Project Presentation

# Objective and End Users

The objective of our Android application is to provide a means for users to improve their learning of Te Reo sentence structures, specifically on negatives (ehara).

This will provide students with a portable resource that can be easily accessed and that complements existing classroom resources.

The end users of the project will be students from Whitireia’s Te Reo Maori school.

The school offers three courses, ranging from Level 1 to Level 5: Te Hiringa o Te Reo, Te Ara Piko and the National Diploma in Reo Maori.

The students are aged 18 and up. Although the application is being designed specifically with the Level 5 students in mind, it will be useful to any adults wanting to get practice in using Maori sentence structures.

The potential end users are all familiar with using smart phones and have a moderate level of competency in their use.

# Technology

We were informed by our supervisor that Android Studio was to be the main development environment for the project.   
Android Studio's platform is fully supported by Google, which brings in Android tools such as debuggers, emulators, and wide documentation.   
In theory, this was meant to improve the development process and optimize our time building the application.

The layout editor on the software also allows for the ability to drag-and-drop Ul components, the preview of layouts on multiple screen configurations, and more.

Another advantage of using Android Studio is because it is an official tool of Android, so any updates to development features will automatically be made available.

For the purpose of using a database that does not require a server to be used, SQLite software, an open-sourced, lightweight, and standalone database which supports embedded relational database features will be used as the backend database for our application.   
Android Studio has a built-in SQLite database implementation and it is helpful for storing large amounts of application data.

Because SQLite is embedded within the code, this presents an issue of not being able to view and manage the data. To work around this issue, we downloaded a DB browser.

In order to access the data through a DB browser, we need to save the database SQL file in the application as a DB file. Then drag that file to the DB browser so we can see the data.   
This process needs to be run each time we have made changes to the database

For the repository and backup purposes, Whitireia's GitLab repository manager will be used.   
This enables us to work collaboratively and access the files of the project through a single source.   
This allowed for easier documentation, testing, and keeps track of the application's versioning.

(I’ve talked about the GitLab merge issue but am not entirely sure of what the issue was or how we fixed it)

During our use of Gitlab, occasionally there was an issue that after downloading another team member’s version of the application, it would break when we tried using it through Android studio. This issue seemed to be due to the merge feature of GitLab.

The hardware we used to develop the project are HP laptops provided by Whitireia which were already installed with Android Studio.   
We were also provided with two LG Nexus 5 smartphone devices which were to be used to test our application.

# Conclusion

In conclusion, our Android application has met the specifications of the scope within the allotted time frame that was given to us.

The client is pleased with the design and functionality of the app.

The main issues we faced, the process of teaching ourselves how to properly work with Android studio and implementing a database using SQLite.

We have set a solid foundation for the next team to continue working from, along with thorough documentation of features that need to be added or improved upon during the next iteration.