Mobile App Development

COURSE INTRODUCTION

Handong Global University
Jo Sung Bae

Overview

- Instructor: Prof. Sung-Bae Jo
  - *Office : NTH203(Tel:1364)*
  - *E-mail : sungbaejo@handong.edu*
  - *Officehour : WED 10:00~11:15*
  - *#Handong#Multi#Love#StartUp#Old#FamilyVsYou#Balance#Unique #NoEval #TryNFollowNExpressNChange*
- TA

- Time and classroom

- Prerequisite: Java programming (OOP)

Your background?

- Web : HTML, CSS, Javascript

- App : Android(Java, Kotlin), iOS(Object-C, Swift), Ionic, Flutter

- Framework : Angular, React.js, Vue.js

- Cloud : AWS, Azure, Firebase, Serverless

- PWA (Progressive Web App)

- NoSQL DB (MongoDB, DynamoDB, Firestore)

- OSS Ecosystem (Node.js, Npm, Github)

Textbook

- ~~Mobile App Development with Ionic 2: Cross-Platform Apps with Ionic, Angular, and Cordova~~
    - ~~*O'Reilly Media (April 28, 2017)*~~
    - ~~*"We tried to cover many of the various parts of Ionic and its supporting technologies at a reasonable depth in an order that made sense."*~~
- ~~http://shop.oreilly.com/product/0636920044710.do~~
    - ~~*10-day trial, Amazon Kindle, yes24, aladin*~~
- ~~Prerequisite: Java Programming (OOP)~~
- ~~Recommended prerequisites: Open source software~~
- ~~Errata: http://www.oreilly.com/catalog/errata.csp?isbn=0636920044710~~
- ~~Updates: https://chrisgriffith.wordpress.com/category/book/~~

Overview

- Lecture overview
  - *This course covers basic concepts and knowledge to build cross-platform mobile program. It covers the following topics.*
    - Introduction to mobile apps.
    - Basic knowledge to build cross-platform mobile apps.
    - Features provided by framework.
    - Advanced topics.

- Course objectives
  - *The students understand fundamental concepts of mobile programming.*
  - *The students can develop cross-platform mobile applications.*
  - *The students can effectively utilize development tools necessary for mobile programming.*

https://flutter.io/get-started/editor/#androidstudio

Tentative Schedule

Weeks	Topics
1	Introduction Flutter (Install, First App)
2	Dart Flutter (Design basic, Image, List, Gesture, Navigation)
3	Flutter (Layouts, Interactivity)
4	Flutter (UI Tutorial, Animated List)
5	Material design (Component basics, Layout, Structure)
6	Material design (Theming, Advanced Component)
7	Midterm (Start) Flutter (Box Contraint, Gesture, Animation)
8	Midterm (Score) Firebase
9	Firebase for flutter
10	Firebase Package (Firestore) & Fireflutter plugin
11	Final Exam (Start) Firebase Package (Storage, Auth)
12	Final Exam (Score)
13	Project
14	Project
15	Project (Submission)
16	Project (Presentation)

* This schedule can be modified according to the students' performance and other reasons.

Grading Policy

- **Attendance (10%)**
  - *The student has missed more than 1/4 of the class (F)*
  - *Three times of lateness will be counted as one absence.*

- **Homework (20%)**
  - *Any submission later than its deadline will be penalized.*
    - One day: 20% penalty
    - More than one day: rejection

- **Team-project (20%)**

- **Midterm examination (25%)**

- **Final examination (25%)**

#DropNow #PaperJuniorFirst #Covid19Classroom #NoDebugWithTA #PassFailGradeApproval

Exam: #NoTheory #OpenBook #OpenInternet #NoChat ~~#Hackathon~~ # TakeHome #HandsOn #Level343 #NoPartialScore

Project: #RecommendTeam #From2ndWeek #PracticeTogether #UI #DragNDropTool #StarterTemplate #RealWorldProblem #IdeaLogicProduct #1ButtonVs100Buttons #Contest #Copyright #Portfolio #ABEEKreport

Notices

- Any unauthorized use of electronic devices in the class, except for attendance check, without explicit permission is not allowed.

- Repeatedly sleeping in the class or disturbing class can be penalized.

- Any type of dishonesties will result in Failure.

    - *The cheating criteria of CSEE are described in "**HGU CSEE Standard**" and "**CSEE Honor Code Guidelines**".*

    - *They are accessible through the following links. Please read them carefully.*

        - English: https://drive.google.com/file/d/0B9iQGS7v1k9Ob0oxTExmMjhPU28/view?usp=sharing

        - Korean: https://drive.google.com/file/d/0B9iQGS7v1k9ORGhXSHNyTkpvQW8/view?usp=sharing

    - ***Sharing or showing any submission**, including source codes, will be regarded as cheating.*

    - ***Referencing any solution written by others**, including the solution acquired from the internet, will be regarded as cheating.*

#WhiteEyes #SmileOnScreen

P-T-P

- <u>Practice</u> – Theory – Project
- Docs: Practice (Quick start / Getting Started / Tutorial)
- TextBook: P-T-P
- Classroom: TextBook(Practice+Theory), Hands-on(Project)
- Course: Class(Practice+Theory), Project(Team)

Mobile application development

- Mobile web: HTML, CSS

- Progressive Web App(PWA)

- Hybrid(WebView/Cordova): Ionic

- Native: iOS(Objective-C, Swift), Android(Java, Kotlin)

- Native(Cross-platform): Xamarin, NativeScript, React Native, Flutter

Java vs. Kotlin

- Android Announces Support for Kotlin
  https://android-developers.googleblog.com/2017/05/android-announces-support-for-kotlin.html

- Comparison to Java Programming Language
  https://kotlinlang.org/docs/reference/comparison-to-java.html

Stack Overflow Developer Survey

- Most Popular Technologies
  https://insights.stackoverflow.com/survey/2019#technology-_-most-loved-dreaded-and-wanted-other-frameworks-libraries-and-tools

  https://insights.stackoverflow.com/survey/2020#technology-most-loved-dreaded-and-wanted-other-frameworks-libraries-and-tools

  https://insights.stackoverflow.com/survey/2021#section-most-loved-dreaded-and-wanted-other-frameworks-and-libraries

- Github - Top and trending projects
  https://octoverse.github.com/2019/#top-and-trending-projects

#NewFrameWork #NewCodingTest #FastLearner

Why Flutter?

- Cross Platform

- Ionic vs. ReactNative vs. NativeScript vs. Flutter

- #3rdParty #DependencyManagement #VersionManagement #GoogleFullPackage

- https://hackernoon.com/whats-revolutionary-about-flutter-946915b09514

- https://stackoverflow.blog/2022/02/21/why-flutter-is-the-most-popular-cross-platform-mobile-sdk/

- https://medium.com/flutter/google-i-o-spotlight-flutter-in-action-at-bytedance-c22f4b6dc9ef

- Flutter Recent Update
  https://medium.com/flutter/announcing-flutter-for-windows-6979d0d01fed

Why Flutter? - Naver

- 지식iN App in Flutter
  https://d2.naver.com/helloworld/3384599

- Naver Blog: Native App to Flutter App (video)
  https://tv.naver.com/v/23649861

- NAVER Tech Talk: Flutter meetup (video playlist)
  https://d2.naver.com/news/9527890

MicroLearnable
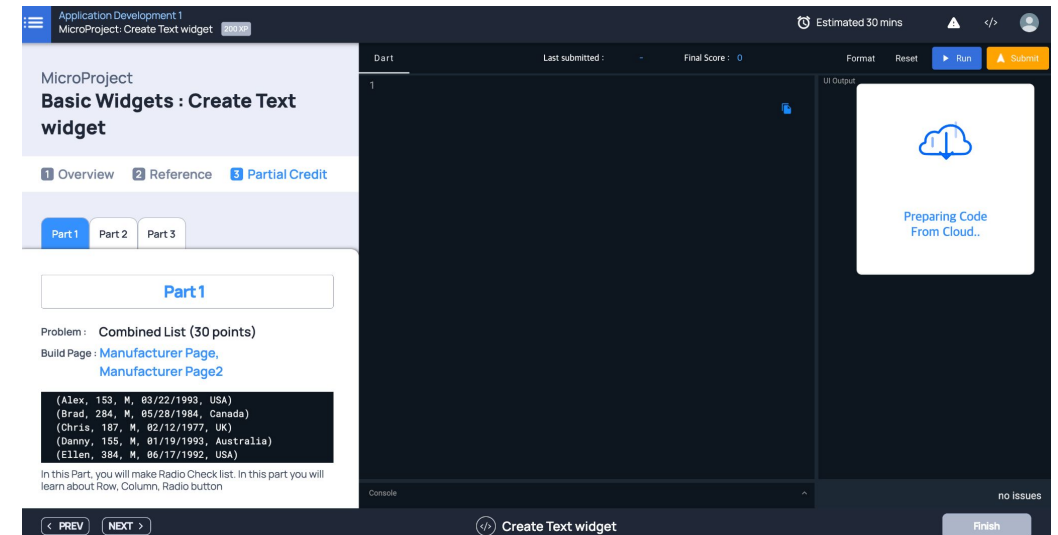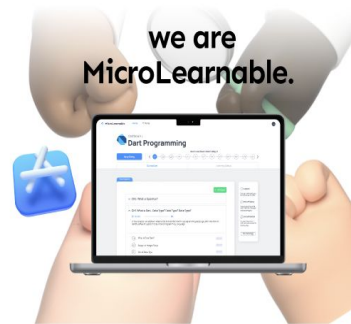
Additional Information
    #Group Code : S5m9C8
    #Do not share Group Code
    #User Test

https://microlearnable.com