

INTERNSHIP WEEKLY REPORT

WEEK FOUR

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Introduction

This week started with improving the list of all clients, which is a list of all the clients connected to the server. Next task was one to one sending data with authentication. In this we have a device which sends data only after checking if the other device is active and if it is not activated. This task was rather tough. There was also a task of sending files through MQTT.

TASKS

- We have to maintain a hash table of all clients connected to the server.
 - We create a topic where everyone publishes their status which is if they are connected or not. [\[Github\]](#)
 - Then we subscribe to this topic to get all the clients on the server. This is the only way as due to privacy reasons client identity is hidden to others.
 - In [Device Discovery](#) we have to first check if the other client is connected or not.
 - First we create a topic where we publish the status of the device whether it is connected or not.
 - The other device subscribed to that topic can hence know the status.
 - Hence after connection is achieved we can send data.
 - This task was challenging for me. I was able to do one side authentication. But found it hard to check on both sides.
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Problems

- Device discovery was a challenging task. I tried many times but was not able to fully solve it. I tried but there were errors to logic. And the task looked a bit overwhelming and complex. I was able to do one side check only.

Conclusion

I hope to solve this Device Discovery task. I am not happy with my work till now. I hope I will be able to do it in the future.