



DASS Project Plan v1



Team 51

Abhijit Srivastava, 2019113032

Gaurav Singh, 2020111014

Kavya Kolli, 2019101127

Pratyay Suvarnapathaki, 2020111016



Overview

Project number	50
Project Title	Framework to access and Validate sensor data
Document	DASS Project Plan v1.0
Creation date	11th February, 2021
Created By	Kavya Kolli, Pratyay Suvarnapathaki
Client	Prof. Anuradha Vатtem, Smart City Living Lab, IIITH



Problem Statement

The Smart City Living Lab has recently deployed more than 100 data collection nodes across the campus. These nodes track various metrics for air quality, water quality, energy, weather, etc. Thus, a large amount of data is being generated.

The natural extension of this hardware framework is to build a robust software setup to ensure accuracy and consistency in sensor readings. Factors such as hardware malfunctions, network failures, or software glitches affect data quality and result in inaccurate data generation.

Therefore, our role is to develop a framework to integrate with the existing oneM2M-based setup, and implement features such as uniform data quality validation, outlier detection, and hardware malfunction indication.



Team Communication

The team will meet at least once a week between themselves. They will also have a text channel which will be used to address any smaller/more sudden issues that occur. They will also meet with the client once a week to touch base.



Development Environment

VSCode for coding, possibly using the Live Share extension for live collaboration.

Git for version control, and GitLab for Agile organization and repo hosting.

Python as the primary language.

Google suite (GMeet / Slides / Docs) for communication with the client and making deliverable documents.



Milestone Schedule

Milestone	Due Date	Release	Deliverable?
Create draft requirements	03-02-22	R1	No
Finalise Requirements	15-02-22	R1	Yes
Create a program that checks the time intervals of data posting via nodes	20-02-22	R1	Yes
Create a program to check if nodes are sending invalid/outlier data	25-02-22	R1	Yes
Testing, Preparing for and delivering R1	03-03-22	R1	Yes
Coordinating with client to refine requirements after R1	08-03-22	R2	No
Create an alert system that sends an email/mobile notification if outlier data is detected	xx-03-22	R2	Yes
Create a program that sends a summary of health reports regularly (frequency TBD)	xx-04-22	R2	Yes
Optional Requirement UC05	xx-04-22	R2	Yes
Testing, Preparing and delivering R2	27-04-22	R2	Yes