Mobile Programming

Course overview

Intro

- Tutor

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  - Office: Frontier 610

- Class homepage
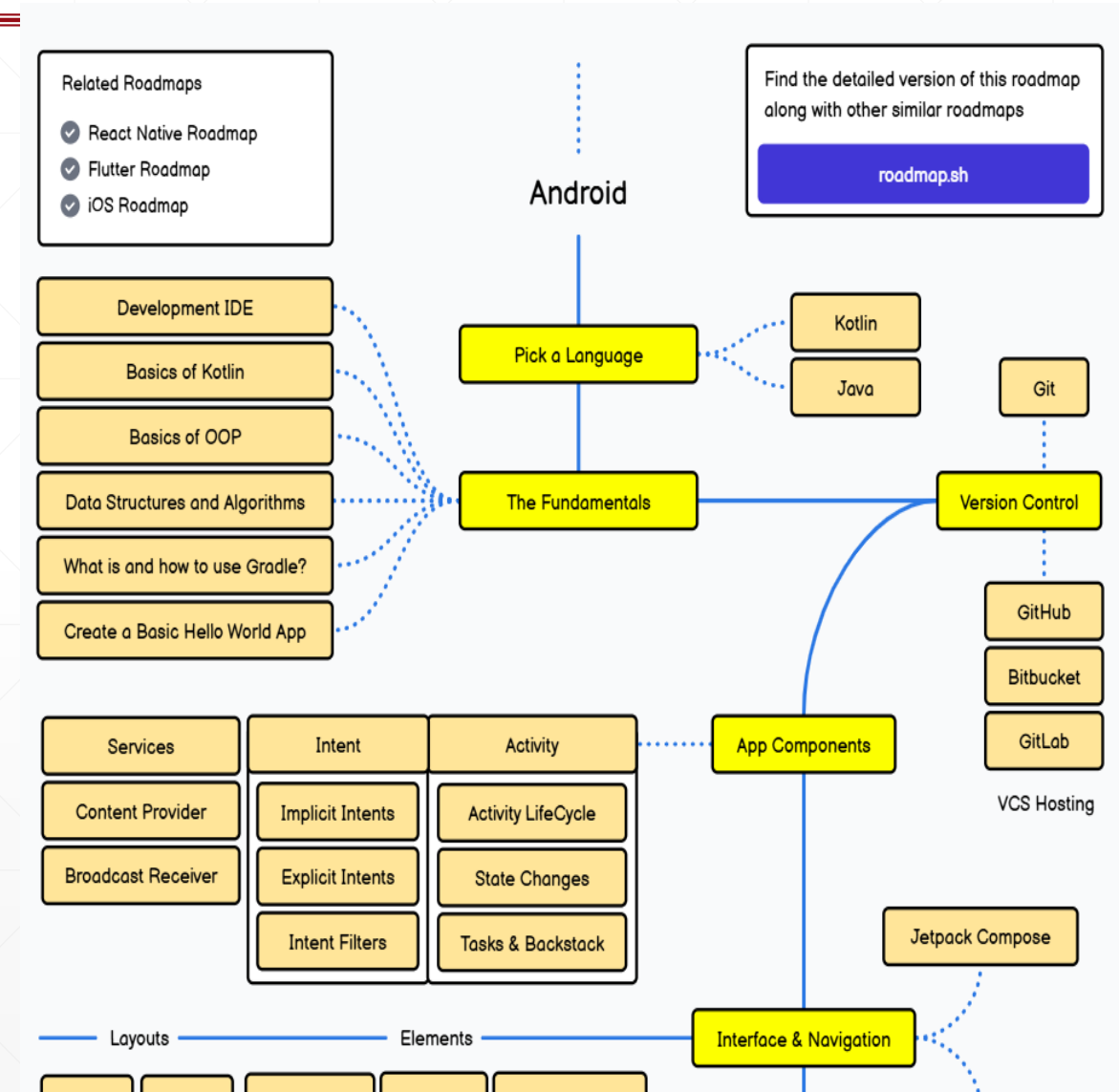
  - E-class (http://eclass.seoultech.ac.kr)

- Prerequisites

  - Java → Kotlin

  - Web/Cloud, Database skills

Android Developer Roadmap

■ https://roadmap.sh/android

Goal

- Kotlin Basics

    - Understand Kotlin basics

    - Understand Kotlin's flow control, collections, etc.

    - Understand Kotlin OOP concepts

- Mobile App programming with Android

    - Understand Android OS

    - Utilize Android programming environment

    - Develop mobile applications using Android APIs

Curriculum

Week	Contents	Lecture Methods, Assignments, Contents of Evaluation
1	Course Introduction, IDE setup Kotlin Basics	
2	Kotlin Basics	
3	Kotlin Basics	
4	Android App Basics	
5	Layout & Navigation	
6	Activity & Fragment	Project Overview
7	Midterm exam	
8	Project proposal presentation	

(subject to change)

Curriculum

9	UI (Part I)	
10	UI (Part II)	
11	Data & Permissions	
12	Interaction with Web	
13	Interaction with Device (Part I)	
14	Interaction with Device (Part II)	
15	Project final presentation	

(subject to change)

Curriculum (cont'd)

- **Lecture + Lab**
  - ➢ Win11, Kotlin, Android 13+ (AVD can be used)

- **Assignment**
  - ➢ Programming practices
  - ➢ Submission: e-class + github (optional)

- **Grading**
  - ➢ Assignment 25%
  - ➢ Project 50%
  - ➢ Midterm exam (written+lab) 25%

Project (50%)

■ Develop a mobile application based on your own

- ➢ Scenario

- ➢ Design

- ➢ Implementation

- ➢ Report/Presentation

■ Team-based project

- ➢ Github project management (optional, but recommended)
  - • or any other project management solutions should be used

Note

- No cheating, please!
  - ➢ All assignments scores throughout the semester will be considered 0 (zero)
  - ➢ This also applies to the original source owner

- Reference
  - ➢ https://developer.android.com/docs
  - ➢ Online lectures/guides/tutorials

More Important Note

■ Focus on Core

  ➢ Tooo……………….many components there!

  ➢ Impossible to cover all the things about Android

■ Then, a self-motivated study for project development!

  ➢ More widgets?

  ➢ More layouts?

  ➢ More device features?

  ➢ More 3rd party libraries?

  ➢ More platform?

  ➢ …

Q&A

- This week (+eClass video)

  ➢ IDE Setup

  ➢ Introduction to Android

  ➢ Homework #1

- Next week

  ➢ Kotlin Basics Part I (eClass video)

  ➢ Kotlin Basics Part II (eClass video)