Good Programming Habits and Habit Tracking

Over the next few weeks we need you to start exploring programming in some more breadth.

- The first years need to start exploring the fundamental building blocks of programming, in a number of different languages, and to develop the ability to compare language features.
- The second years need to start exploring different platforms.

Over the next few weeks we want you to build a habit tracking app. The app should allow users to:

- set up several habits that they want to track,
- choose an interval and timescale (15 mins a day, or an hour a week, for example),
- track the habits in an easy way.

Ideally, the app should support habits, rather than adding <u>friction</u> to the system. You should schedule in some research time, and a Design Thinking session, to explore this issue before you start work. Don't spend the whole first week on this! Give yourselves a couple of hours for research, and an hour or so for a Design Thinking exercise.

For the last project, you started at the front end and then developed a database later. For this project we want you to focus on the database design and backend first, produce an API to access the back end, and then develop several front ends on different platforms.

Some things to think about:

- For the database, look at your learning outcomes and work out what type of database would suit the LOs that you still have to complete.

- Work out how you are going to spend your time over the first week carefully. Don't end up with half the team sitting doing nothing while they wait for others to set the database up. Break down the tasks and try to get as much work happening in parallel as possible.

- Use down-time in the first week to focus on kick starting your programming practice.

While you do this work, you also need to be developing some good habits. We want you to choose some habits that you want to develop around programming, to tell us what they are, and then to start tracking them. Use a simple method for now (a bullet journal, a spreadsheet, notes on your phone, whatever). Later, we will be asking you to reflect on whether the app that you create does actually help you support those habits, or not.