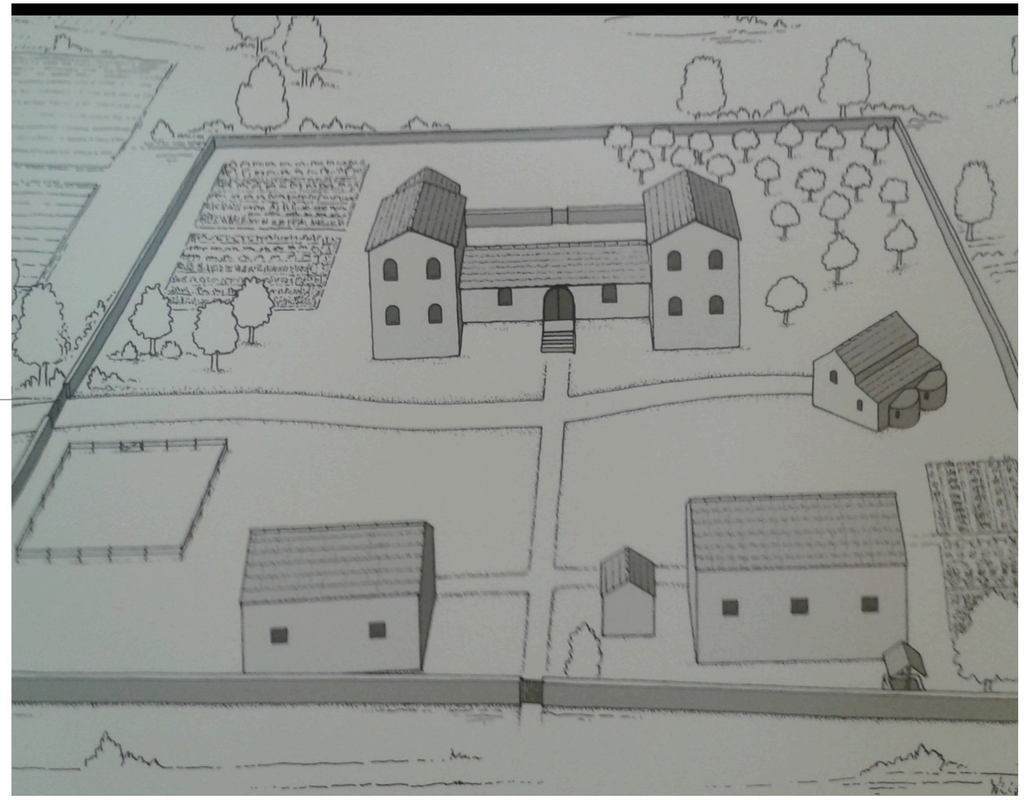
Project: Archaeological Fieldwork V2



Inspiration

Atlas of Hillforts of Britain and Ireland

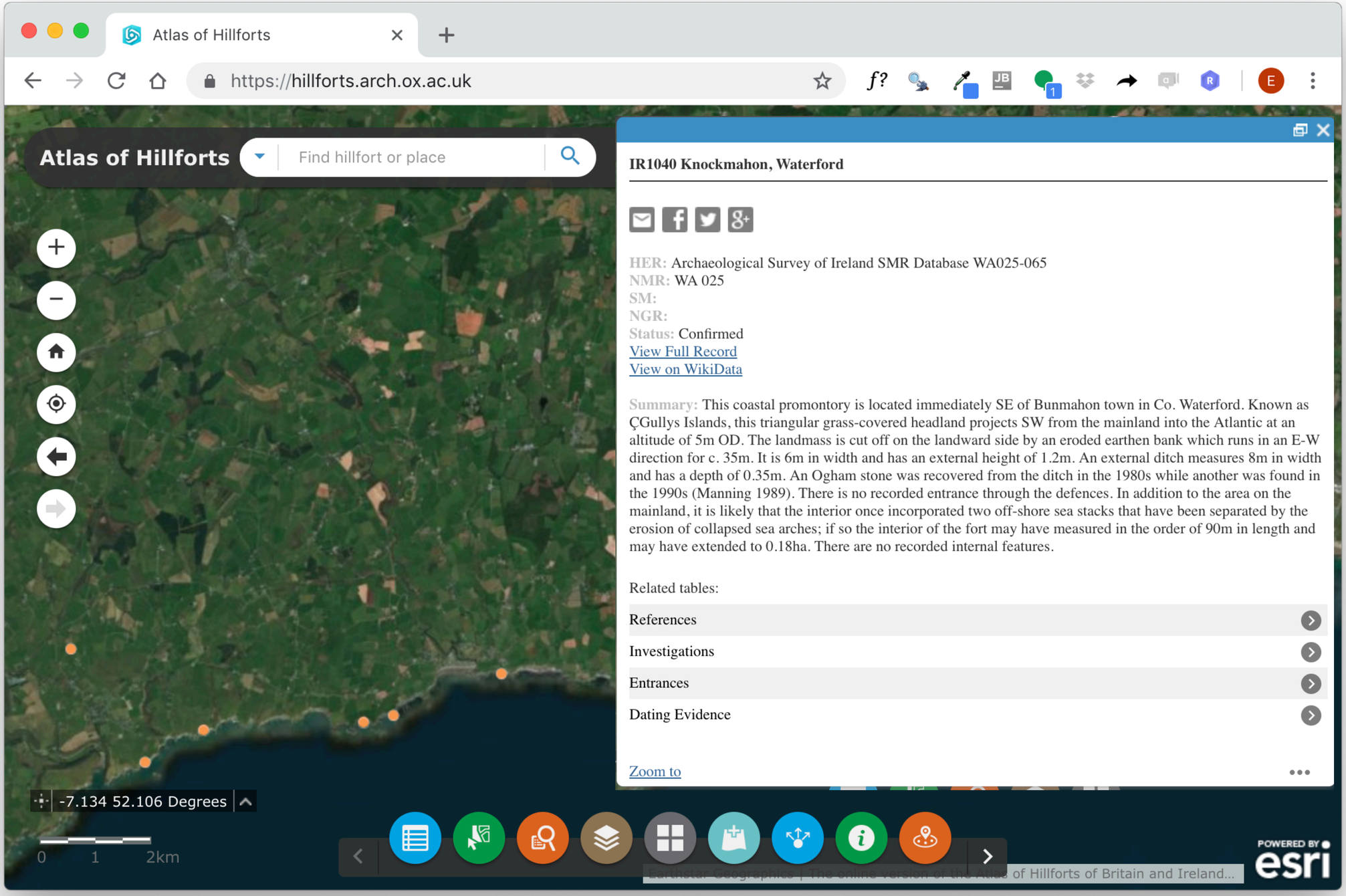
From Wikipedia, the free encyclopedia

The ***Atlas of Hillforts of Britain and Ireland*** is an online database of hillforts—fortified settlements built in the Bronze Age and Iron Age—in the British Isles. It was compiled by researchers from the University of Edinburgh, the University of Oxford and University College Cork, led by Ian Ralston and Gary Lock.[1][2] As of 2017, the atlas has 4,147 entries, which the researchers believe to be all of the extant hillforts in Britain and Ireland.[1][3] A printed atlas is also planned.[4]

The data was collated from existing catalogues of archaeological sites such as the National Monuments Records and county historic environment records.[4] Around 100 volunteers, described as "citizen scientists", also visited sites and contributed information and photographs to the atlas.[5][6] The researchers noted that despite the conventional name "hillforts", under their definition, many are "not on hills and are not really forts".[7] They included sites that are now only visible through cropmarks.[4]

The online atlas is hosted by the Arts and Humanities Research Council, which funded the project,[8] and makes use of Esri's ArcGIS web map application platform.[9] The project also collaborated with Wikimedia UK to make the information in the atlas available to Wikipedia.[1]

https://hillforts.arch.ox.ac.uk/


Atlas of Hillforts
https://hillforts.arch.ox.ac.uk
Atlas of Hillforts
Find hillfort or place
IR1040 Knockmahon, Waterford
HER: Archaeological Survey of Ireland SMR Database WA025-065
NMR: WA 025
SM:
NGR:
Status: Confirmed
View Full Record
View on WikiData
Summary: This coastal promontory is located immediately SE of Bunmahon town in Co. Waterford. Known as ÇGullys Islands, this triangular grass-covered headland projects SW from the mainland into the Atlantic at an altitude of 5m OD. The landmass is cut off on the landward side by an eroded earthen bank which runs in an E-W direction for c. 35m. It is 6m in width and has an external height of 1.2m. An external ditch measures 8m in width and has a depth of 0.35m. An Ogham stone was recovered from the ditch in the 1980s while another was found in the 1990s (Manning 1989). There is no recorded entrance through the defences. In addition to the area on the mainland, it is likely that the interior once incorporated two off-shore sea stacks that have been separated by the erosion of collapsed sea arches; if so the interior of the fort may have measured in the order of 90m in length and may have extended to 0.18ha. There are no recorded internal features.
Related tables:
References
Investigations
Entrances
Dating Evidence
Zoom to
-7.134 52.106 Degrees
0 1 2km
Earthstar Geographics | The online version of the Atlas of Hillforts of Britain and Ireland...
POWERED BY esri

Application Concept

Develop an application supporting an exploration of Archaeological Sites of Interest

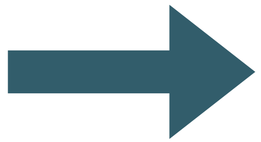
Users are archaeology students.

App should contain a list of sites they have been assigned to visit.

Users visit site, take photos + notes which augment the information on the site provided by the app.

Students can add additional sites - which may be uncharted

2 Versions



Version 1: Foundation

Version 2: Enhanced

Version 1: Foundation

App Components

1. Opening Screen / Splash Screen:
2. Signup / Login
3. Toolbar
4. List of Sites
5. Create/Edit Site
6. Settings

Suitable Image or Logo
Appears for limited period

App Components

1 Opening Screen / Splash Screen:

2 Signup / Login

3 Toolbar

4 List of Site

5 Create/Edit Site

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Standard signup / login screen
2 Fields: Email Address + Password

App Components

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Context Sensitive Menu options:

- Up
- Logout
- Add
- Cancel
- Delete
- Settings

App Components

1. Opening Screen / Splash Screen:
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All Site, each Site:

- Name
- Single image
- Location (lat/lng)
- Visited (checked/unchecked)

App Components

1. Opening Screen / Splash Screen:
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Individual Site:

- Name
- Description
- Up to 4 Images
- Edit Location (select from map)
- Visited (checked/unchecked)
- Date Visited
- Additional Notes

App Components

1. Opening Screen / Splash Screen:
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Logged in user details

- Email
- Password
- Summary Statistics:
  - Total number of Sites
  - Number visited

Version 2: Enhanced

1 Opening Screen / Splash Screen:

2 Signup / Login

3 Toolbar

4 List of Hillforts

5 Create/Edit Hillfort

6 Settings

7 Search

8 Map

9 Track

10 Favourites

Enhance Existing Views from Version 1

New to Version 2

			Enhancements
1	Opening Screen / Splash Screen:		
2	Signup / Login	+	• *Register/Authenticate with Cloud Service (Firebase)*
3	Toolbar	+	• *Access to new views (7-10 below)*
4	List of Hillforts	+	• *Retrieve/Store list from Cloud Service (Firebase)*
5	Create/Edit Hillfort	+	• *Set Location of Site from current phone location* • *Rate Hillfort (1-5 stars)* • *Share Hillfort Details (email or other)* • *Mark Hillfort as Favourite*
6	Settings		

New to Version 2

7	Search	• *Find site(s) based on some search criteria*
8	Map	• *Map of all Hillforts*
9	Navigator	• *Special view to show current lat/lng + map to guide student to precise location*
10	Favourites	• *Quick access to hillforts marked as favourite*

	Features	Architecture	UX	Persistence	Git

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Baseline	- Map of all hillforts - Rate Hillfort	- AndroidX + KTX	- Landscape	- Local Database (Room/Sqlite)	- develop branch

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Outstanding	- Navigator - Share Hillfort	- Lifecycles/ Databinding/ Livedata	- Images direct from Camera	- Firebase db + images	- hotfix branch

Remaining Topics

	Features	Architecture	UX	Persistence	Git
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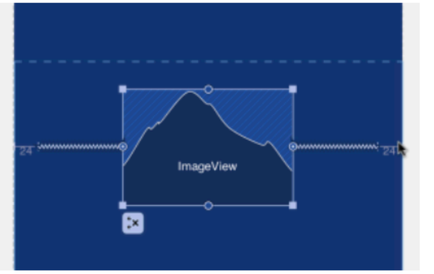
07: Layouts



Kotlin properties, fields, & interfaces. Constraint Layout. Introduce activity to display all placemark locations + details.

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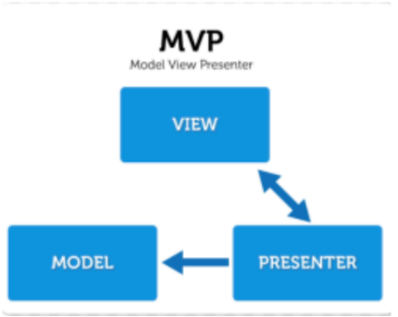
08: Presenters



Introducing Model View Presenter - a pattern to enhance separation of concerns in the Activity classes

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09: Location

Kotlin visibility & extensions. Determine the devices current location & resolve in a map.

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10: Rooms

Kotlin Data & Sealed classes, Generics. Android Architecture Components. The Room framework. PlacemarkStoreRoom implementation

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11: Firebase

Moving the Placemark store to Firebase. Firebase Authentication

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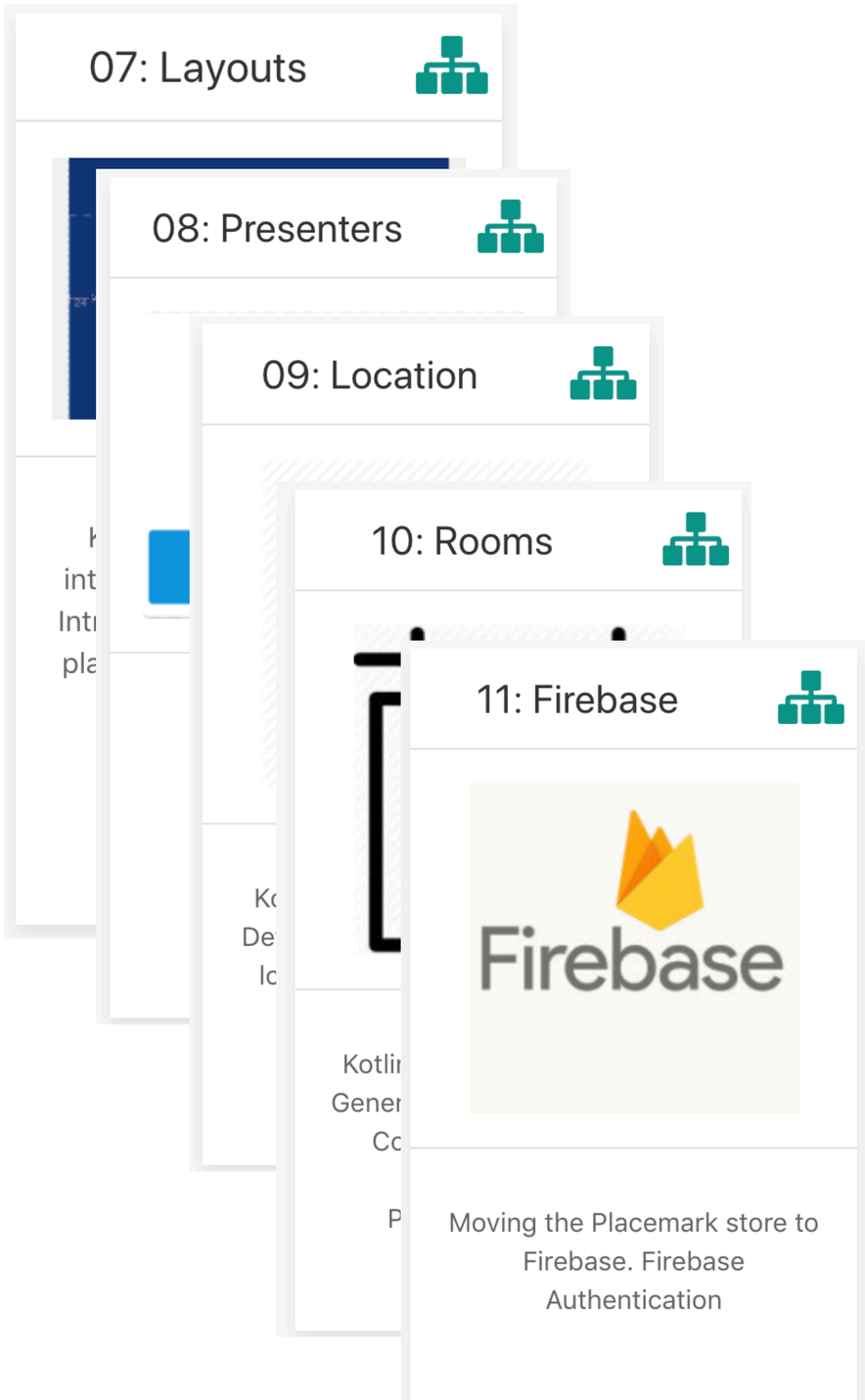

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Android Jetpack

Jetpack is a collection of Android software components to make it easier for you to develop great Android apps. These components help you follow best practices, free you from writing boilerplate code, and simplify complex tasks, so you can focus on the code you care about.

Jetpack comprises the androidx.* package libraries, unbundled from the platform APIs. This means that it offers backward compatibility and is updated more frequently than the Android platform, making sure you always have access to the latest and greatest versions of the Jetpack components.

Foundation

Foundation components provide cross-cutting functionality like backwards compatibility, testing and Kotlin language support.

AppCompat

Degrade gracefully on older versions of

Android KTX

Write more concise, idiomatic Kotlin cod

Multidex

Provide support for apps with multiple DEX files

Test

An Android testing framework for unit and runtime UI tests

Architecture

Architecture components help you design robust, testable and maintainable apps.

Data Binding

Declaratively bind observable data to UI elements

Lifecycles

Manage your activity and fragment lifecycles

LiveData

Notify views when underlying database changes

Navigation

Handle everything needed for in-app navigation

Paging

Gradually load information on demand fro your data source

Room

Fluent SQLite database access

ViewModel

Manage UI-related data in a lifecycle-conscious way

WorkManager

Manage your Android background jobs

Behavior

Behavior components help your app integrate with standard Android services like notifications, permissions, sharing and the Assistant.

Download manager

Schedule and manage large downloads

Media & playback

Backwards compatible APIs for media playback and routing (including Google Cast)

Notifications

Provides a backwards-compatible notification API with support for Wear and Auto

Permissions

Compatibility APIs for checking and

Sharing

Provides a share action suitable for an app's action bar

Slices

Create flexible UI elements that can display app data outside the app

UI

UI components provide widgets and helpers to make your app not only easy, but delightful to use.

Animation & transitions

Move widgets and transition between screens

Auto

Components to help develop apps for Android Auto

Emoji

Enable an up-to-date emoji font on older platforms

Fragment

A basic unit of composable UI

Layout

Lay out widgets using different algorithms

Palette

Pull useful information out of color palettes

TV

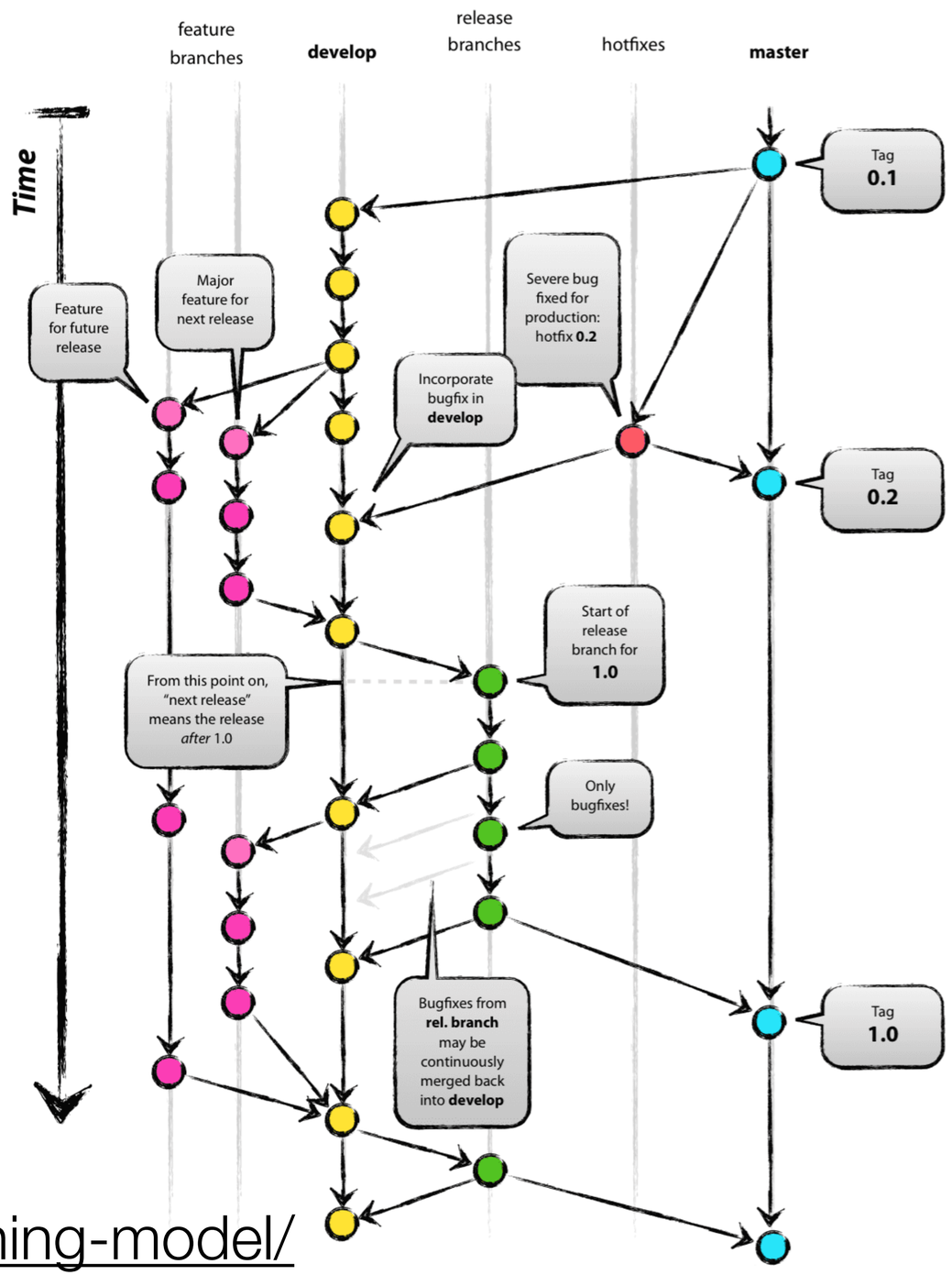
Components to help develop apps for Android TV

Wear OS by Google

Components to help develop apps for Wear

https://developer.android.com/jetpack/

Git Branching Model



https://nvie.com/posts/a-successful-git-branching-model/

Assessment Schedule

2018								
Semester 2		S	M	T	W	T	F	S
September		2	3	4	5	6	7	8
	1	9	10	11	12	13	14	15
	2	16	17	18	19	20	21	22
	3	23	24	25	26	27	28	29
October	*4*	30	1	2	3	4	5	6
	5	7	8	9	10	11	12	13
	6	14	15	16	17	18	19	20
	7	21	22	23	24	25	26	27
November	*Reading-week*	28	29	30	31	1	2	3
	8	4	5	6	7	8	9	10
	9	11	12	13	14	15	16	17
	10	18	19	20	21	22	23	24
December	*11*	25	26	27	28	29	30	1
	12	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
2019		23	24	25	26	27	28	29
January		30	31	1	2	3	4	5

Assignment 2 Specification

Assignment 2 Submission

Submission Guidelines

Deadline : January 4th - 11:00pm

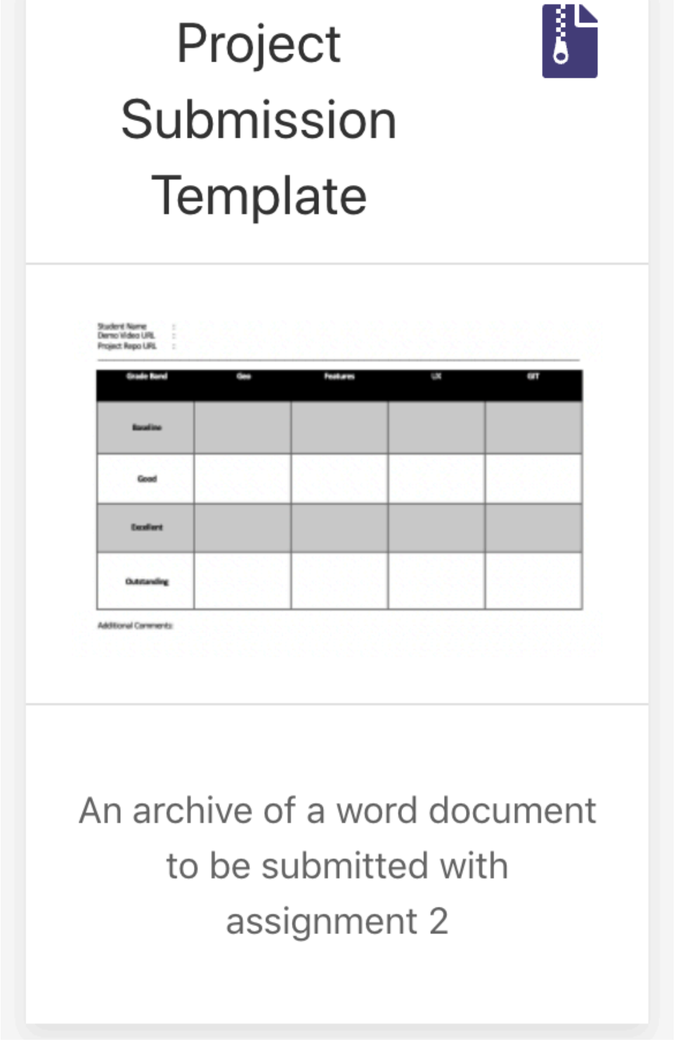
Submit single word document

Student Name :
Demo Video URL :
Project Repo URL :

Grade Band	Geo	Features	UX	GIT
Baseline				
Good				
Excellent				
Outstanding				

Additional Comments:

Template On Course Web



Template Structure

Short Video Demo (8 minutes max)

Github Repo (invite it private)

Student Name :
Demo Video URL :
Project Repo URL :

Grade Band	Geo	Features	UX	GIT
Baseline				
Good				
Excellent				
Outstanding				

Short Comment on each achievement (< 20 words per cell)

Additional Comments:

Additional comments (optional)