* What type of programming experience?

C#, JS, css and html

* Waht have you done with micro controllers, which ones have you used?

I have not worked or used micro controllers

* Which single board computers do you know/have you used?

I have not used ones

* Who is a maker of part of a community? What do you like, would you like about it?

I

* What do you already know about IoT?

What I know is that all visual information board like the phone, timetable in the bus station etc is part of the IoT

To learn more about IoT, and gain more knowlage

**Excercise 1**

* **What does the Internet of Things entail?**

The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers ([UIDs](https://internetofthingsagenda.techtarget.com/definition/unique-identifier-UID)) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

* **3 domains**

1. Network- centric IoT
2. Cloud-centric IoT
3. Data-centric IoT

* **2 commonly used (data) protocols**

1. Constrained Application Protocol (CoAP)
2. Message Queuing Telemetry Transport (MQTT)

* **2 typical devices**

1. Smart TV
2. Smart speakers
3. Smart phones
4. Automotive
5. Smart home devices

* **What is the benefits of IoT?**

Makes shopping easier

the IoT does things for you like smarter shopping,

driving cars,

and cleaning at home.

To communicate with others, technology does things for us,

more sensors that they spread around the world,

problem solving,

you can have many connected devices in the same time, 20billion connected devices by 2025, only needs one interface for companys managing diffrent parts in the company instead of having diffret interface to each sector, prediction before something goes wrong through sensors, helps customers to get information in before hand to know when a deliviery will arrive, can bring the ecosystem together.

* **What are the challenges?**

Implementing it to the society, getting people to use it. Many required pices like hardware, machines are slow, the cost is very high, dont find acceptence in the market, Communication between devices, very slow adaption in the hostpitals, lack of security in the automotiv field and airplanes, there are mmany things to think about when companys whant to implement IoT tht makes it harder for them to implement it, Alot of data in process and can’t store it in the cloud.

**Hardware**

* **Why sep8266?**

Can use them in switchers to turn on and off power. You can build many things like led, add sensors, its affordeble,

* **What is personally inspiring for you?**

The structure of the micro controllers, and the many kinds of it.

* **What is the connection to coffee?**

Expresso light is the name of the module, the same price as a coffee

Lab IoT Hello World, notes

Got the link from Ulno, Clicked on the link from my macbook and got the message:

Graphical user interface, text, application, email

Description automatically generated

*Appendix 1(Note message for the installment of CH340 Driver on MAC)*

Ulno told me thats its ok to install and did not have to install any drivers which seemd like a good sign as a mac user. This is a good to know for the mac users that run through this problem, my recommendation is to read the "readme" pdf file that comes with carefully and follow the instructions from the manual. I now did something that did not need to be done, as I am usually in a hurry to get things done relatively quickly, but this is something I learned from for the future. I began installing the arduino ide and for me it took a bit if time becouse of my mac. It worked in the end after I had to restart my mac for the installment. I dont thing the restart was nessasery for this, and only needed to install arduino ide, which what I did after the restart and it worked well, and was on track with the group. Inuo explained the structure of demos di & mini and teah us the meaning of the 5v on the micro controller , which was meant for the usb connection that required 5volts.

Uilno then explained the code that was pre-installed on the arduino, the code was specified for the device to make its LED light flash and he went through how we could control the device through the server on the computer and we did it using wifi

Explaining the structure of demos di & mini controller

Going through the setup to light up the led

We had to use the hotspot and not the wifi in the university eudorm, becouse the devices is not powerful enogh for that network, one solution is to use diffrent

When we got the chance to start experimenting with the device, I managed to make it flash with the help of his review. The second experiment to control the device via wifi and a server through the computer I also managed without any contours.

GPIO = General Input Output

**reflection on lesson 1**

I did not know what was expected in this course, but it turned out to be very relevant and interesting topics. I was not so familiar with IoT but got a good understanding of the subject, it was a bit tough at the beginning of the lesson with theory review but became more and more interesting over time. The devices we got to experiment with were very interesting to me, as since I was young I have liked to assemble and experiment with things. The teacher is very active and passionate, which motivates me to learn more from this course. During the course I had problems with installations due to the fact that I use a mac but got it solved in the end. I look forward to the upcoming lessons.