School of Computing  
CA326 Year 3 Project Proposal Form

**SECTION A**

Project Title – Attend-It App

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Student 3 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID Number \_\_\_\_\_\_\_\_\_\_\_

*(A third team member is exceptional and requires detailed justification.)*

Staff Member Consulted \_\_\_Dónal Fitzpatrick\_\_\_\_\_\_\_\_\_\_

Project Description (1-2 pages):

Throughout DCU, many student are required to attend lectures in order to make up elements of their continuous assessment and achieve a high grade in their modules. The attendance at lectures, practicals, and tutorials can also be used to determine whether a student will be allowed to appeal an exam result, for instance if the student hasn’t attended over 50% of tutorials in a subject, they may not be granted the appeal of their result. We have found that in lectures and tutorials specifically, when we had attendance based modules, that a lot of time was taken up by passing around a sheet of paper for the students to sign their name and student number. The first, and most blatant problem with this strategy, is the ease at which someone who is not present in the class can send a message to their friend who is present to sign their name and student number for them ensuring they don’t miss out on marks. Secondly, is the time taken up by the lecturer after this class to go through these sheets of paper to transfer the data over to loop. This can be worsened by messy handwriting/mistakes making eligibility a massive problem.

Our idea for our third year project, is to design an app, implementing NFC technology, as it is cheap and also widely available, to help students and lecturers alike to help students keep track of what classes they are missing and how many they are missing. The lecturers will benefit from time being used more efficiently, so rather than sending round paper and transferring the data after every single lecture, they can see, in real time what students are currently ‘tagged in’ to their class. We see this app as a useful tool for students and lecturers to keep up to date with cancelled lectures, important lectures and ‘Must Attend’ lectures, as some students do not check their emails regularly or even at all. It may also help to flag certain students to a lecturer coming up to a lab exam. If a student has not attended any lectures within the first few weeks and there is a lab exam coming up, a lecturer now has the opportunity to know who to keep an eye on.

We also wanted to incorporate an 'achievements' section in our app as such to help with motivation for students to attend more classes, e.g. attending all lectures in a given week, attending all lectures for a certain module, attending all lectures in a month, and all lectures in a semester. We feel this would be a great thing for students to be reminded regularly about how much they are missing to give them some motivation to start attending these lectures again.

Division of Work

Work will be split 50/50 during the entirety of the project. If one person feels they are stronger at a certain aspect of the project, they may take over and contribute more to this particular topic and enlighten the other person for them to improve at this topic and vice versa. We both aim to learn as much as we can from this project by being involved in every part and checking over each other’s work regularly.

Programming Languages

We have not yet chosen exactly what language we wish to write primarily in, however, we will likely be using one (if not both) of java and python, in which we are both proficient. We may also need to incorporate some MySQL whilst accessing the student database, and also reactjs to create an accessible user interface for everybody that can use our app in DCU.

Programming Tools

Editor – Sublime Text / Atom

GitLab – For version control and editing

Database – Some sort of student database, existing or otherwise

Learning Challenges

There will be many challenges to face since this will be our first time doing a project like this. We are going to try to make the app very accessible so that any student would find it easy to use. NFC tags are going to be used so tinkering with that feature will be a huge learning curve.

Incorporating different languages will be another challenge that we have not yet faced. For example perhaps we will us MySQL in order to manipulate the student database and then use this alongside python/java to create a working app and reactjs to create an easy to use user interface.

Research has to be done continuously throughout this project. Firstly, we’ll have to look up different apps that have a similar idea to us. Questionnaires will have to be drawn up and given out to different students in the DCU campus. This feedback will be important as it will shape the design and implementation of the app.

Hardware/ Software Platform

The software platform we will be using is Microsoft Windows and MacOs.