# Working Title

Plant View

# Project Description

I will be developing an Android application intended to be used on a tablet. The application will make use of the tablets camera, GPS and Wi-Fi capabilities. It is intended to be used on an industrial site to provide the user with information on the equipment and vessels within their immediate area. The camera would be used to show the user what the tablet can see and also provide a user interface for selecting information. Once an item has been selected the application will be able to show the user relevant information about that item that they would want to know. This could include things such as current temperature and the temperature history over time. With this information the user could then decide if any immediate action needed to be taken. The camera can also be used to scan QR codes to make it easier to select an item if there are a lot in a small area.

In order to be able to mark the locations that the Android application will pick up a separate web application will be developed to put each point on a map. It will use google maps to allow the user to see exactly where they are placing the point. Once a point has been placed it can be named and it will be stored in a database along with the latitude and longitude. The web application will also work on the tablet, allowing the user to walk around and plot new points as they see fit.

# Rationale for Choice

The project idea was provided to me by a local company called Sabisu who employed me during my year in industry. Towards the end of my placement I was given a project specification of what they wanted. Since then I have been it to speak with my manager to further flesh out the specification and talk about technical details and challenges I would face. I have also been having bi-weekly meetings with my project supervisor from Sabisu to discuss progress and next steps in the project.

Android has also been a passion of mine for a couple of years so I am looking forward to be able create a fully-fledged professional Android application, that will be used by people and be able to help make their jobs easier. Developing the app will build on my knowledge from personal projects as well as the work done during the Enterprise Project in second year. It will also allow me to explore new aspects of Android that I haven’t tried before such as reading data from a web service and using the devices compass to find the users orientation.

Finally, as the web application will be written in Node JS this will give me the opportunity to learn at framework that I have been wanting to try for a while. Also as Node JS is a very up and coming technology I feel that it would help with my job prospects if I can prove that I can use it effectively.

# Areas for Investigation

# Background Research

# Methodology

# Research Ethics

# Project Plan

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| Week Number | Week Commencing | Task | Deadlines |
| 1 | 30/01/2017 | Finish work on web application | - |
| 2 | 06/02/2017 | Testing of web app and start on C# web service | - |
| 3 | 13/02/2017 | Completion of C# web service and testing | - |
| 4 | 20/02/2017 | Start of Android Application – basic camera and location functionality. Start of review poster | - |
| 5 | 27/02/2017 | App development – compass working. Finish poster, start report | Poster review |
| 6 | 06/03/2017 | App development – connecting with Node JS web service & C#.  Report on going | - |
| 7 | 13/03/2017 | App development – UI implementation.  Report on going | - |
| 8 | 20/03/2017 | App development – showing data on UI.  Report on going | - |
| 9 | 27/03/2017 | App development – adding graphs.  Report on going | - |
| Easter Week 1 | 03/04/2017 | App development – QR scanning.  Report on going | - |
| Easter Week 2 | 10/04/2017 | App testing, rework from testing. Report on going | - |
| Easter Week 3 | 17/04/2017 | Rework from testing | - |
| 10 | 24/04/2017 | Report | - |
| 11 | 01/05/2017 | Report and final checks on all aspects of project | - |
| 12 | 08/05/2017 | Review of report | Report and item submission |
| 13 | 15/05/2017 | Project Viva 1 | - |
| 14 | 22/05/2017 | Project Viva 2 | - |

# Deliverables