Proposed Level of Achievement: **Gemini**

Target Audience: **Members of NUS (freshmen especially)**

**Motivation and project idea:**

During our freshmen year, content in many modules was heavy, challenging, and unknown, leaving many of us struggling. Having a platform to engage with seniors and other students familiar with our course module would have been extremely beneficial, especially considering many professors and lecturers may not have the time or resources to cater to every students’ needs.

Hence, we have decided to create an interactive android application which serves as a vehicle to allow students to book, join, and gain from various study sessions occurring across the campus. Moreover, apart from being used as a platform to organise study sessions between various groups of students across NUS. It gives NUS students, especially undergraduates and freshmen, the ability to collaborate and consolidate their strengths and weaknesses within certain areas of their academic learning.

**Functionalities and features:**

* User authentication (username and password)
* User details: modules taken
* Creating and hosting study sessions
* Using CRUD in conjunction with Firebase to keep track of students’ details (basic database for storage)
* Listing of all current study sessions

**Development Plan (timeline since Orbital Ignition):**

* Week 1: finalise on ideas and meet up with advisor to consolidate our idea
* Week 2: prepare for ideation by finalising major features of the product
* Week 3: finalise the list of major software and respective technicalities needed
* Week 4: finalise initial frontend sketches and establish user authentication
* Week 5: refine initial design ideas and work extensively on backend database development
* Week 6: establish list feature for study sessions (both frontend and backend)
* Week 7: implement additional features (e.g. modules taken, create and host study sessions)
* Week 8: continue backend development, while concurrently developing frontend UI
* Week 9: finalise initial prototype of our product
* Week 10: refine both frontend and backend, with emphasis on frontend development

**Task list for designing the system:**

|  |  |
| --- | --- |
| Task | Duration (Hours) |
| Lift-off Day 1 | 9 |
| Lift-off Day 2 | 9 |
| Initial ideation and testing of various software to design the product (Firebase and CRUD, Android Studio, IOS with Swift 4, Piskel, Photoshop, Illustrator, Excel) | 20 |
| Designing main frontend framework as well as structuring backend mainframe | 32 |
| Gathering data for databases to implement listing feature, as well as create database for modules in conjunction with prerequisites | 16 |
| Building and developing application, with full user-interface and backend support | 14 |
| Testing and debugging (backend, as well as after integration with frontend UI) | 40 |
| Total number of hours (tentative) | 140 |

**Necessary technologies needed:**

1. Firebase
2. Android Studio
3. Photoshop/Illustrator (for front end UI design)
4. Figma (designing User Interface panels)

*Please note, these are the required technologies that will be essential for the design at this stage. If further technologies are required in the future, this list may be expanded appropriately as and when required. At this stage, we have finalised our idea, ideated which software and platforms we will be using for product development, as well as sketched a rough timeline to achieve major requirements of the solution.*