**Project Blue Book**

**Project Plan**

**Phase-1**

**Developing a monitoring system for with 2 sensors readings**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL** | **Task** | **Planned** | **Executed** | **Comment** |
| **1** | **Project Architecture** | **01-08-2023** | **01-08-2023** | **In for changes** |
| **2** | **Hardware requirements** | **01-08-2023** | **01-08-2023** | **In for changes** |
| **3** | **Software requirement and plan** | **01-08-2023** | **01-08-2023** | **In for changes** |
| **4** | **Software development** | **01-08-2023** |  |  |
| **5** | **Hardware setup and installation** | **01-08-2023** |  |  |
| **6** | **Software testing** | **01-08-2023** |  |  |
| **7** | **Hardware and software testing** | **01-08-2023** |  |  |
| **8** | **Documentation** | **01-08-2023** |  |  |

**Hardware Requirements:-**

* **Raspberry Pi – 2 one for server and one for client**
* **Temperature sensor – 1**
* **Humidity sensor - 1**
* **Connecting wires – 1 set**
* **Bread board – 1**
* **Power supply for Rpi – 2**

**Software requirement and plan**

1. **Code development for data monitoring** 
   1. **Using RPi monitor the temperature and humidity in real time.**
   2. **Write monitoring code the sensor. Use class and functions for this and keep it short.**
   3. **In the code include a function to transmit the sensor values as a topic via paho mqtt.**
2. **Code development for data storage and visualization.**
   1. **Using RPi visualize and store the temperature and humidity in real time.**
   2. **Use NodeRED to access the mqtt topics streamline the topics to influxdb and develop a graphics in nodeRED.**
   3. **Use Grafana to visualize the temperature and humidity data.**
3. **Containerize the whole application.**