**Data-Collector-RPI0**

1. **Flow of the application:**

Diagram

Description automatically generated

1. **Location details of the components:**

* Application code path on respective RPI server
* Current RPI details need to be added [here](https://console.firebase.google.com/u/1/project/rpi-dataset/firestore/data/~2FRPI-details~2Fblackbox)
* Centralized Local database (on webserver - webserver@128.192.158.63) path: **/var/www/aspendb/probesearch/SensorsData**
* Firebase collection needs to be created.
* Firebase API (on webserver - webserver@128.192.158.63) path: **/var/www/aspendb/probesearch/rpi0**
* Local database API (on webserver - webserver@128.192.158.63) path: **/var/www/aspendb/probesearch/SensorsData**

1. **Technical details:**
   * The application is built using Python.
   * To check status or start or stop or restart the service of the application use below command on the webserver:
     + sudo systemctl status datacollector
     + sudo systemctl start datacollector
     + sudo systemctl stop datacollector
     + sudo systemctl restart datacollector
   * The above service file can be found at:
     + sudo nano /lib/systemd/system/ datacollector.service
2. **Before starting the application, RPI needs to be registered.**
   * Add respective RPI details [here](https://console.firebase.google.com/u/1/project/rpi-dataset/firestore/data/~2FRPI-details~2Fblackbox)
   * Create a collection in firebase.
   * Create a database table in Data-Store.db on webserver - webserver@128.192.158.63 path: **/var/www/aspendb/probesearch/SensorsData**
3. **Application Summary:**
   * This application is built to store observations from the sensor like temperature, humidity, brightness, and images.
   * RPI0 does not support firebase libraries so two separate API’s are written one to store data in firebase and another one to store data in local storage.
4. **[GitHub link](https://github.com/sakshi-seth-17/Data-Collector-RPI0.git)**
5. **Follow below steps to setup this application:**
   * Download code from GitHub.
   * Create virtual environment – python3 -m venv venv
   * Next, source venv/bin/activate
   * Next, pip3 install -r requirement.txt
   * To check if application is working fine run – python3 app.py
   * Check if data is getting stored in the database and firebase.