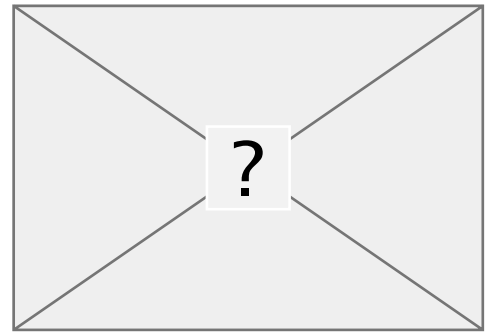


CS 402: Mobile App Development - Spring 2020



Course Description

A project intensive course on mobile development using Android or iOS platforms. Overview of mobile platforms and their characteristics, mobile interface design and best practices using such technologies as GPS, camera, persistence, and more.

Objectives

1. Become proficient in the major technologies and paradigms of mobile application development, specifically for Android.
2. Develop experience creating real world mobile applications.

Requirements

The following items are required for this class:

- Android Studio: <http://developer.android.com/sdk/index.html>
 - Or, as part of the JetBrains Toolbox (free for students): jetbrains.com/student/
- Github Account: <http://www.github.com>

Recommendations

The following are not required but will help in developing mobile applications:

- [Free lynda.com Account](#) - Free Boise Public Library card needed (Need Boise mailing address)
- Broad Topic Guide: [Android Programming Concepts](#)
- A physical Android tablet or smartphone
- [Android Developer Account](#) (\$25)

Schedule

Section	Date	Description	Assignment Due
	Jan. 14	Introduction to the Android platform, Android Studio and Kotlin.	
	Jan. 16	Android platform architecture: Overview, Manifest, Intents and Activities Lifecycle, Strings, Interface layouts	
Kotlin Basics	Jan. 21	Intro to Kotlin	
	Jan. 23	Kotlin	HW #1
	Jan. 28	Intents and Second Activity	
Android Basics	Jan. 30	First Real Android App	
	Feb. 4	Architecture, Singletons, Factories	
	Feb. 6	Interface Design, UX, HCI	
	Feb. 11	App Store Marketing and Revenue	HW #2
	Feb. 13	Web Services	
Mobile Features	Feb. 18	Observer Pattern, EventBus	Project 1
	Feb. 20	Fragments	Project 1
	Feb. 25	Permissions, Camera	
	Feb. 27	Maps, Locations and GPS	
	Mar. 3	Databases on Android	
	Mar. 5	Databases on Android	

Section	Date	Description	Assignment Due
Optionals	Mar. 10	Servers	
	Mar. 12	2D Mobile Game Development	HW # 3 - tentative
	Mar. 17	3D Mobile Game Development	
	Mar. 19	Project 2 Workshop	
	Mar. 24	Spring Break	
	Mar. 26	Spring Break	
Android Extras	Mar. 31	Topics in Android	
	Apr. 2	Background Services & Geofencing	Project 2 - Databases & Web Services
	Apr. 7	Google Play Store	
	Apr. 9	Android Jet Pack	
	Apr. 14	TBD	
Final Stretch	Apr. 16	TBD	Project 3 - Polish
	Apr. 21	Android Interview Review	
	Apr. 23	Workshop	
	Apr. 28	Project Presentations	
	Apr. 30	Project Presentations	
	May 5	No Class	Final Project (Project 5)

Attendance (5%) 5%

Homework (30%) 10% HW #1
 10% HW #2
 10% HW #3

Projects (70%) 10% Project 1
 20% Project 2
 15% Project 3
 25% Final Project

Suggested Readings

Android Programming Getting Started

<http://developer.android.com/training/index.html>

Links

Class Git Repository

Class repository with all assignments, class notes, example code, etc.