



College of Engineering, Construction and Living Sciences  
Bachelor of Information Technology  
IN721: Mobile Application Development  
Level 7, Credits 15  
**Practical 05: Companies**

## Assessment Overview

In this assessment, you will research & refactor the provided application's code so that you can switch between two **Google map** styles using a **menu** item. This assessment contributes **2%** towards your final mark in **IN721: Mobile Application Development**.

## Learning Outcomes

At the successful completion of this course, learners will be able to:

1. Implement & publish complete, non-trivial, industry-standard mobile applications following sound architectural & code-quality standards.
2. Identify relevant use cases for a mobile computing scenario & incorporate them into an effective user experience design.
3. Follow industry standard software engineering practice in the design of mobile applications.

## Assessment Table

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Practical	20%	2, 3	CRA	Cumulative
Project	80%	1, 2, 3	CRA	Cumulative

## Conditions of Assessment

You will complete this individual assessment inside & outside timetabled class time. This assessment will need to be completed by **Friday, 07 May 2021 at 5:00 PM**.

## Pass Criteria

This assessment is criterion-referenced (CRA) with a cumulative pass mark of **50%** over all assessments in **IN721: Mobile Application Development**.

## Authenticity

All parts of your submitted assessment must be completely your work & any references must be cited appropriately including, externally-sourced graphic elements. Provide your references in a **README.md** file. All media must be royalty free (or legally purchased) for educational use. Failure to do this will result in a mark of **zero** for this assessment.

## Policy on Submissions, Extensions, Resubmissions & Resits

The school's process concerning submissions, extensions, resubmissions & resits complies with **Otago Polytechnic** policies. Learners can view policies on the **Otago Polytechnic** website located at <https://www.op.ac.nz/about-us/governance-and-management/policies>.

## Submissions

You must submit all program files via **GitHub Classroom**. Here is the URL to the repository you will use for your submission – <https://classroom.github.com/a/VJIq7Ae0>. Create a new branch called **05-companies** from the **main** branch by running the command - **git checkout -b 05-companies**. This branch will be your development branch for this assessment. Once you have completed this assessment, create a pull request & assign the **GitHub** user **grayson-orr** to a reviewer. **Do not** merge your own pull request. Late submissions will incur a **10% penalty per day**, rolling over at **5:00 PM**.

## Extensions

Familiarise yourself with the assessment due date. If you need an extension, contact the course lecturer before the due date. If you require more than a week's extension, a medical certificate or support letter from your manager may be needed.

## Resubmissions

Learners may be requested to resubmit an assessment following a rework of part/s of the original assessment. Resubmissions are to be completed within a negotiable short time frame & usually must be completed within the timing of the course to which the assessment relates. Resubmissions will be available to learners who have made a genuine attempt at the first assessment opportunity & achieved a **D grade (40-49%)**. The maximum grade awarded for resubmission will be **C-**.

## Resits

Resits & reassessments are not applicable in **IN721: Mobile Application Development**.

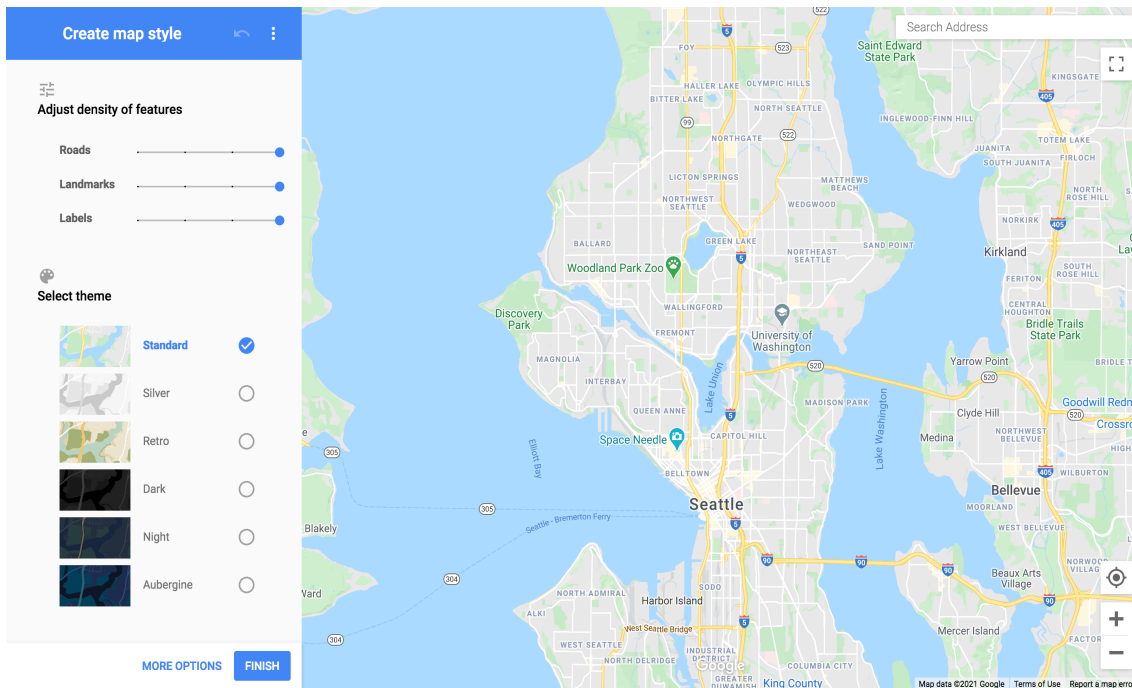
## Instructions - Learning Outcomes 2, 3

### Task One (2%):

In **res > raw**, you have been provided two **JSON** files called **map\_style\_dark.json** & **map\_style\_retro.json**. These files contain feature, element & styling data that you can apply to your **Google map**. If you wish to

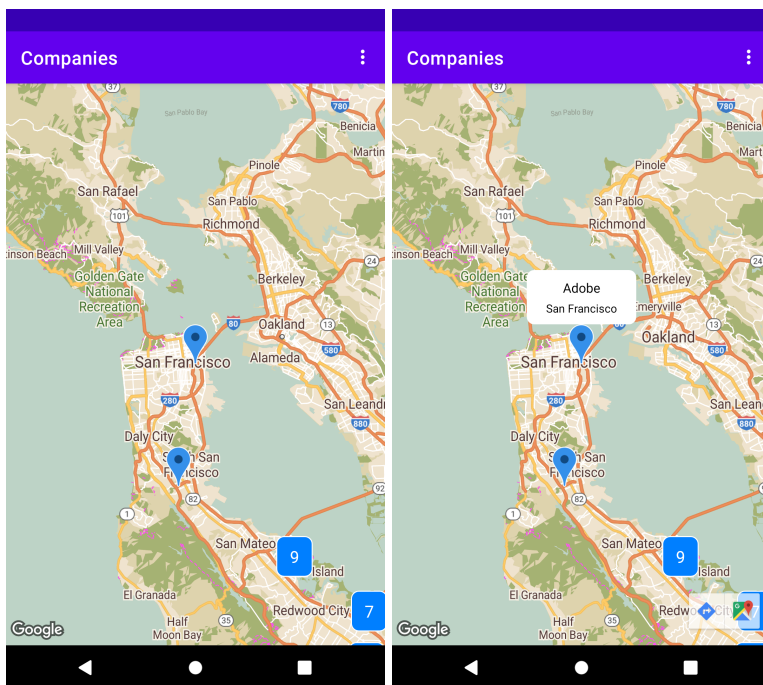
create different styles, refer to this link - <https://mapstyle.withgoogle.com>

You may be prompt with a window asking you to try the cloud-based maps style wizard. For this assessment, it is fine to use the old style wizard.



In the `onMapReady()` method, set the **Google map style** to `map_style_retro.json`.

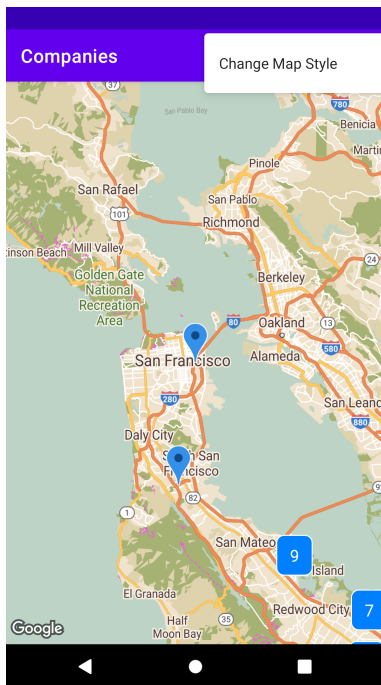
Run your application on either an **Android Emulator** or **connect device**.



In `MapsActivity.kt`, override the `onCreateOptionsMenu()` method. In this method, inflate your menu

resource define in `menu_map_style.xml` into the `Menu` provided in the callback.

Restart your application on either an **Android Emulator** or **connect device**. Click on the **vertical ellipsis** in the top-right hand corner of your screen.



Override the `onOptionsItemSelected()` method so that when you click on a menu item, i.e., **Change Map Style**, it switches between the retro & dark **Google map** styles.

Restart your application on either an **Android Emulator** or **connect device**. Again, click on the **vertical ellipsis**, then **Change Map Style**.

