

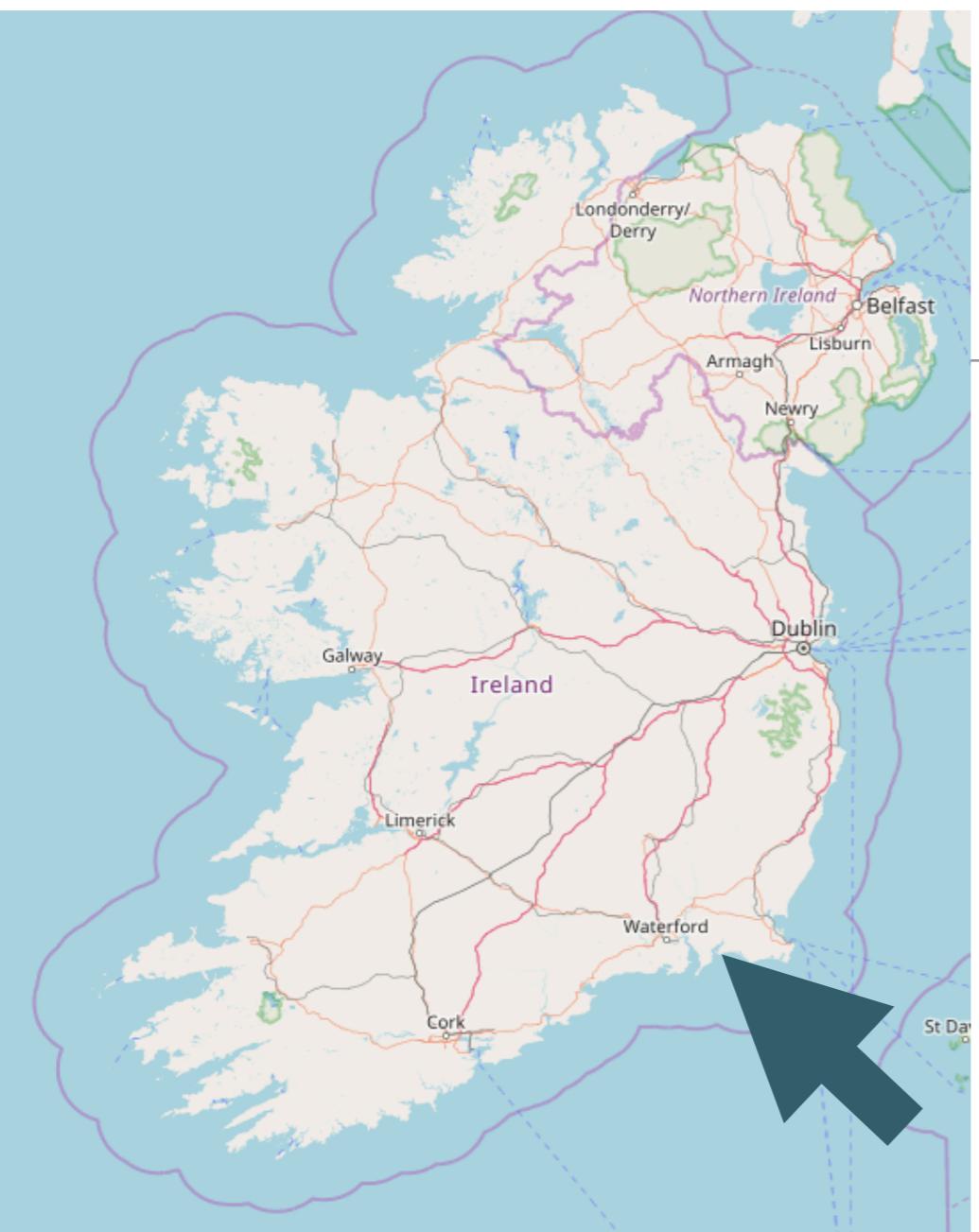


Waterford Institute *of* Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE



Eamonn de Leastar
edeleastar@wit.ie

Waterford



Waterford (from Old Norse *Veðrafjørðr*, meaning "ram (wether) fjord", Irish: *Port Láirge*) is a city in Ireland. It is in the South-East Region, Ireland and is part of the province of Munster. The city is situated at the head of Waterford Harbour. It is the oldest^{[2][3]} and the fifth most populous city in the Republic of Ireland. It is the eighth most populous city on the island of Ireland.

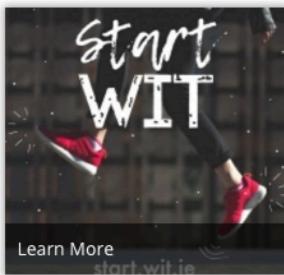


WIT A World of Imagination

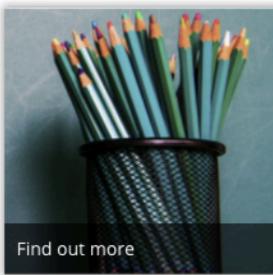
IMAGINE WIT - VISIT OUR CAO HUB

Advice and information to help you research your CAO options

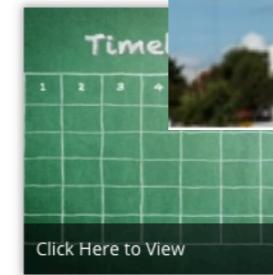
START WIT - REGISTRATION & ORIENTATION



PART TIME COURSES



ACADEMIC TIME SEMESTER 1



Waterford Institute of Technology (WIT) is a university-level institution in the South-East of Ireland with over 10,000 students and 1,000 staff.

WIT offers tuition and research programmes in various areas from Higher Certificate to Degree to PhD.

The screenshot shows a web browser window with the URL https://wit-hdip-comp-sci-2018.github.io. The page title is "Higher Diploma in Computer Science 2018". It features a navigation bar with icons for search, help, and user profile. Below the title is a subtitle "Department of Computing & Mathematics, WIT". There are three main sections: "Programme Introduction" (with a purple book icon), "Schedules & Handbooks" (with a blue compass icon), and "Learning to Learn Online" (with a blue graduation cap icon). Each section has a list of resources below it. At the bottom, there are four tabs: "Programming Fundamentals", "Web Development", "ICT Skills", and "June Onsite". A footer bar at the bottom contains the website URL and a blue circular logo.



ABOUT » PROJECTS RESEAR

Home » About » People » Eamonn de Leastar

Eamonn de Leastar , Board Member



Eamonn de Leastar
Board Member
Ph: +353 (0)51 302 965
Email: edeleastar@tssg.org

Personal Summary

Eamonn de Leastar is a co-founder and Chief Technical Officer of the Software Systems Group (TSSG).

After graduation in 1982, he taught computer science at Dundalk Institute of Technology where he was responsible for a range of new curricula within this sector. He then moved into industry, gaining significant experience in senior programmer, analyst, quality assurance and project leadership roles. This included periods at Wordstar International, developing some of the first word processors on the then newly established PC standard and at Contel Business Systems



2017

Building Modern Applications & Services with Node.js

Course Mission: *Transfer a set of foundation skills to enable you to design, build, secure, test and deploy a modern web application + API.*



<https://wit-oth-regensburg-2017-dmas.github.io>

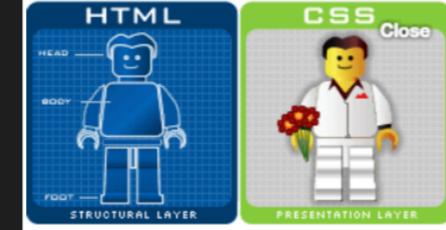
- [!\[\]\(313b3b3c8a0c38ad35f0f4cceb5f9abb_img.jpg\) 1: Introduction](#)
- [!\[\]\(01fb5058363dcb3bfe1ee1159e9c248e_img.jpg\) Course Overview](#)
- [!\[\]\(54f0ad8b6afbf069171bcb3f2d838cc1_img.jpg\) Assessment](#)
- [!\[\]\(9e65eb946a0821820bf150eaecad484c_img.jpg\) Overview of Course](#)
- [!\[\]\(39de8e92d71816f94aa94a39563f909f_img.jpg\) 1: HTML & CSS Revision](#)
 - [!\[\]\(fac943d56447ae39baf4c6cb02da634d_img.jpg\) 1.1: HTML Templates](#)
 - [!\[\]\(c89ae5d41e0aa2f58d7ffc6342362147_img.jpg\) 1.2: CSS Frameworks](#)
- [!\[\]\(5f2dfe8ea2fcdf131acae7d8bf5cb0f0_img.jpg\) 2: JavaScript Review](#)
 - [!\[\]\(b2a125222f62a0e819eaaa961d2a1086_img.jpg\) JS Introduction](#)
 - [!\[\]\(a0d47a0f54b7880ec05b83106e47b581_img.jpg\) Variables](#)
 - [!\[\]\(8485711a8e03ae764209496eab2b7a7c_img.jpg\) Boolean Logic](#)
 - [!\[\]\(2d9568d9f568be2271ef52e0b3b963fb_img.jpg\) Const, Let & Objects](#)
 - [!\[\]\(34c27c27a19774c7da18c4eecf73fda4_img.jpg\) Arrays: Basics](#)
 - [!\[\]\(35db45727c9e6ac4fb575c0c2eb495fe_img.jpg\) Array Methods](#)
 - [!\[\]\(101fcd90471b7f288030b7fff5aa1455_img.jpg\) Array Iteration](#)
 - [!\[\]\(1671cbe7acdf30b73d2452b9a006a751_img.jpg\) Arrays of Strings](#)
 - [!\[\]\(ee6a2e9056482db5e97a86a23ea5ccc0_img.jpg\) Arrays of Objects](#)
 - [!\[\]\(9e952f6c675ae00ed645f450d8117d20_img.jpg\) ES Next](#)
 - [!\[\]\(d3b5e33e11068074c3a4f8d436f6a0cf_img.jpg\) Lab-2.1 JS Intro](#)
 - [!\[\]\(7bc3619b9871d476cf93d9b5b1eefb75_img.jpg\) Lab-2.2 JS Basics](#)
 - [!\[\]\(1eae85e9414d55fc698f85c550672108_img.jpg\) Javascript Basics](#)
 - [!\[\]\(73867a47cc0c458371c45b38271a8428_img.jpg\) Javascript Arrays](#)
 - [!\[\]\(84815dca048c033cbdf281052dc1f949_img.jpg\) Lab Preview](#)
- [!\[\]\(2a1b1291c2eb47b5f2aea8bb4adf83df_img.jpg\) 3: DOM & JQuery](#)
 - [!\[\]\(4a19322ce9f4bb429eda09fe410104ed_img.jpg\) JS Browser Tools](#)
 - [!\[\]\(bf1d6bea138ae3c53db71ca8f1bb09c0_img.jpg\) DOM](#)
 - [!\[\]\(cd1a5b0cda4faefebfd64a6b5e308b84_img.jpg\) JQuery](#)
 - [!\[\]\(8f8f5f16cd514b59b25886e6a673f2e9_img.jpg\) Lab-3 JQuery](#)
 - [!\[\]\(b7c04e69d11128989c81affac5fe0577_img.jpg\) DOM & JQuery](#)
- [!\[\]\(7fc89d05f083f21b2332b4696653e69b_img.jpg\) 4: Ajax & APIs](#)
 - [!\[\]\(d00f4b75f76d242d55caaa34f1a041f4_img.jpg\) ES Next](#)
 - [!\[\]\(02ece327f6e993744e304b289cb87d79_img.jpg\) Ajax Introduction](#)
 - [!\[\]\(e83692aa455e2dd4f661ad36628567df_img.jpg\) APIs in Ajax](#)

Building Modern Web Applications & Services

Eamonn de Leistar, WIT for OTH Regensburg



1: HTML & CSS Revision



Review of the fundamentals of HTML Templating + the Semantic UI CSS Framework

2: JavaScript Review



Re-introduction to Javascript. Review language structure and usage.

3: DOM & JQuery

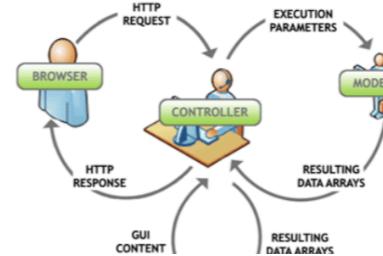


Review the nature & structure of the DOM. Basics of JQuery library

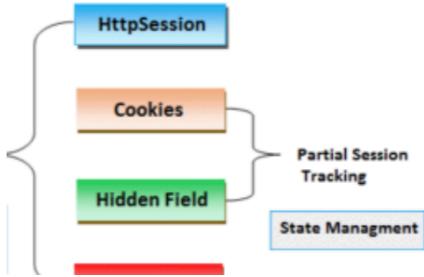
5: Hapi Applications



6: Views



7: Sessions

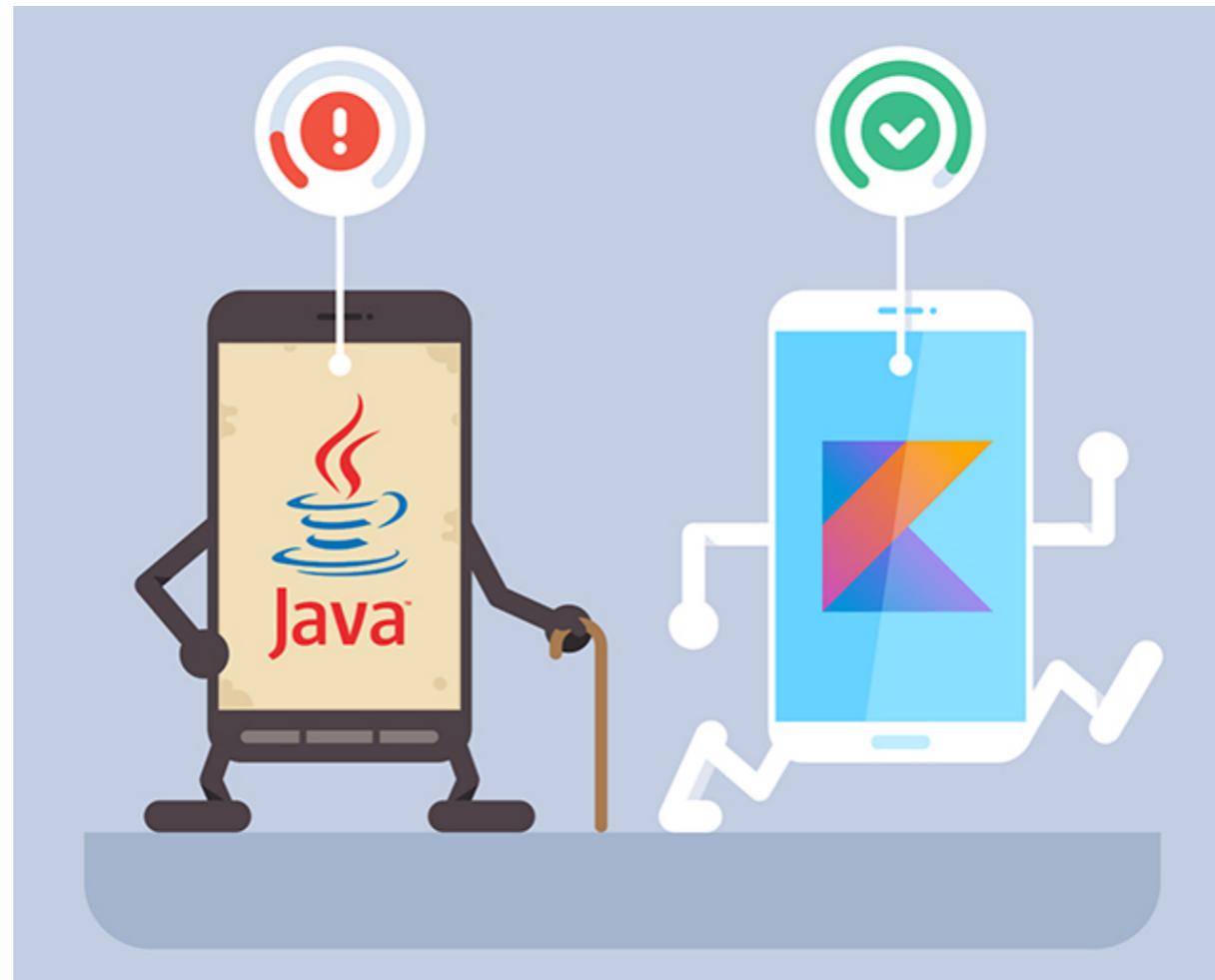


<https://wit-oth-regensburg-2017-dmas.github.io>

2018

Android Programming with Kotlin

Course Mission: *Accelerate into Android App development leveraging the power & expressiveness of Kotlin*



Introducing Kotlin

- Talk Title
- Programming Language
- Convergence
- Kotlin: Background
- Kotlin: Characteristics
- J2K Cheatsheet: Variables
- J2K Cheatsheet: Control Structures

Android Foundations

- Kotlin: Data classes & Lambdas
- Kotlin: Types
- Android: Foundation
- Android: Application Object
- Lab-01

Adapters & Models

- Recycler View + Adapters
- Memory Store
- Kotlin Variables & Functions
- Lab-02

Listeners & Parcelable

- Adapter + Listener
- Parcelable
- Kotlin Control Flow
- Lab-03

Images & Architecture

- Lab 03 Exercise Solutions
- Images
- Architecture
- Lab-04

GoogleMap Activity

- Map Setup
- Map Models

Android Programming with Kotlin

Eamonn de Leastar, WIT for OTH Regensburg



Android Foundations



Kotlin Data classes + Lambdas.
Android Project Structure.
Layouts & Resources. Activities
and Application classes

Adapters & Models



Recycler view and adapters.
Role of Models in an Android
Application. Kotlin Functions.

Listeners & Parcelable

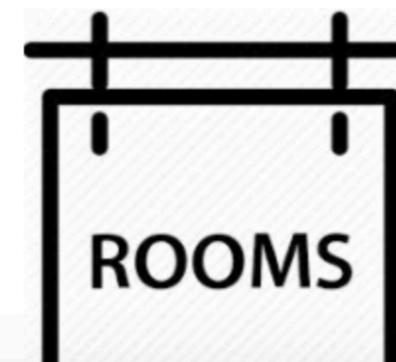


The role of adapters &
listeners. The Parcelable type
in Kotlin. The cards widgit.
Kotlin control flow

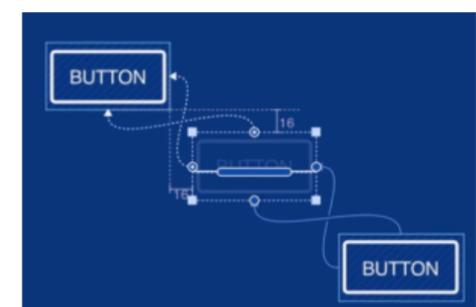
GoogleMap Activity



Database Rooms



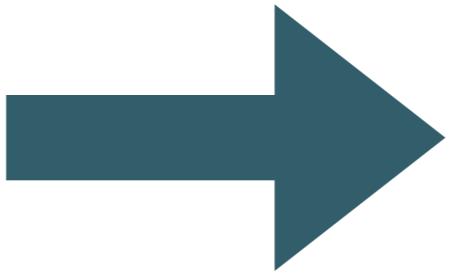
Map & Landscape



“Building Android applications is both exciting and challenging. The diversity of the applications one can build is fascinating, however their complexity can be overwhelming. Kotlin, a new language fully supported by google, dramatically enhances the power and simplicity of the programmers task.”



Kotlin is:



Modern

Secure

Typesafe

Expressive

Concise

Introducing Kotlin



Place Kotlin in the context of modern programming Languages. Explore the characteristics of the language and its fundamental constructs.

Android Foundations



Kotlin Data classes + Lambdas. Android Project Structure. Layouts & Resources. Activities and Application classes

online
pre-
course

Course Structure

Adapters & Models



Recycler view and adapters. Role of Models in an Android Application. Kotlin Functions.

Listeners & Parcelable



The role of adapters & listeners. The Parcelable type in Kotlin. The cards widgit. Kotlin control flow

Images & Architecture



ImageViewer and ImagePicker. Managing images using the Storage Access Framework. Application Architecture

GoogleMap Activity



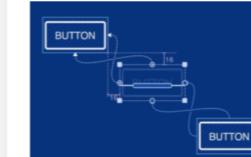
Introducing Maps into an application. Keys & Permissions. Camera, location and options. Introducing Markers.

Database Rooms



Android Architecture Components. The Room framework. Creating and updating a simple database.

Map & Landscape



Managing embedded maps. Initialisation and manipulation. Managing a landscape perspective.

Markers & Location



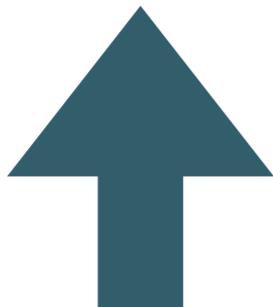
Configure Markers and listen for marker events

Location Tracking

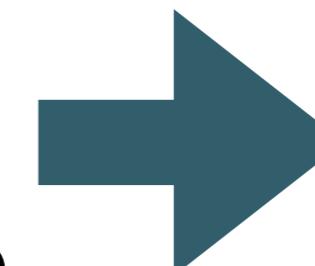


Track locations in real time. Update UI in this context. Rationalise approach to managing component versions.

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programme



online
post-
course



Firebase Authentication



Introducing Firebase Authentication, Database and Storage services. Utilising the Authentication service

Firebase Database



Replacing Rooms with Firebase Database services. Moving images from the Storage Access Framework to Firebase Storage

Introducing Kotlin



Place Kotlin in the context of modern programming Languages. Explore the characteristics of the language and its fundamentals constructs.

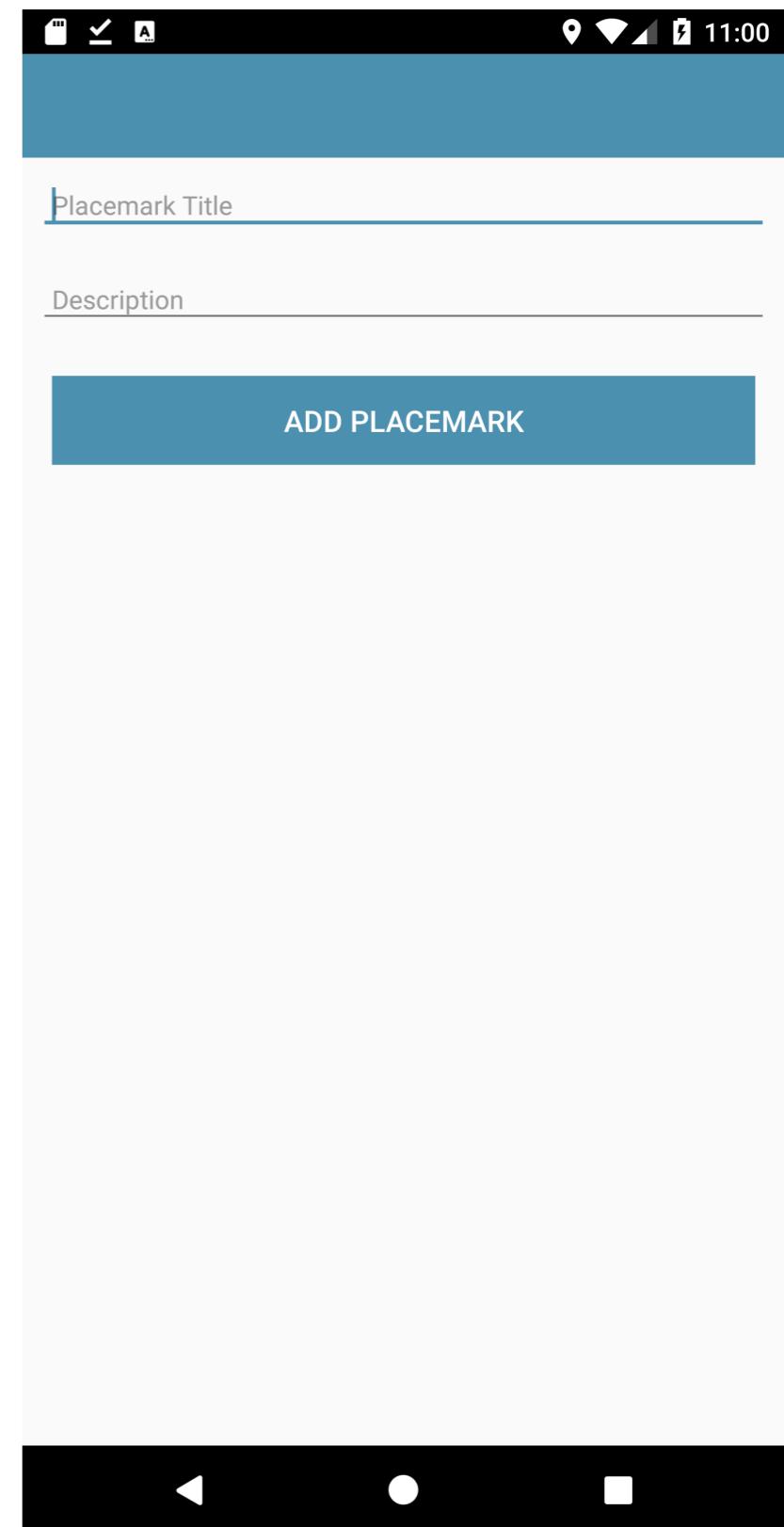
Assumptions:
Intermediate level Java or closely related language skills

Accelerate into the fundamentals of Kotlin we need

Placemark



Single Activity Android Application



Accepts:

- Placemark Name
- Placemark Description

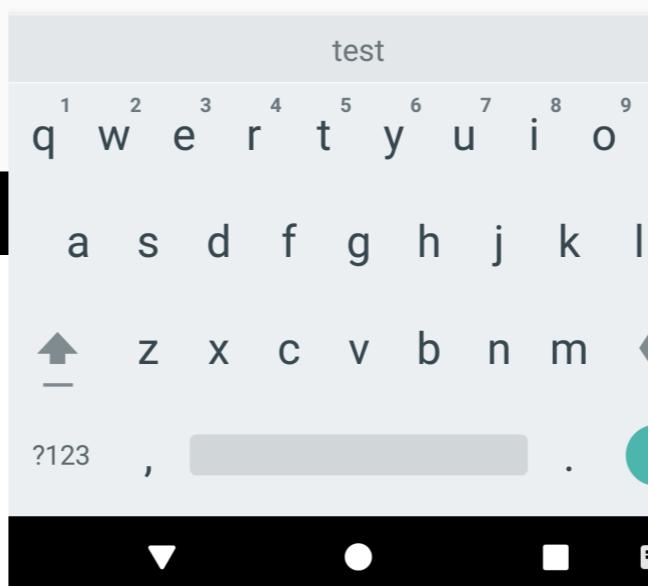


Add placemark
List all added placemark

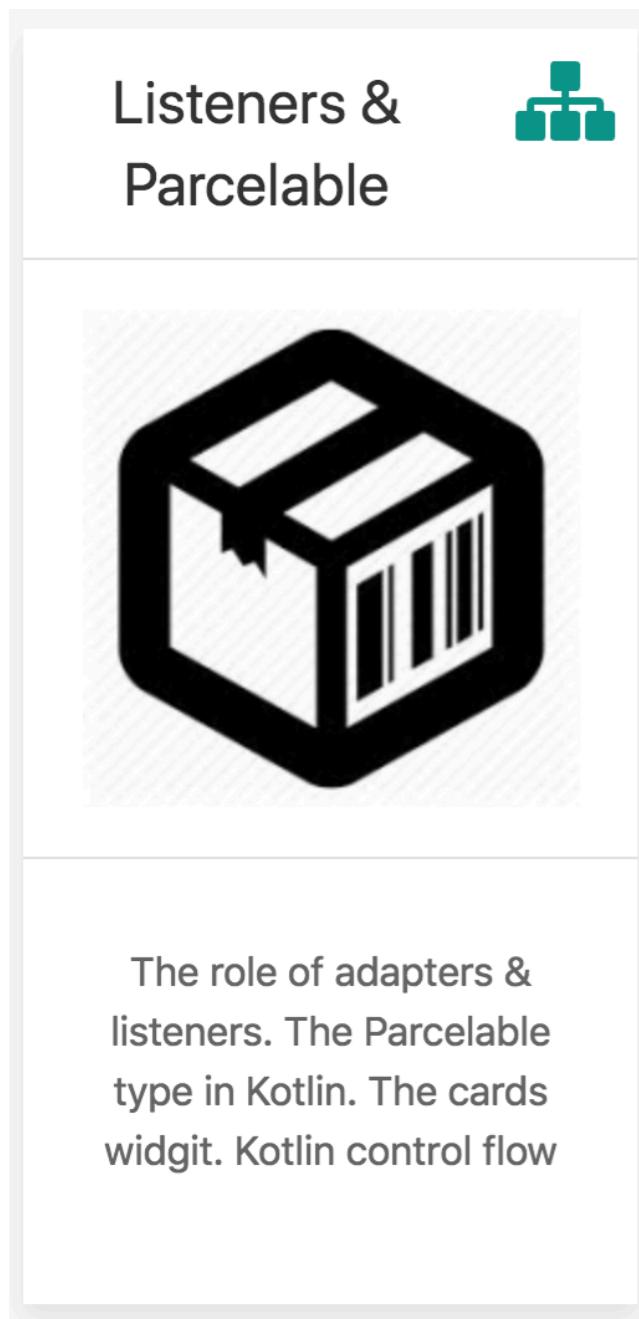
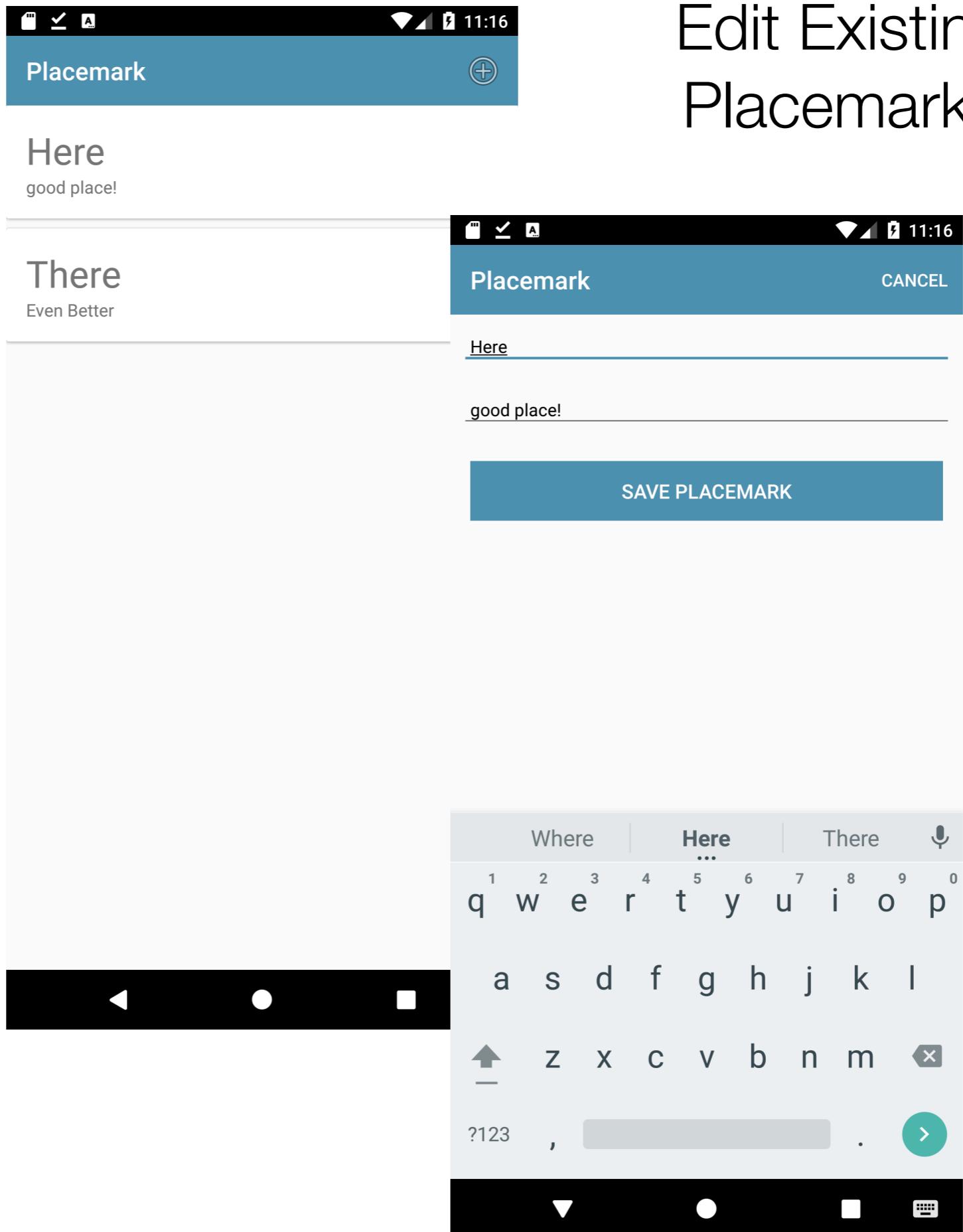
Adapters & Models



Recycler view and adapters.
Role of Models in an
Android Application. Kotlin
Functions.



Edit Existing Placemarks



Include Images in Placemarks

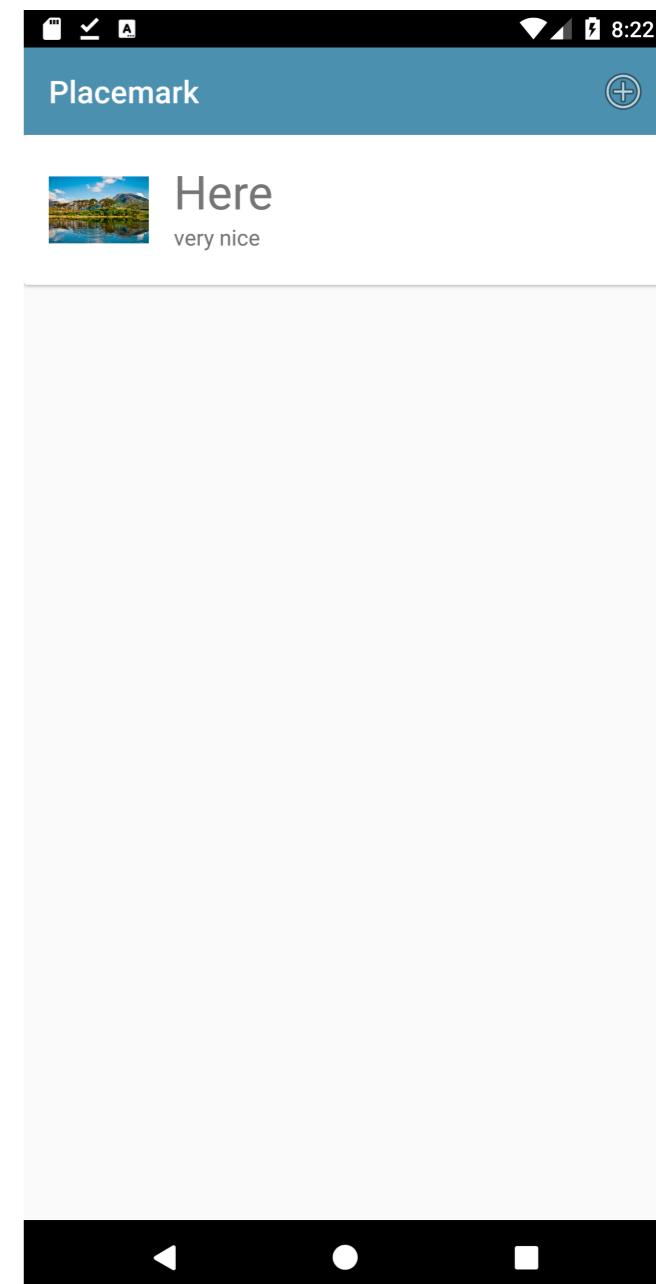
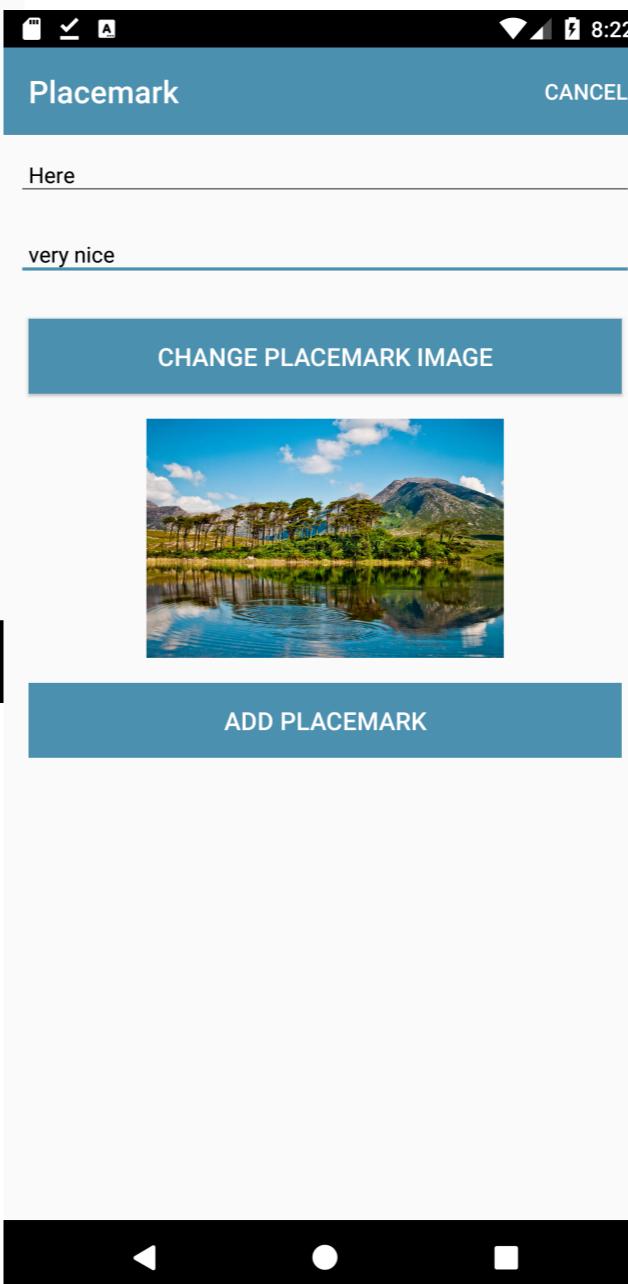
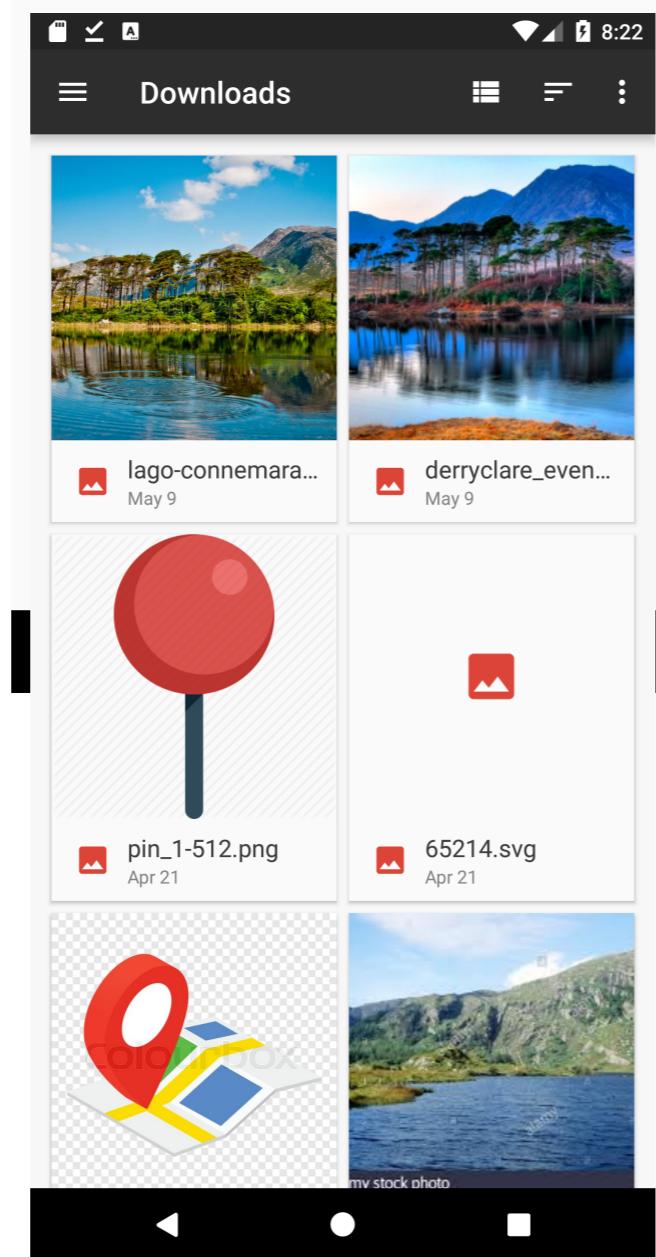
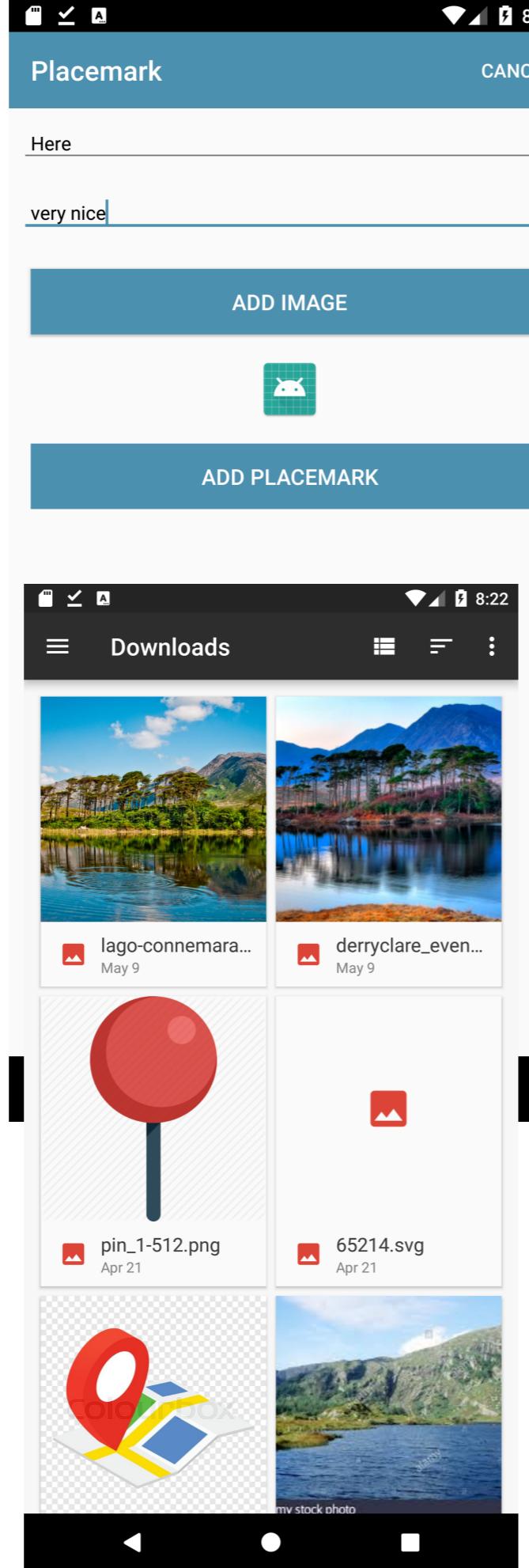
Images & Architecture



CHANGE PLACEMARK IMAGE



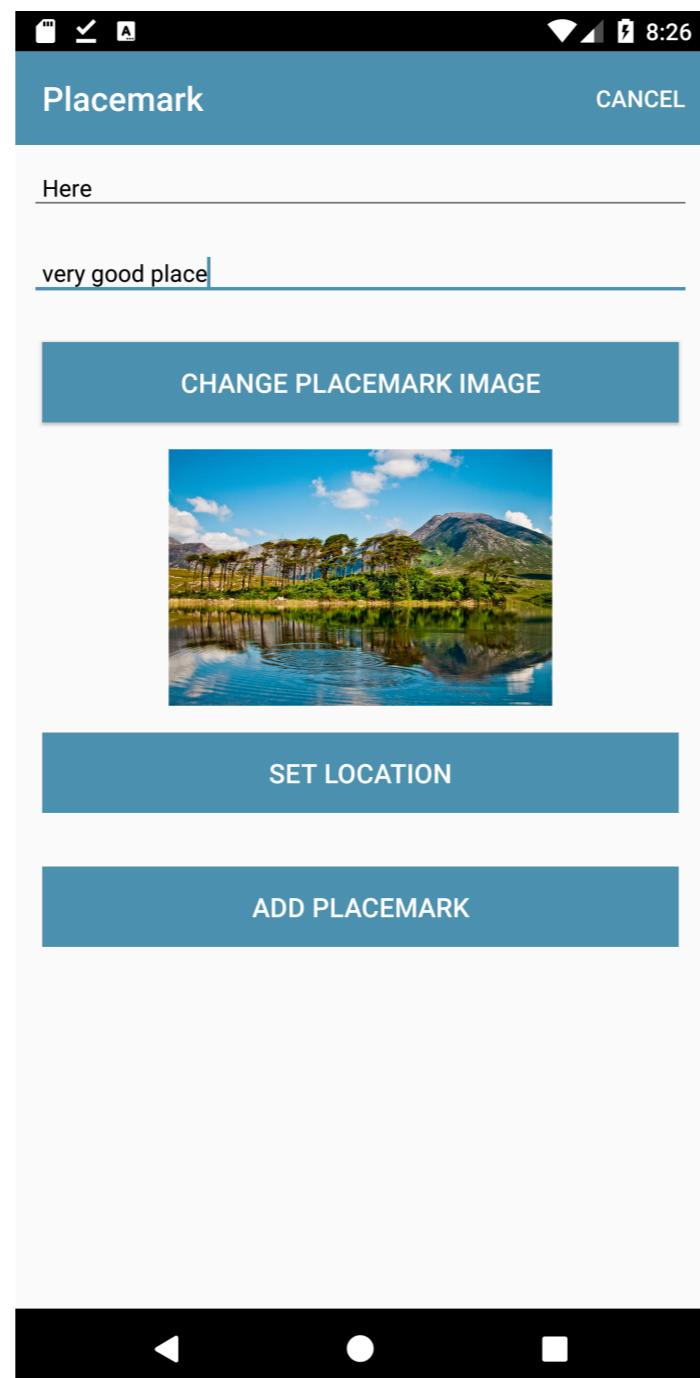
ImageViewer and
ImagePicker. Managing
images using the Storage
Access Framework.
Application Architecture



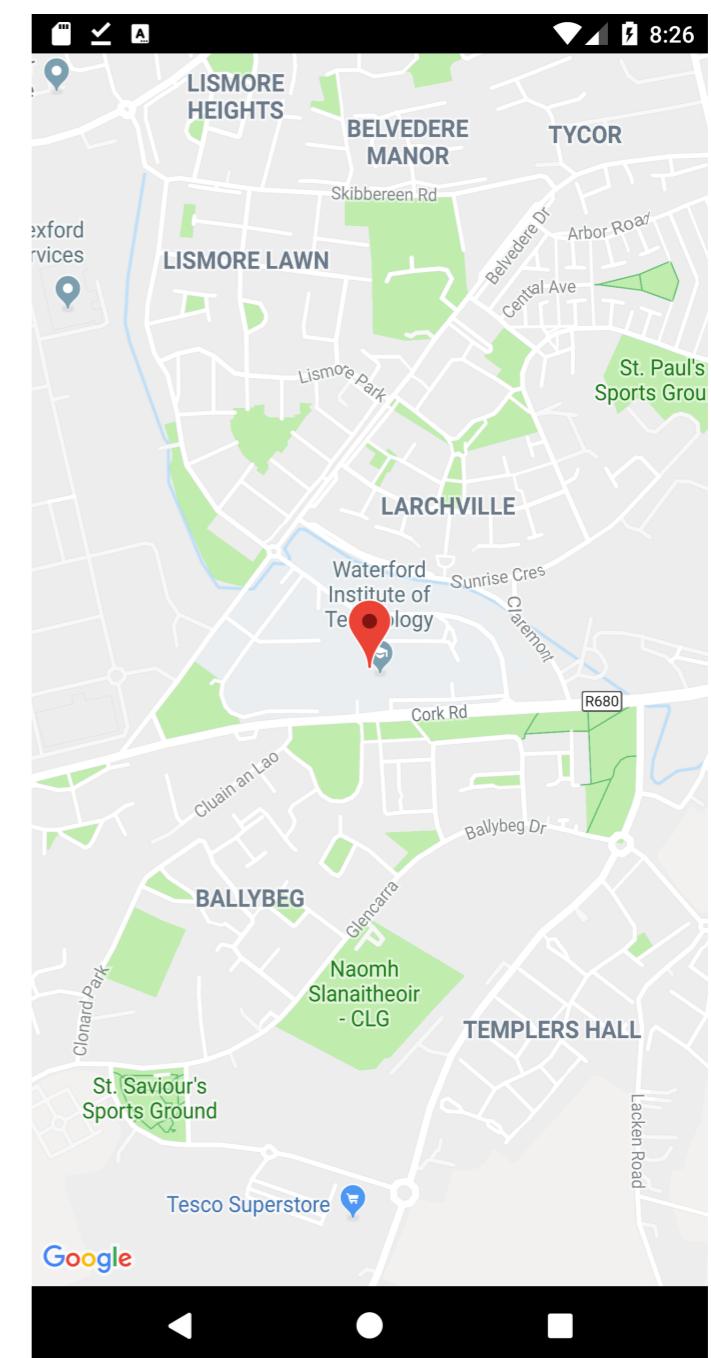
GoogleMap Activity



Introducing Maps into an application. Keys & Permissions. Camera, location and options.
Introducing Markers.

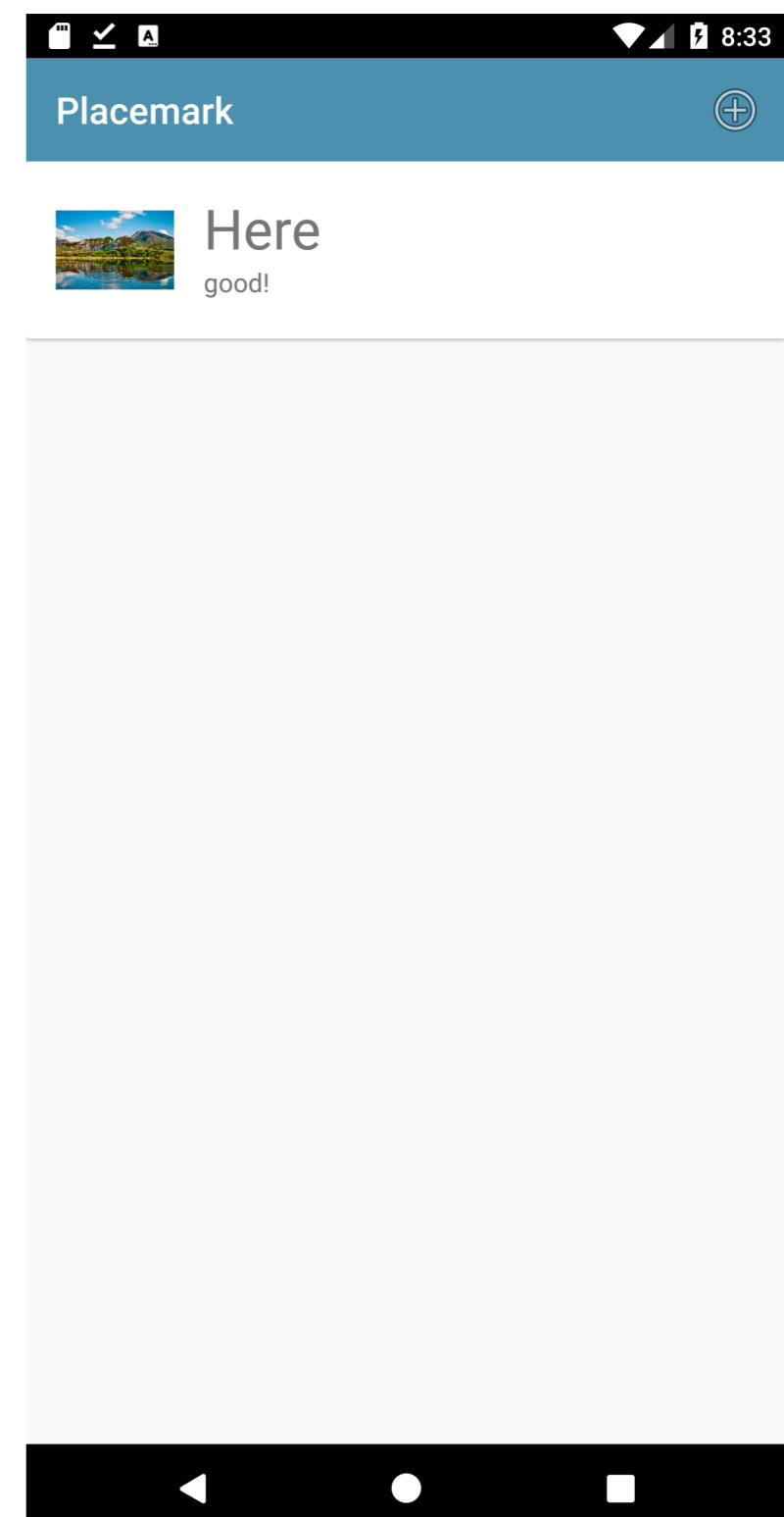
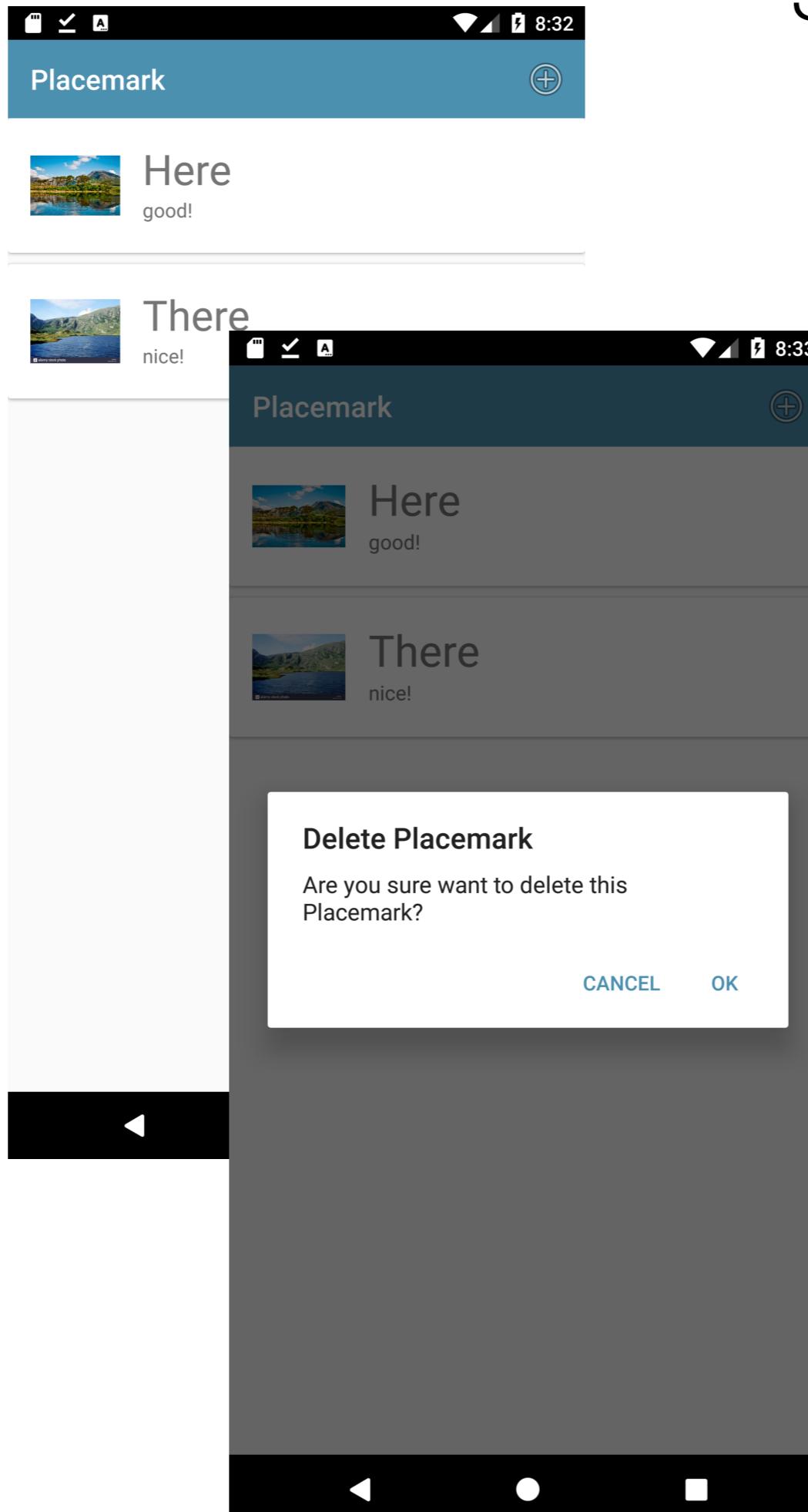
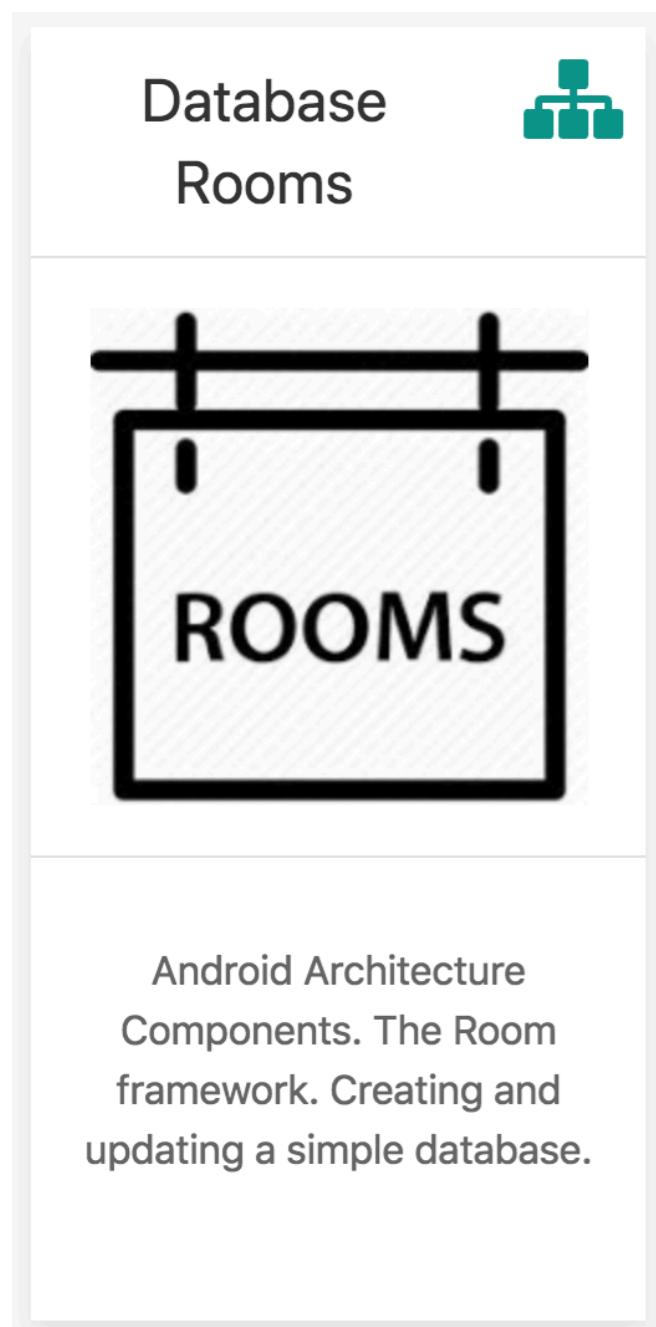


Choose a Location for the Placemark



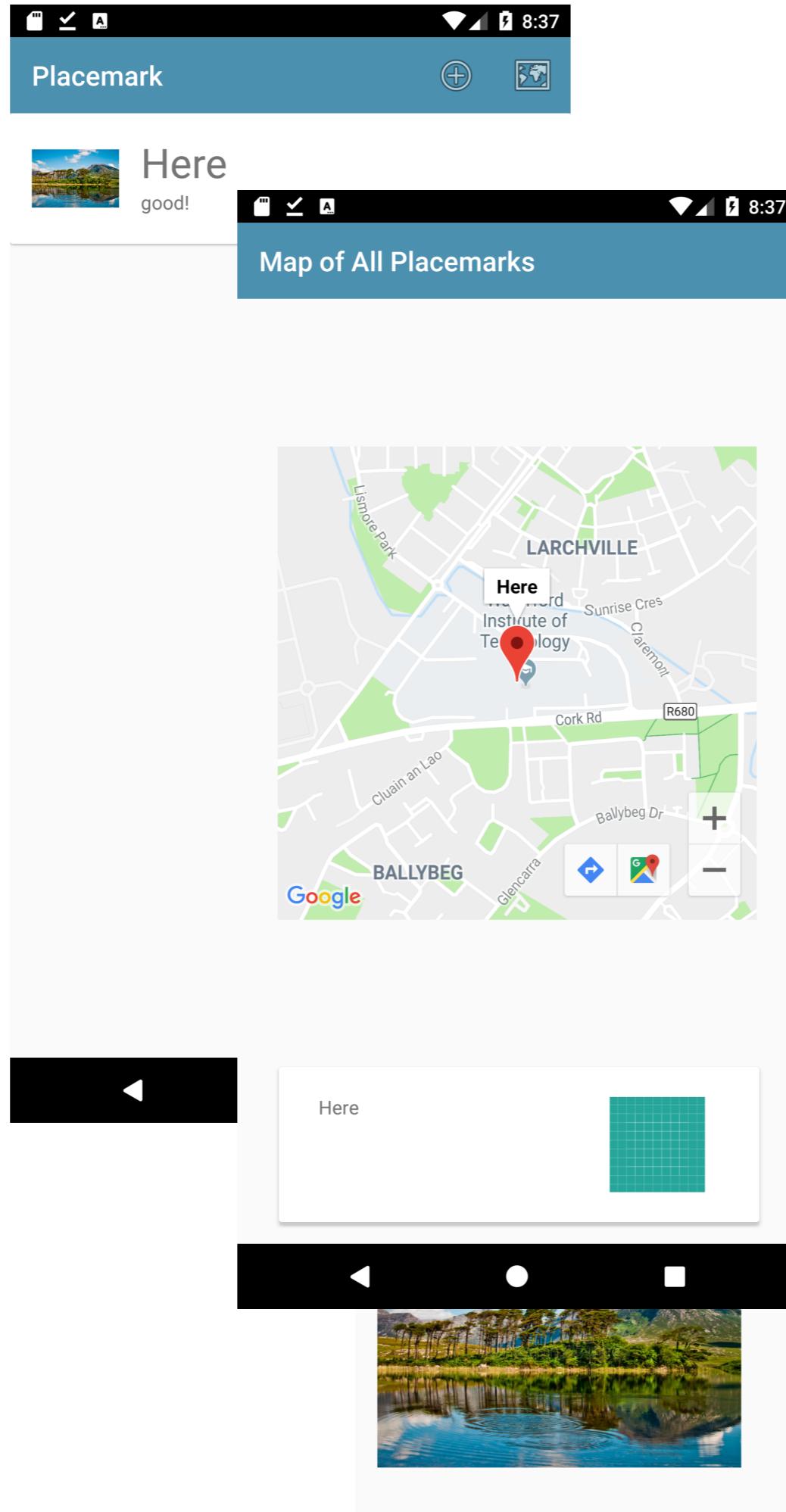
Store Placemark in Database

Delete Placemarks



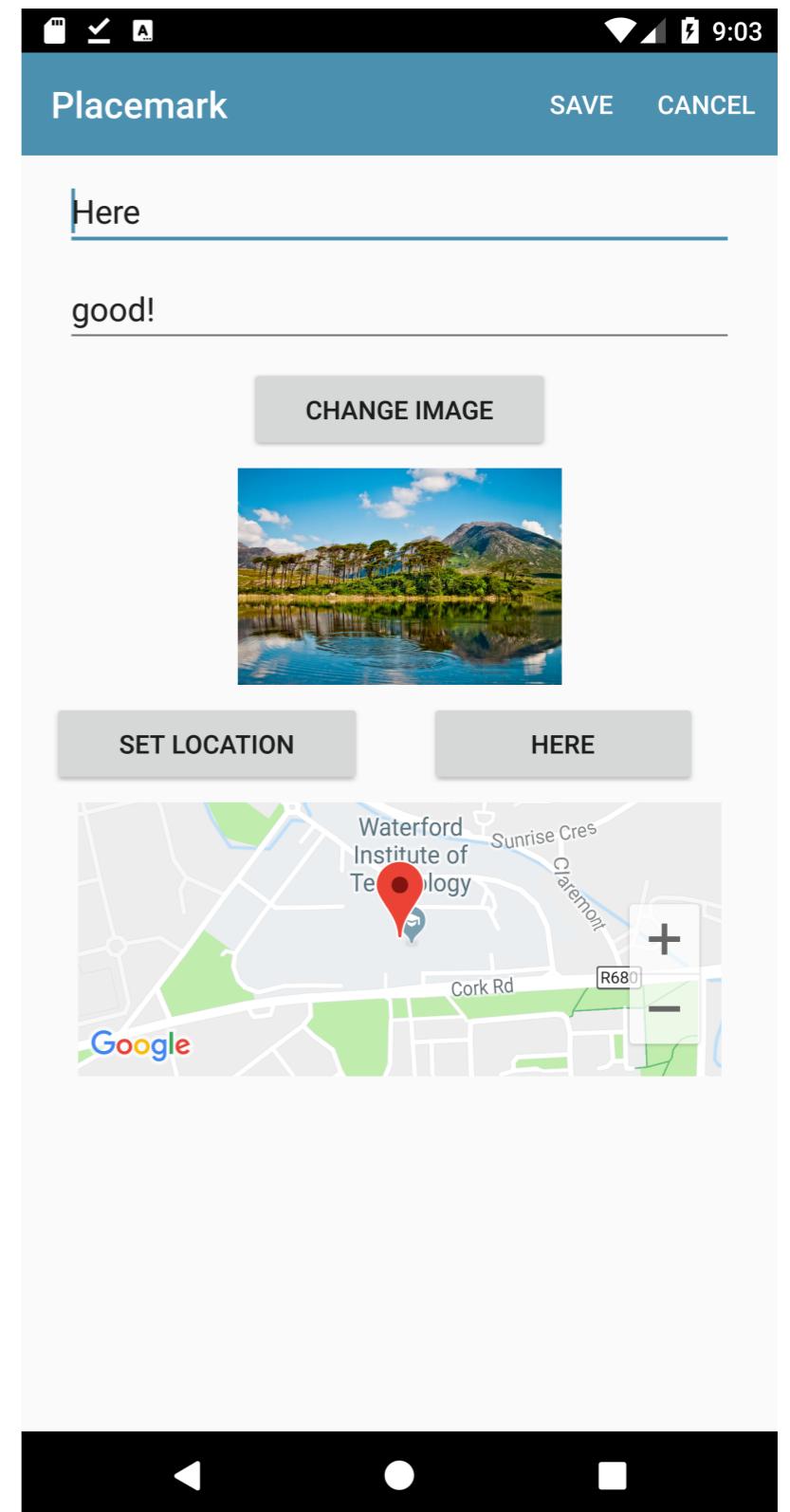
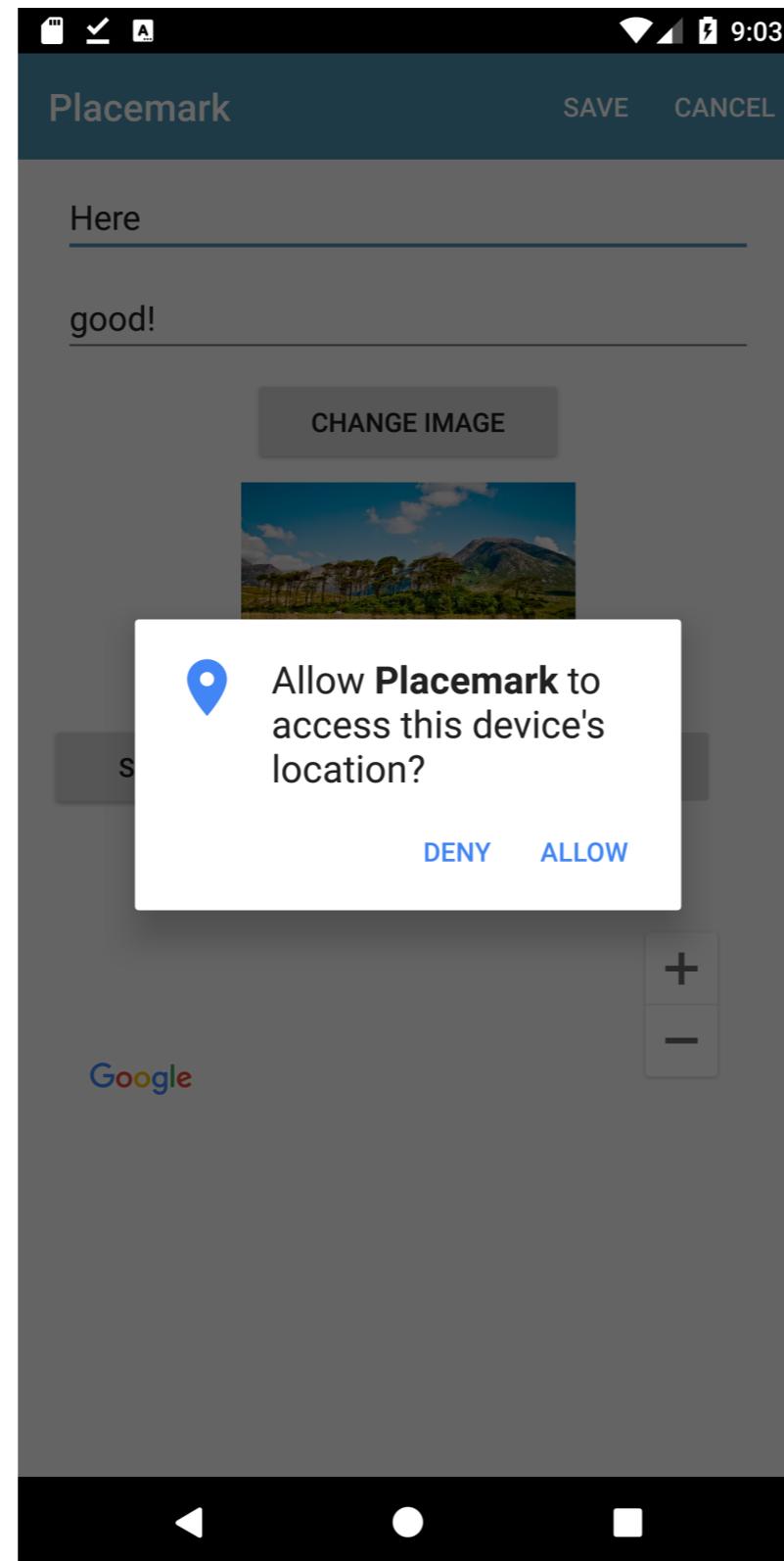
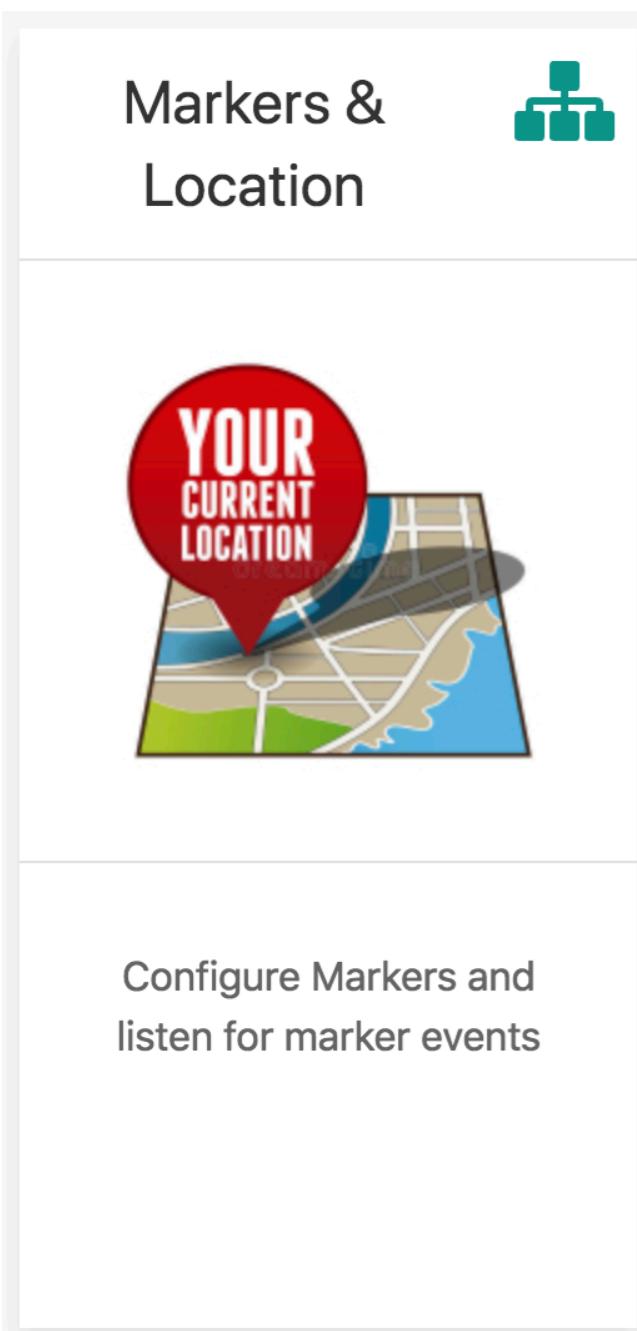
Map & Landscape

Managing embedded maps.
Initialisation and manipulation. Managing a landscape perspective.



Display Map of all placemarks

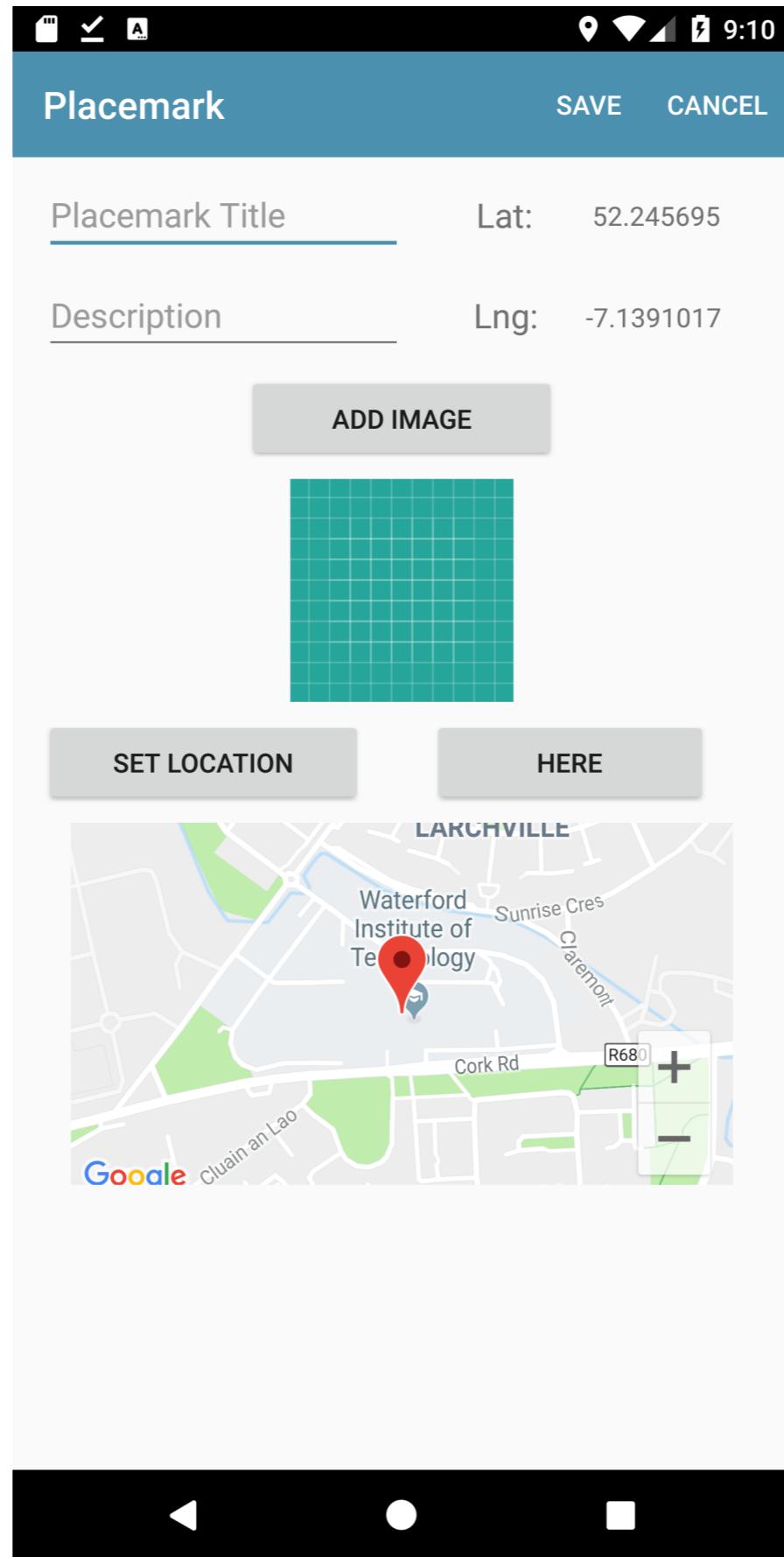
Support current location



Location Tracking

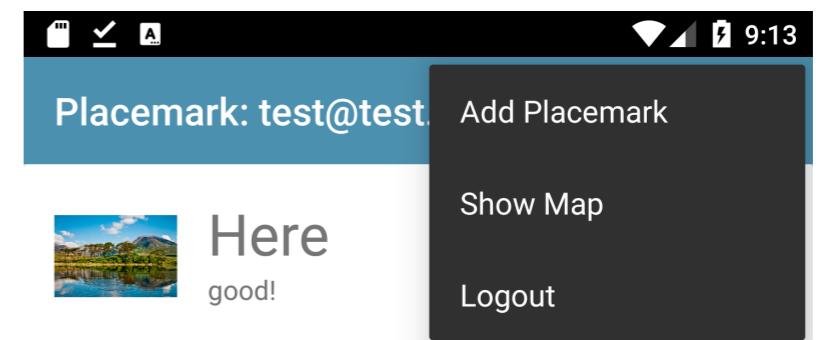
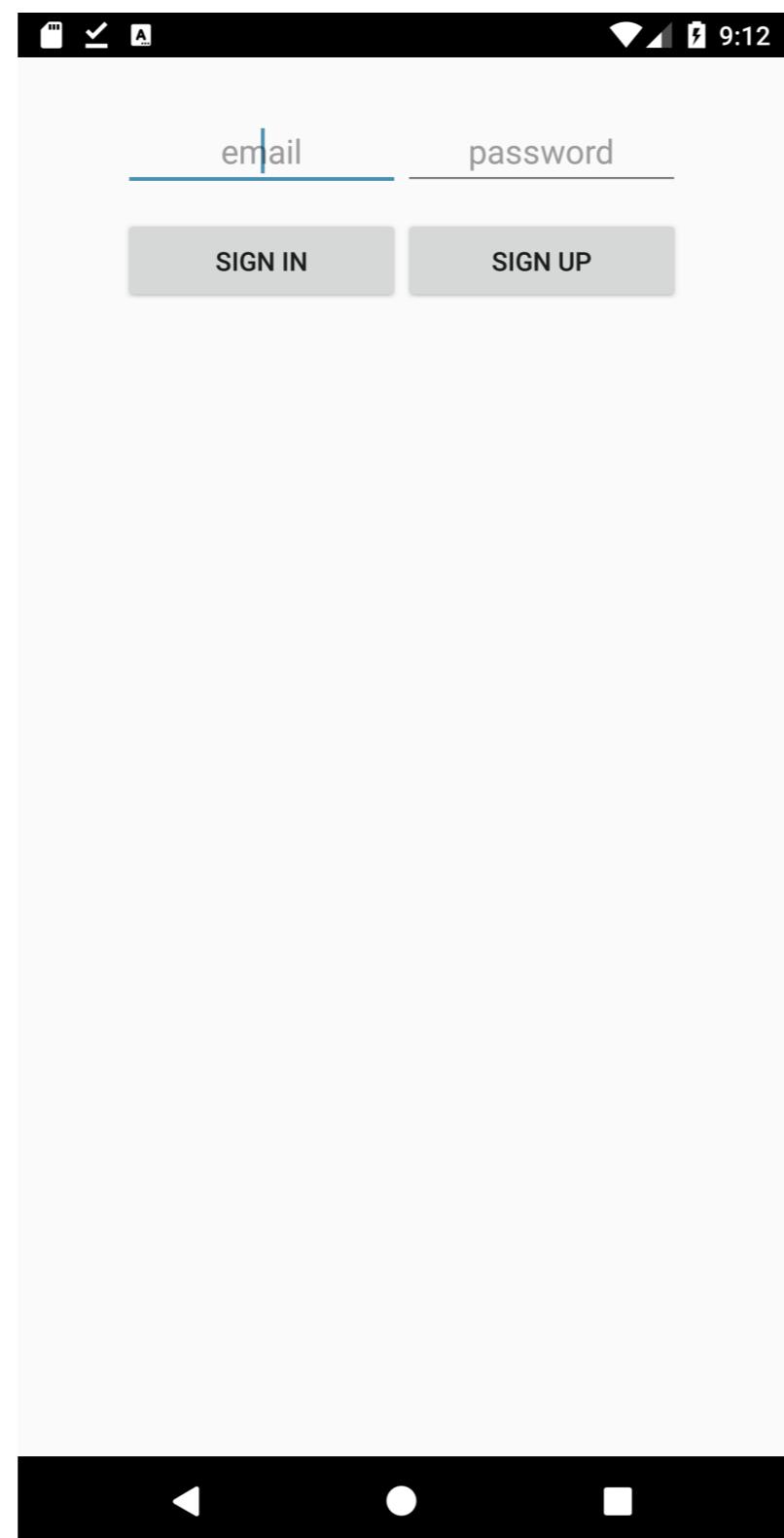
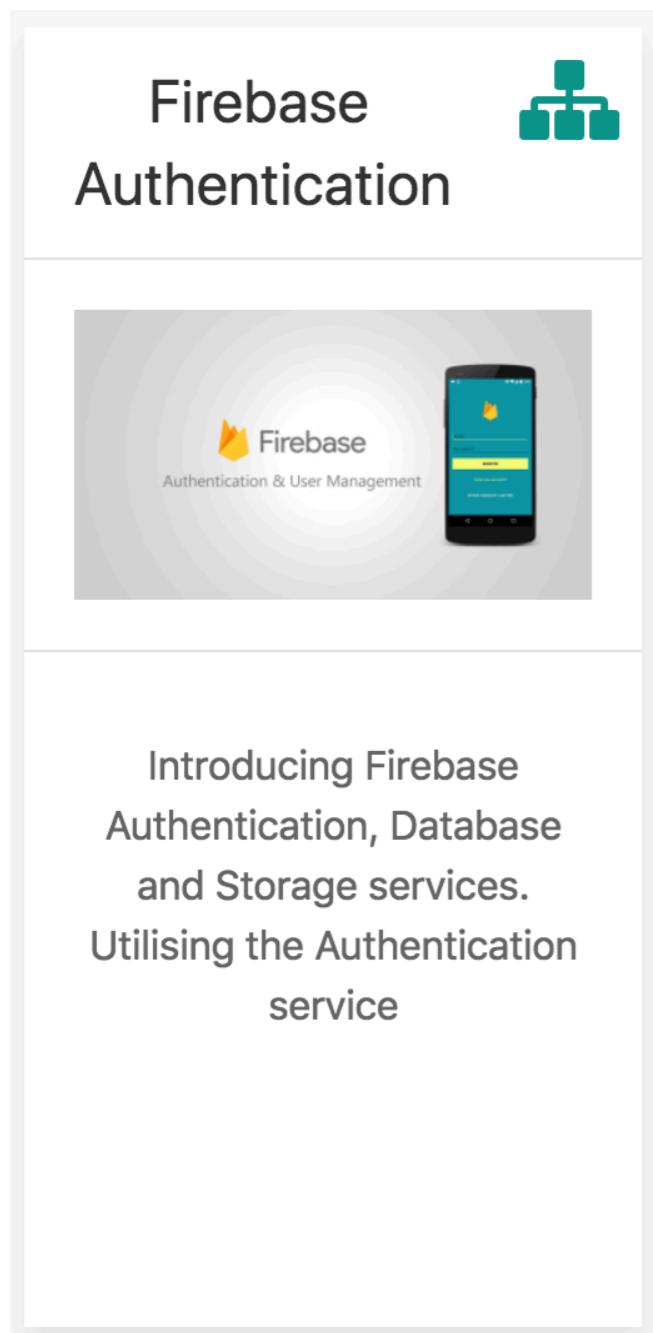


Track locations in real time.
Update UI in this context.
Rationalise approach to
managing component
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Track current
Location

Authentication



Firebase Database



Replacing Rooms with
Firebase Database services.
Moving images from the
Storage Access Framework
to Firebase Storage

Cloud Database

Assessments

Single Project - submitted at
end of semester (late
December 2017)

An Android Application

Assignments



Specifications, grading
schemes and calendar of
assignments for the
module

Introducing Kotlin

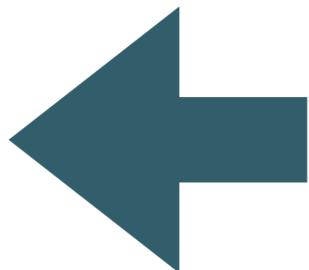


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online
pre-
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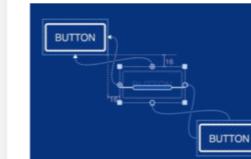
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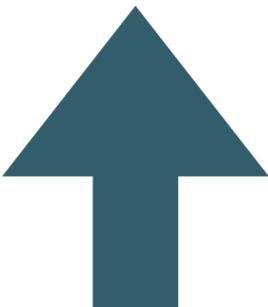
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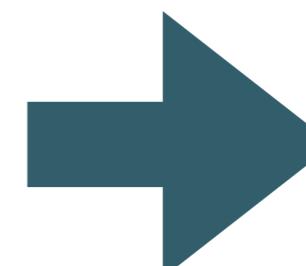


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