**Project Kickoff Meeting🚀 19th March 2022**

**Attendees**

* Aidan, Ian



**Background**

* We’re creating a web-based application based on the NASA space station context.
* **Design:** Design docs deadline - 18th April
* **Implementation:** The code must be finished by: week 23 May
* **Demo:** The demo of the product and codebase is on: 26 May

**Scope**

* Restful API to speak with the database
* Authentication details WAD Domain Controller OR local hashing and salting (research the pros and cons of each system)
* Producer/Consumer for ?
* MFA —- pyotp library with most secure encoding sha\_512 (reference why sha\_512 is secure)
* Testing —- pytest for unit tests automated with github actions
* Diagrams: Activity diagram, Class Diagram, Sequence Diagram

**Roles**

* Ian - Developer and Content Writer
* Aidan - Developer and Content Writer

**Questions**

Potential to use Windows Active Directory Domain Controller

* + **Will this force us to use one OS?** No, you can use either.
  + **Is it more secure than using a DB with hashing and salting?** Check out pros and cons.

**Notepad**

* **Data storage: PostGres DB** – has option to store JSON data as well as structured table data
* **MFA:** pyopt – with sha\_512 encoding (get a reference!)
* **Fault Tolerance** - how to deal with failed server, loss of communication
* **Testing** — pytest (brief research on security of pytest vs unittest)
* **REST Api** to speak with database (implemented in flask)
* **Microservices**: Ground Control, Space Control (each with their own db?)
* **Applications**: Data Monitor
  + login (can we use public API for list of authorised users?),
  + dashboard to monitor data,
* **Applications**: System Controller
  + login,
  + IP logging and filtering,
  + security against DoS attacks,
  + ability to communicate with space station
    - Increase oxygen,
    - decrease oxygen,
    - increase temp,
    - decrease temp,
    - ability to disable space station controls.

**Actions**

* ERD for data structure (table for each sensor?)
* Set up database
* Decide on API endpoints

**Next Meeting**

Tuesday 6.30pm: Agenda Database design – database endpoints