BTP DOCUMENTATION

## Performance Measurement of Pollution Measuring IOT Platform

# Global variables:

In order of occurrence

|  |  |
| --- | --- |
| \*file | This is the name of file currently being used to strore readings |
| \*file\_limit | The maximum number of lines written in a file before a new file is made |
| \*file\_lines | The number of lines that have currently been written to the file |
| address\_prefix | stores the address of the folder which contains the folders containing sensor data files. Is empty by default. |

\* can have five values- arduino(used for MPU data), bme, image, gps and pol

# Functions:

In order of occurrence

|  |  |
| --- | --- |
| process\_directory(localdir,db) | Upload files in the ‘localdir’ to database ‘db’. Do not upload the file that is currently being written to. Deletes file after successful upload. |
| write\_to\_firebase(db) | Look for internet availability, when found process directories one by one and upload to database ‘db’. Go to sleep if all are processed or connectivity is not there. |
| internet\_on() | check for internet connectivity |
| writearduino(ser) | read the serial channel ‘ser’ and check if the line contains data from MPU, PMS or BME. Writes the MPU data to SD card. For the other two, respective functions are called. |
| writeimage() | Capture an image from Picamera and write it to Sd card after compression as base64 string. (No compression is done is sensor\_polling\_compression.py) |
| writepol(pol\_data) | writes the string ‘pol\_data’ to sd card |
| writebme(bme\_data) | writes the string ‘bme\_data’ to sd card |