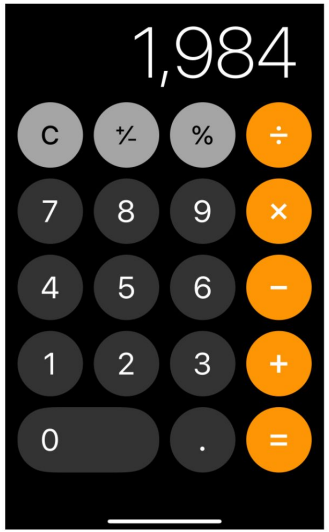
E116 (Optional) App Challenge

Write an app. Get out of the midterm.

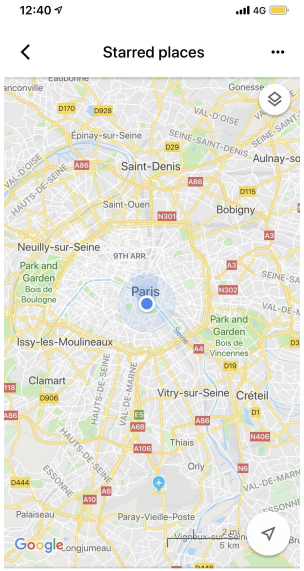
Plus, a secret *gift* for your eyes only.

One App. **Three** screens. **Swipe** from one screen to another.



Screen 1

Basic Calculator



Screen 2

Location on a map (note: emulator will default to “random” location)

Screen 3

Anything you desire.

Some Rules:

- App must be written in a native development environment, not a third party emulator such as Unity.
- Such ‘native’ environments include Android Development Studio (on Windows) or XCode (Mac). Downloading these studios is very easy, and free of cost.
- At a minimum, app works on the emulator that comes with these studios. Of course, nothing beats an app on a real phone.
- You do not have to publish this on the App store or spend any money whatsoever.
- **Deadline**: **08:59 am, Friday, Oct 22.**

A few notes:

- You can collaborate with others, but the submission (and midterm exemption) must be **individual**.
- When you are done with the app, simply **send me an email** (miyengar@stevens). We will find a time to get together.
- We have a **special gift** for you in store. Even minus our gift, getting this app to work will be an incredibly rewarding and extremely empowering experience.

What must the app do?

- Your app has three different screens, one each for (i) a calculator, (ii) location-on-map, and (iii) anything else you want.
- These three screens should either be accessible by swiping screen left/right from a current view, or by clicking on a simple panel selector at the bottom of the screen to switch views.
- You can borrow parts of source code from the web to achieve these functionalities, but you must still knit them together into one app.

A few notes:

- Start small, try to write an app that displays “Hello World” on screen first.
- Simple google searches like “how to write my first app” can quickly take you down a fun rabbit hole.
- All big acts start small. We encourage you to take the first step.

How to get started

Some simple tips to help you out

Option 1: The Golden Route (React Native)

- React Native is a killer platform for producing apps. It is platform and device independent
- The advantage of RN is that you can create an app once, and deploy it on any device of your choosing (iphones, android, tablets, web etc.,)
- This is slightly more difficult but it’s actually really powerful
- If you do it in react-native, we will in fact find a way to work with you right after this semester is over! No kidding.

Option 2: If you own a Mac

- Download XCode
- Start small. Try getting a simple app with “Hello World” up first.
- Then search the web for “*Swift* calculator app tutorial” or related search terms
- Xcode **only** produces apps for iPhones; the emulator will let you pick any version of iPhone you want to test your app on
- If you also own an iPhone, you can download the build to your phone by connecting your phone to your laptop using a USB cable or something equivalent

Option 3: If you own a Windows machine..

- Download Android Studio
- Android studio uses Java, which is somewhat similar to C++
- Start small. Try getting a simple app with “Hello World” up first.
- Then search the web for “android studio calculator app tutorial” or related search terms
- Android studio will **only** produce apps for Android phones on a built in emulator (i.e., you don’t need to own an Android phone)