Final Project

Due 3/10 @ 11:59 pm

Key Checkpoints

Group Formation	2/8	Submit Group Form
Ideation	2/18	-
Proposal	2/24	Submit Proposal for Approval
Mini-Tech Demo	3/17	-
Presentation Details	3/17	-
Video	3/17	Submit Code w/ Video on Gradescope
Optional Peer Feedback	3/19	-

Introduction

This project is an opportunity for everyone to be creative and explore areas of Android that interest you the most. This project is by no means a heavy assignment, the intention is to learn about technologies in relation to Android that we were not able to cover in the confines of the quarter. This project will involve learning about core Android technology and how to implement it in a mini-tech demo. After all the projects are submitted we will all vote as a class on our favorite idea and presentation for receiving a People's Choice award!

Group Formation

Find peers in the class to form a group of 4-5 people to work with for this final project. Please submit your finalized groups through the following google form

Ideation

Some Ideas should you be thinking about addressing for this project:

- UN 17 global goals

- Impactful
- Use of a technology in android to help create the level of impact you are trying to achieve

Remember this is done through a team of 4 or 5 (must have permission to be a team of 5.) Take advantage of your number to work on something meaningful and impactful for showcasing technology. Whether this means helping the community or utilizing advanced technologies & APIs, make sure you are thinking toward a larger goal.

While we don't expect a fully functional app, we do expect a problem to be fully defined and addressed. The idea does not need to be complex.

The ideas can range from things such as:

- Maps
- Cloud
- Vision
- Firebase
- Mobile Phone Sensors
- Translation API
- Vision API
- Shared Preferences
- Giving users Notifications
- Using location based services
- Adding ads into your app
- Jetpack Compose
- Animation Library
- VR/AR
- or any other Android-based technology!

Idea submission form coming soon!

Deliverable

Come up with a list of 5 technologies in relation to developing android applications that you want to learn more about. In order to make sure there isn't too much overlap among groups, we will use this list to give everyone their highest pick where there is no overlap in choice with another group.

Just make sure you don't choose a topic that may not be feasible to research and learn in the given time frame, otherwise the experience may not be enjoyable.

Proposal

Tell us about what technology/tool/library in android you want to learn more about and convey the knowledge to your peers.

The proposal itself will consist of the following items for submission:

- ~1 Page on why the specific problem and technology your group chose

Keep in mind that the following will be needed for the final project submission

- Presentation + Video covering your understanding and plans for the app
    - This presentation should be no more than 15 mins long
- Mini-Tech Demo showcasing just a part of the technology you are presenting on
- Code should be on submitted on Gradescope through a private GitHub repo

Mini-Technology Demo

We will not be requiring groups to build any full fledged app for the final project but rather implement a key part of the technology that your group has chosen. The code does not need to be fully functional, but must show a logical progression showcasing a logical process.

Presentation Details

The presentation should include bare-minimum slides along with a mini-demo as follows:

- Intro Slide
- Problem Slide
- Solution Slide
- Designed Mockup (Optional)
- Code Tour of Mini-Demo
- Conclusion Slide

Video

As a group you will compile everything above into a video submission format highlighting your idea. This includes all aspects from the presentation and mini-demo. Please make sure to provide the video through an accessible google drive link in the README.md of your GitHub submission on Gradescope.

Proposal Submission

Please upload the ~1 page proposal on Canvas.

Final Submission

Your final submission should have all the parts in a GitHub repo.

The GitHub repo should contain the following:

- README.md
    - Link to your Google Drive video
    - List of Group Members
- Code for the Mini-Demo (does not need to be 100% functional, but should be logical. Some crashes and errors are fine)
    - Make sure the code is generally commented with core goals in each file

In your README.md please list out all the members in your group in the following format:

> **Group Members**
> email@ucdavis.edu, first_name last_name, sid
> email@ucdavis.edu, first_name last_name, sid
> email@ucdavis.edu, first_name last_name, sid
> email@ucdavis.edu, first_name last_name, sid
> email@ucdavis.edu, first_name last_name, sid

Final Project FAQs

Do we have to explore new technologies or could we just use technologies taught in class and will there be any additional resources?

- Yes, you need to explore/research new technologies
- You can use any/all of the lectures/demos provided so far for the final project.
- This final project is intended to give an opportunity to research and implement android technologies that we did not have time to address in class while taking advantage of reviewing base lecture/demo concepts to help implement the final product.
- If you have trouble finding resources for ramping up on learning your chosen technology, we can recommend resources.

Do we need to focus specifically on only working with one technology?

- The final project should showcase one core technology you chose to explore outside of what we have covered/used in the course. By no means are we expecting a full fledged app that does everything you set out to wanting to do. Pick a core functionality of the application that can showcase the chosen core technology and implement it to show a proof of concept of your project idea. If you would like to go beyond this as a group, you are more than welcome to build a flushed out application that includes everything you set out to complete.

How will the final project be graded on? Are there any specific requirements?

- The final project will be graded based on the deliverables that need to be submitted which are:
    - Proposal
    - Presentation (Overview of idea, implementation, demo)
    - Code Submission