PROJECT PLAN DOCUMENT

Project number	36
Project Title	Making H-105 a smart classroom
Document	DASS Project Plan Document
Creation date	2-03-2020
Created By	Akash Verma , Archit Goyal , Vishal Verma, Priyanshu Madaan
Client	Dr. Vishal Garg

Brief problem statement :

Automate the lightning system on the basis of the schedule entered by admin.Automate AC on the basis of internal and external environment and type of people inside the room (*students*, *VIP* or *VVIP*). Provide a checklist of instruments and send notifications to staff before any event in the classroom. Controlling lights for projectors.

Team Members:

Team Member	Role
Dr. Vishal Garg	Client/Guide
Simran Singhal	Mentor(client Side)
Sireesha Vakada	TA(Mentor)
Archit Goyal	Developer
Priyanshu Madaan	Developer
Akash Verma	Developer
Vishal Verma	Developer

Team Communication:

- Weekly meetings at the Clients office.
- Social Media (*Whatsapp*, *Messenger, Microsoft TEAMS, Meetings*), Email for minor clarifications.

Development Environment:

- For communicating to sensor hardware : ***Arduino IDE***, ***ESP32 board***, ***IR sensors***
- For app : Android Studio,VS Code, Express, java.

Milestone Schedule:

Milestone	Due Date	Release	Deliverable?
Create draft requirements	-	-	No
Finalize requirements	-	R1	No
Developing Hardware Sensors	**10-02-2020**	R1	Yes
Basic app to control Sensors	28-02-2020	R1	Yes
Building Unified Backend for all IOT devices and App	14-03-2020	R2	Yes
Building Android App's front-end	23-03-2020	R2	Yes
Front-end development as design was changed by Client	17-04-2020	R2	Yes
Integrating App,Backend,IOT devices	22--04-2020	R2	Yes

Milestone Schedule (Detailed):

Sprint 1:

- Survey:Study Sensors Used in ESP32
- Survey:Study About Classroom Automation System
- Survey:Study About ESP32

Sprint 2:

- Survey:Evaporator layout
- Survey:AC layout
- Survey:Occupancy layout
- Survey:Electrical layout

Sprint 3:

- Temp&Humid Sensor:Coding ESP32 for receiving data from sensors
- Temp&Humid Sensor:Building circuit
- AC:Configuring ESP32 for IR emitter
- Lights:Coding ESP32 for checking server connection
- Lights:Testing ESP32 board and LED's

Sprint 4:

- Temp&Humid Sensor:Updating backend and posting data to server
- Lights:Server and Backend coding for use case
- Temp&Humid Sensor:Testing circuit and sensors
- AC:Testing emitter on AC
- AC:Training emitter from AC remote
- Lights:Use case coding on ESP32

Sprint 5:

- Building Database Schema for the backend
- Normalising Database schema
- Setting AWS Server
- Server changed by client

Sprint 6:

- Android APP:Implementing use cases
- Android APP:Building UI
- Temp&Humid Sensor:Integration with Sever
- AC: Backend Coding to send IR signals
- Lights:Use cases coding based on occupancy levels

Sprint 7:

- Android APP:Building UI
- Front end design discarded by client
- Making new Front end design
- Front end Approved by Client

Sprint 8:

- Developing new changed front-end design
- Added keys which were demanded by client
- Sensor coding to push code to server
- Development of use cases finished
- Deploying the Control Panel(Android Tablet)