

# IS 543 Fall 2023

Mobile Platform Development

MVVM Demo

Dictionaries

First Look at Concurrency

Dr. Stephen W. Liddle

782 TNRB, office hours Tu 9:30–10:30am, Th 2–3pm

[is543@byu.edu](mailto:is543@byu.edu)

801-422-8792 (rings on my cell)

Zoom: <https://bit.ly/liddlezoom>





# Today

- We'll spend most of the time exploring MVVM based on HW6
- Also: dictionaries in Swift
- And a first peek at how to run code in the background



# Last Tuesday's Forum

## • Dr. Akhil Reed Amar

We are extraordinarily diverse: we don't have a shared religion, race, geography, language or politics

What we have in common is the U.S. Constitution

We need to know our "Constitutional narratives"





# Fun Facts

## 👁️ Public accountability!

Here's where I am in the [HundredPushups.com](https://HundredPushups.com) program and in Pushups for Kyle

I'm on Week 6 of the workout program


The last day (tomorrow) looks like this:

Sets of 26, 26, 33, 33, 26, 26, 22, 22, 60+  
(Rest 45 seconds between each set,  
longer if needed; I usually need longer!)

I'm getting my flu shot this afternoon, so we'll see if that messes with my ability to do the workout tomorrow

## 👁️ We need to adjust the accounting rule

Richard agreed that I could count extra reps over two days



7:12

Push-Up Tracker [Edit](#)

Push-ups that count for Kyle: 1,450

[Report](#)

INDIVIDUAL WORKOUTS

Sep 27, 2023	253
Sep 25, 2023	225
Sep 22, 2023	50
Sep 20, 2023	205
Sep 18, 2023	190
Sep 15, 2023	180
Sep 13, 2023	170
Sep 11, 2023	144
Sep 9, 2023	50
Sep 8, 2023	50
Sep 7, 2023	50
Sep 6, 2023	50

[Push-Ups](#) [Push-Ups for Kyle](#) [HundredPushups](#)



# HW6 Debrief

- What did you learn from HW6?

How did you enable/disable sound in your UI?

What are the Model elements you decided you need?

What are the ViewModel elements you decided you need?  
(Model Accessors and User Intents)



# Calculator Demo

- We'll spend most of the rest of today on demo

Along the way we'll see a lot of interesting concepts

Building a real MVVM architecture

Using Swift's `Dictionary` type

Performing long-running operations (like playing sound) in the background

Practical applications of `enums`, tuples, and much more



# Homework 7 for Tuesday

- I will post some videos I want you to watch and code along with
  - Certainly the remainder of the calculator app
  - Probably more progress on the pushup tracker app too

- Coming soon:

- Assign Project 1

- Property wrappers and how/why to use them

- How to read/write data (persistence between launches of your app)

- How to send web requests and process responses

- How to use concurrency in Swift

- Demo of a card game (concentration) with animation and lots of good things

- Demo of an app to map in real-time all airplanes over the state of Utah

Also, note that I'll be gone the week after next and those days are listed as Project 1 Lab Days  
I will record some videos to help you — there will be plenty of material for that week!