSON format  -

Local temperature in Celsius (int)

Local humidity as percentage (int) sourced from the weatherapi.com.

**Data Storage and Processing**

Sensor data will be stored in a database. The database will be a MySQL database.

**SECURITY**

Database Security

- Information will be encrypted

- Permissions to write and read will be assigned to users who access the database

- Strong passwords will be used

When transferring data, secure protocols HTTPS and SFTP will be used

Data will be encrypted with SHA256 encryption

**User Interface**

**User Personas**

**Testing**