**Introduction**

This project is a startup step of a group of an infrastructure engineers into building their own product for a client of theirs.

The team consists of a three members Robert, Ibrahim and Gabriel. All three are a first-year infrastructure students at Fontys university at Eindhoven.

This project was proposed to them by a client in need of a product to help maintain and control their environment. Given that this is the team’s first standalone project every member is eager to prove themself as a capable engineer and make a mark for themselves by producing an excellent result for their work.

**Project background**

The client presented a request to provide him with a full layout build of their network and inside the main building.

The environment that the client has currently is a company that works with two warehouses and a main office. Given that the three locations are placed around the Netherlands, the need of communication and monitoring of the warehouses plus control over the data present on the website is a must to ease the management of the company’s resources.

**Problem definition**

For a successful delivery of the project the team has to meet the requirements of the clients in regards of his working environment, this environment is as followed:

A host server that will be responsible for the management of users and their workload separation. Additional data storing is needed through the use of databases which will be installed onto the server hosting the website to facilitate access to the data from website to tables.

Alongside the installation an active monitoring system is needed to monitor the warehouses and update the data content frequently to match available information to the data registered.

To simulate this environment the team opted to imitate the project in a controlled environment on base with a designed layout matching that of the customer’s firm,

The layout will host a web server and a database that contains all the information’s about the company and the items available in inventory, the client has two warehouses that needs monitoring and updating. Alongside the warehouses a website is needed, the website will be presenting the items in the warehouse, the items are added to the database on the database server.

**Milestones**

For this project the milestones are in the following order:

|  |  |
| --- | --- |
| Week 11 | Start with project plan – finish pitch presentation |
| Week 12 | Having part of the documents ready and finalized after a successful pitch while the remaining part would go for the next week.  Documents include:  Project plan – design document – project roadmap – client’s personas. |
| Week 13 | All documents are ready and finished – server is setup for the layout and ready to deploy work to it. |
| Week 14 | Web server is deployed – website dummy is deployed – database is deployed and ready. |
| Week 15 | Encryption is managed and tested Arduino is tested. |
| Week 16 | Encryption is deployed on server with Arduino. |
| Week 17 | Website is running alongside database taking data from it and sending to it  Encryption is deployed to database and Arduino is sending to the server. |
| Week 18 | Deliver all workload on time. |

**Constrains**

Some of the constrains that would hold the project:

1. Encryption is not a success and would delay the deployment.
2. Constrains on the connection to the private server limiting the connection to the setup in testing.
3. Costs for purchase parts for the project is unavailable making what Is present the only available resources to work with
4. Some of the presented ideas may prove difficult for the moment for the team, this might affect the quality of the final result presented.