

**SUHAIL GHAFOOR**  
**FINAL PROJECT PRESENTATION**

**CSE 335**  
**Fall 2017**



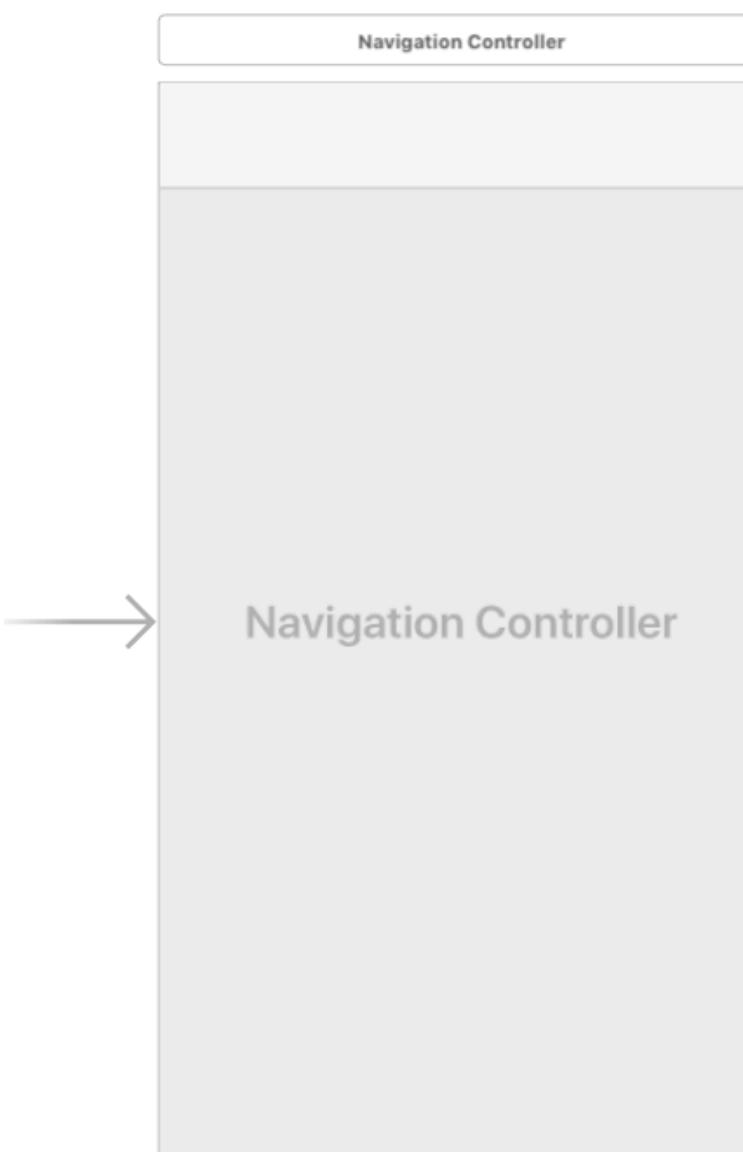
PICTURE USED WITH PERMISSION OF THE PHOTOGRAPHER

# INTRODUCTION

A simple app that lets the user view earthquakes around the world on either a map or a simple list. The user can also choose a particular earthquake and view more details about it.



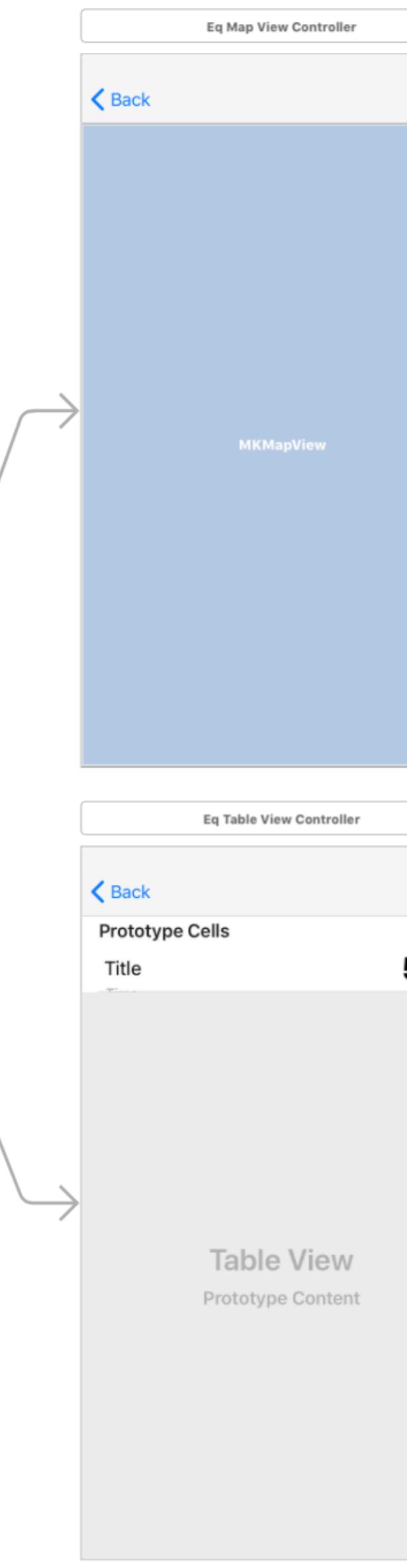
0



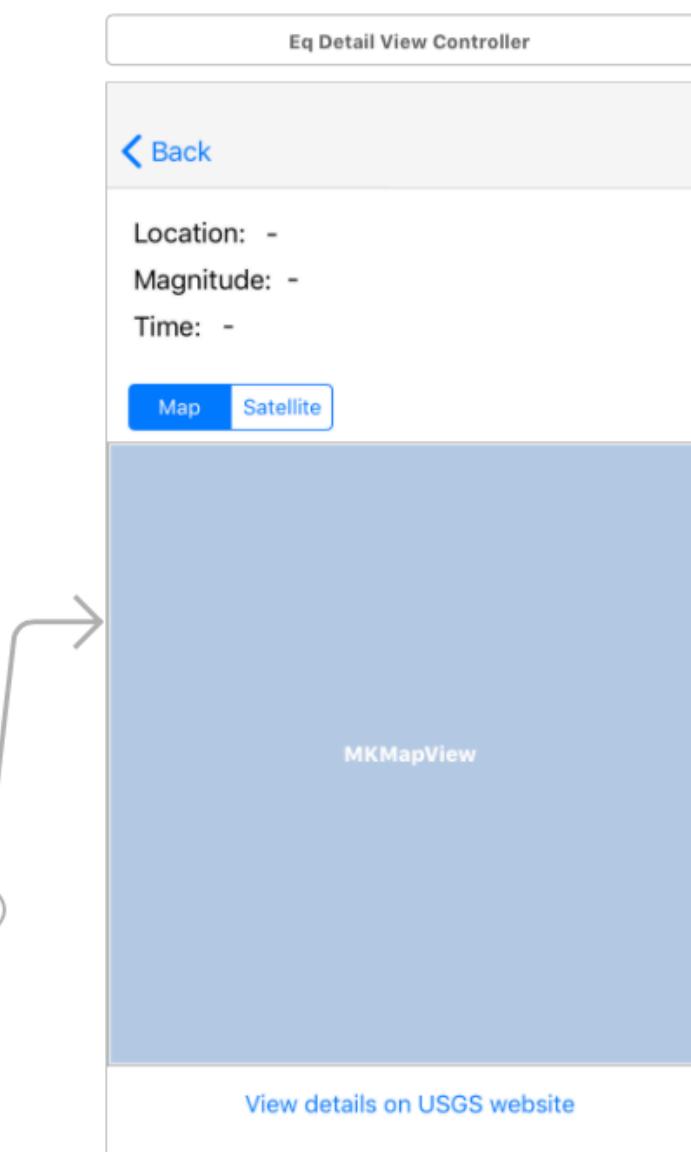
1



3



2



4



5

WORKFLOW



# DESIGN DECISIONS



## TIME

Features that we learned in class that I could have implemented in this project but could not due to time limitations.



## SKILL

There were features that I wanted to implement but did not know where to begin.



## GRADING

Implementing features that were required by the project criteria.

# Design

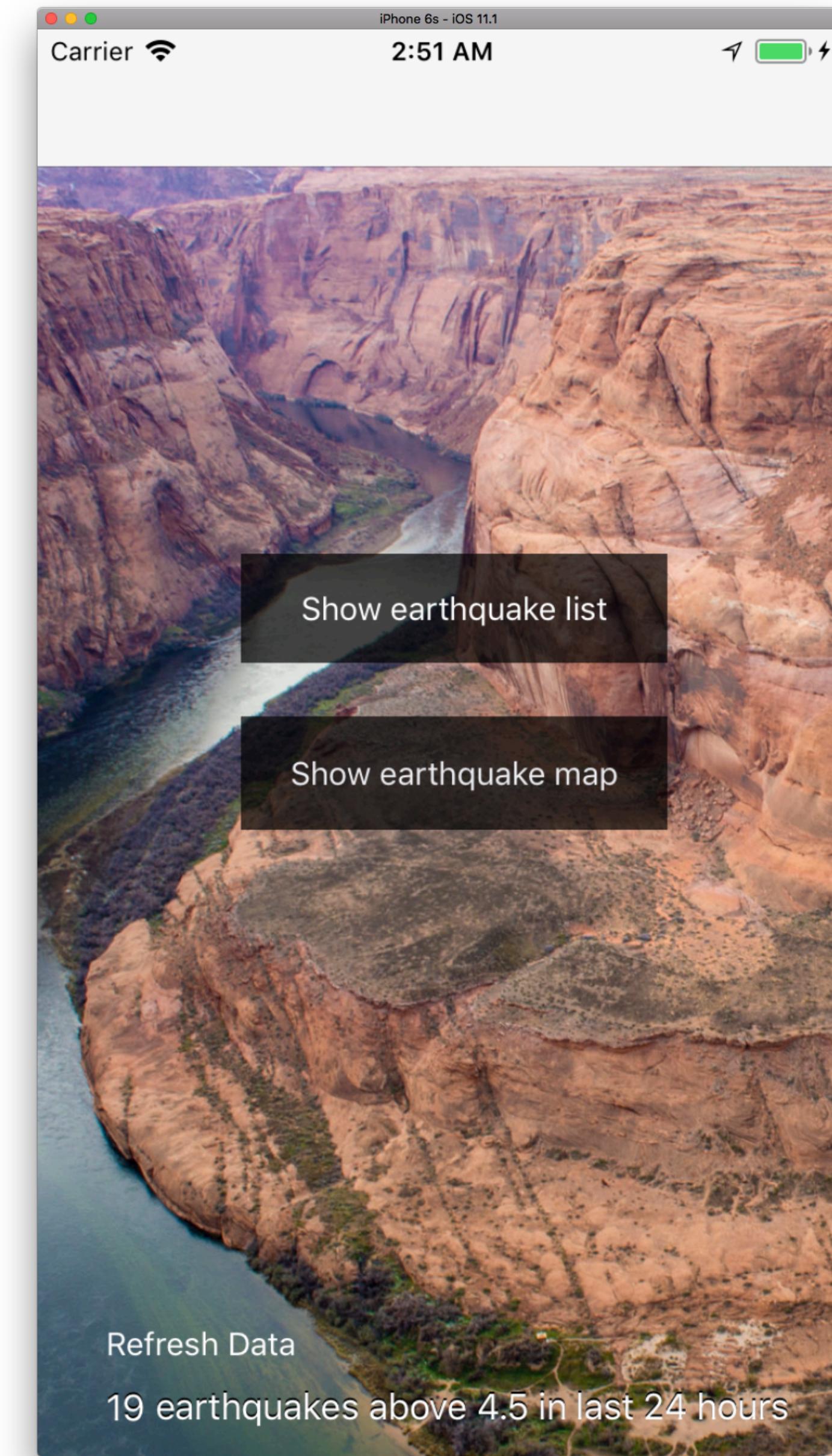




1

# HOME VIEW

- Initial screen of the app
- Two options, either view earthquakes as a list or on a map.
- Option to refresh data.
- Shows the amount of earthquakes currently stored on the phone.
- Data fetched from [earthquake.usgs.gov](http://earthquake.usgs.gov)

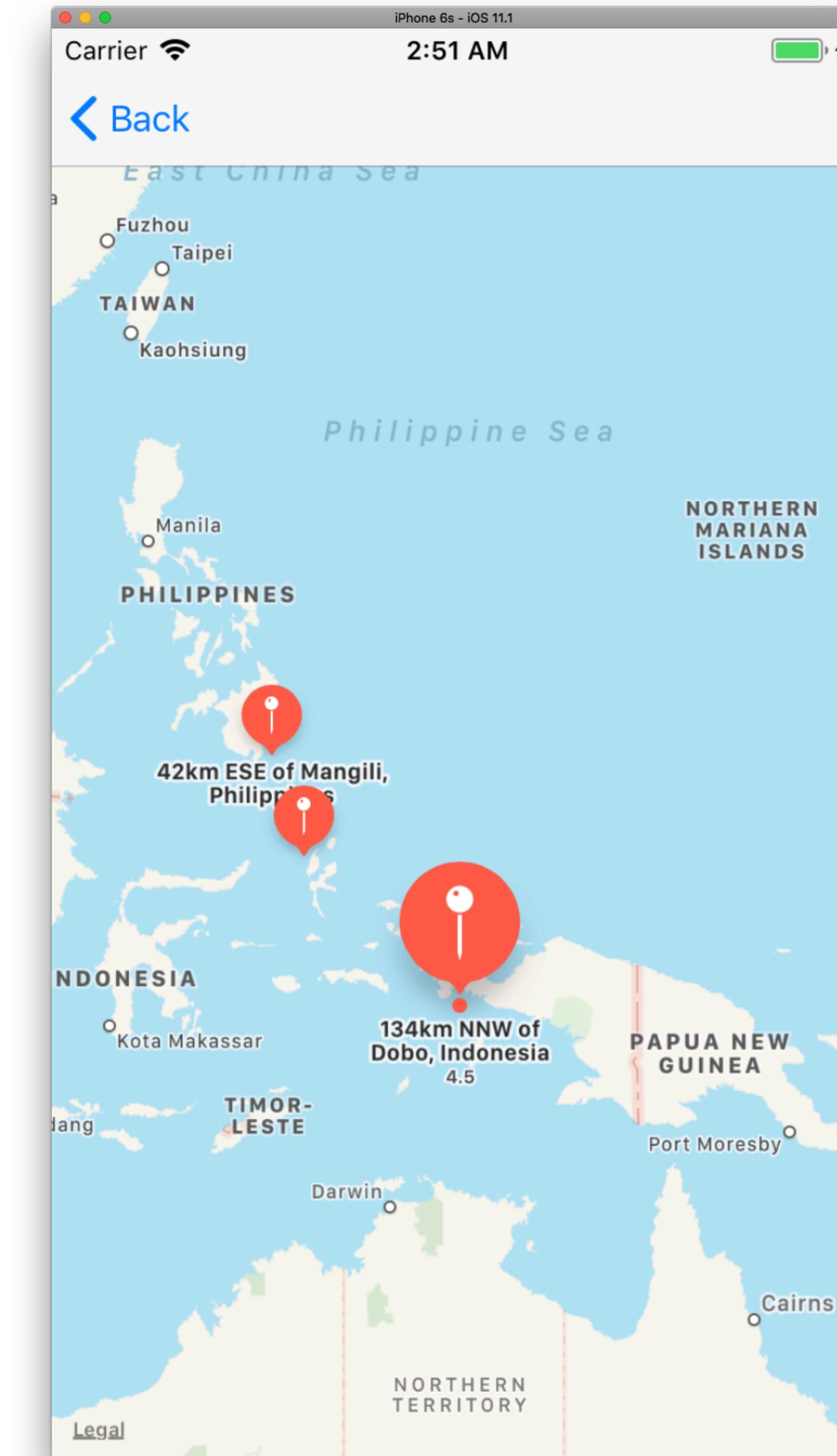




# 2

## MAP VIEW

- Shows recent earthquakes on a map.
- When a pin is tapped/selected then it shows the magnitude.





3

# TABLE VIEW

- Shows recent earthquakes in a list.
- Displays location, time and magnitude.

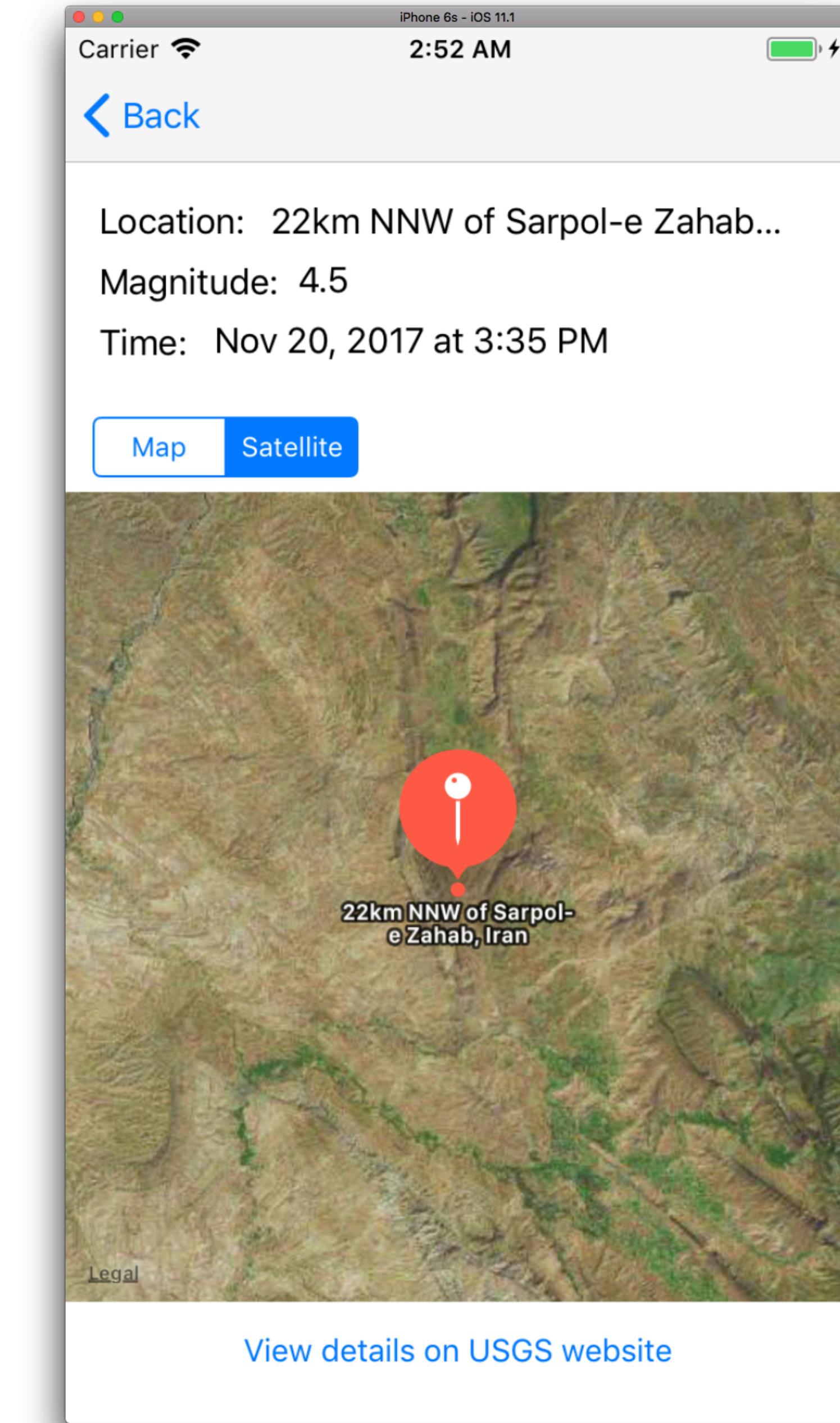
iPhone 6s - iOS 11.1	
Carrier	2:51 AM
<a href="#">Back</a>	
Kuril Islands	<b>4.8</b>
Nov 20, 2017 at 11:19 PM	
134km NNW of Dobo, Indonesia	<b>4.5</b>
Nov 20, 2017 at 10:19 PM	
42km ESE of Mangili, Philippines	<b>4.9</b>
Nov 20, 2017 at 8:16 PM	
South of the Kermadec Islands	<b>4.6</b>
Nov 20, 2017 at 8:05 PM	
194km SE of Mata-Utu, Wallis an...	<b>6.0</b>
Nov 20, 2017 at 6:51 PM	
Western Xizang	<b>4.7</b>
Nov 20, 2017 at 6:26 PM	
77km E of Tadine, New Caledonia	<b>4.9</b>
Nov 20, 2017 at 5:34 PM	
87km E of Tadine, New Caledonia	<b>4.8</b>
Nov 20, 2017 at 5:29 PM	
22km NNW of Sarpol-e Zahab, Ir...	<b>4.5</b>
Nov 20, 2017 at 3:35 PM	



# 4

## DETAILED VIEW

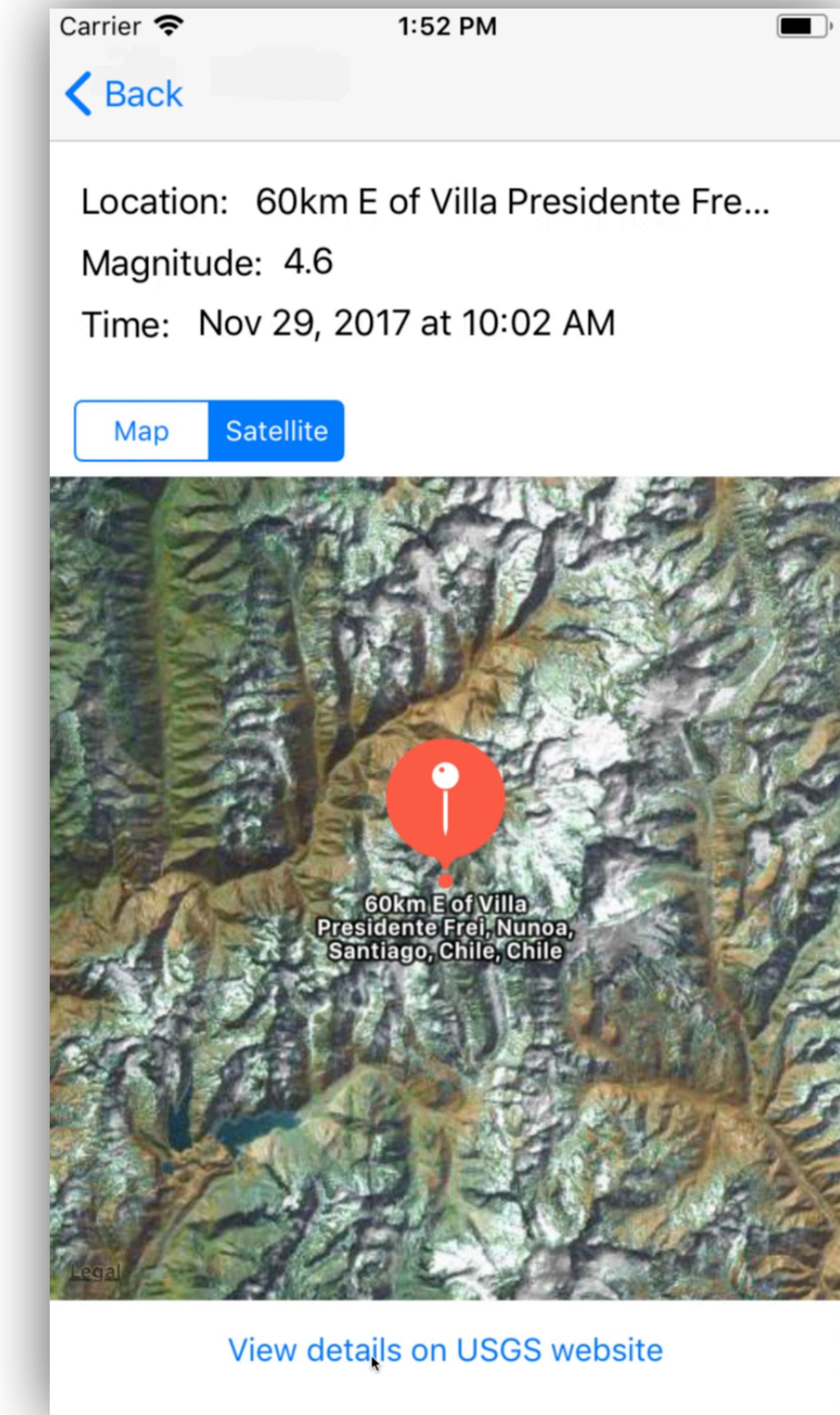
- Shows details about a single earthquake with an annotation on the map.
- Allows the user to toggle between normal map view and satellite view.



# 5

## WEB VIEW

- Shows more details about the earthquake on the website of the API.
- Spinner linked to web view delegate method 'didFinish'.

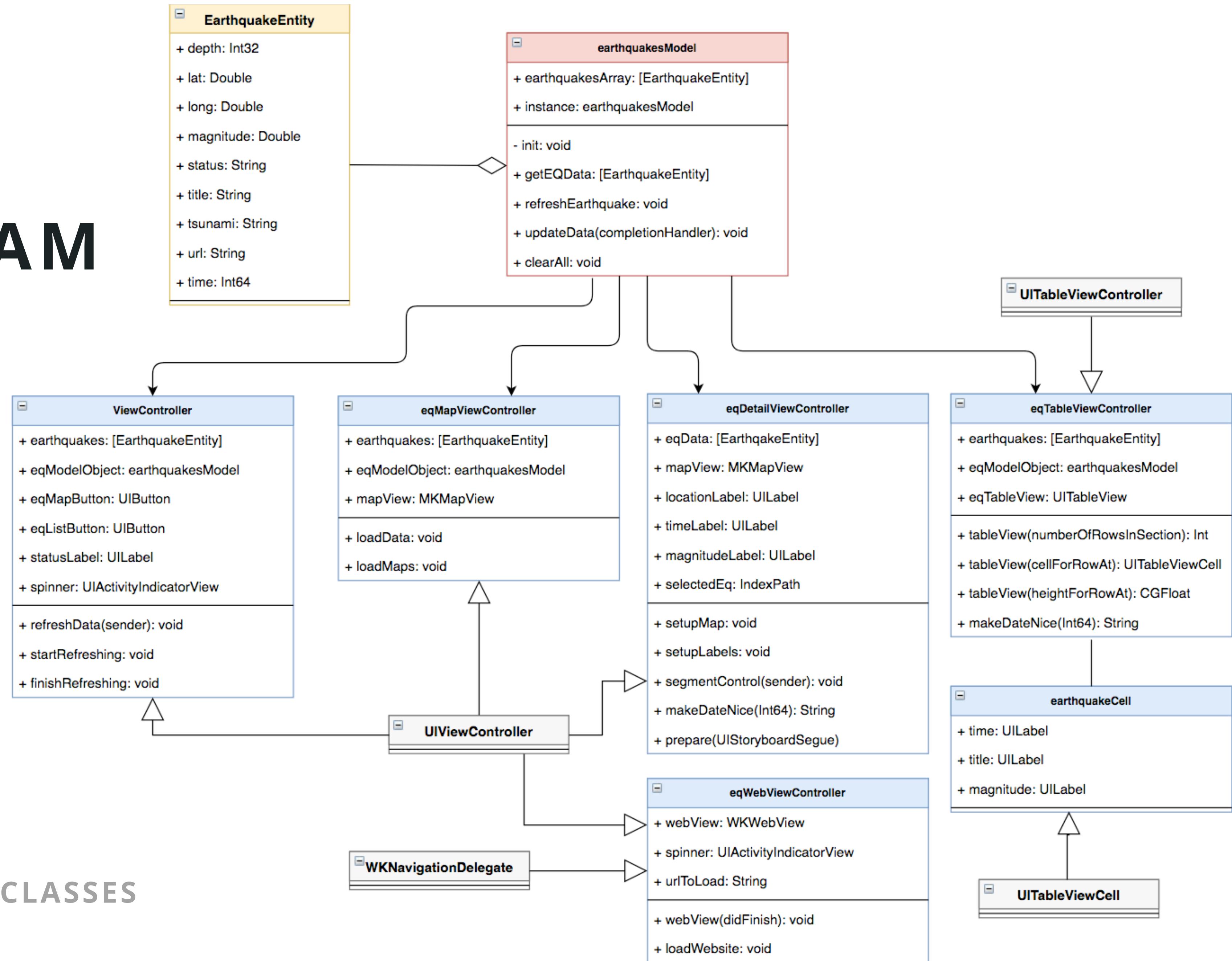




# CLASS DIAGRAM

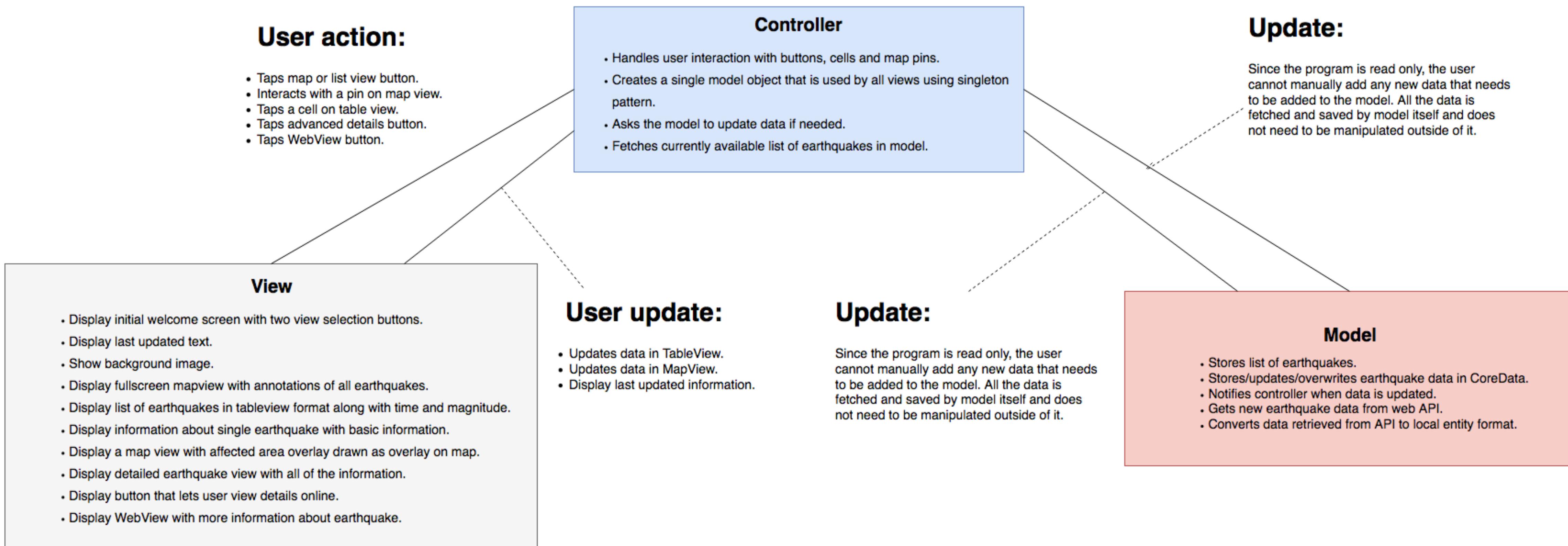
Suhail Ghafoor - Final project presentation

**COREDATA ENTITY  
MODEL (SWIFT)  
COCO TOUCH CLASS  
COCO TOUCH PARENT CLASSES**





# MVC ARCHITECTURE DIAGRAM





# **CONCLUSIONS**



# FEATURE WISH LIST

01

## SETTINGS PANE

Single settings pane with the ability to change units, set location of interest and push notifications.

02

## PUSH NOTIFICATIONS

Push notification that pushes to user if there was a massive earthquake anywhere in the world.

03

## REAL TIME UPDATES

Option to turn on real time updates so the app is constantly updating data while viewing map view.

04

## MAP OVERLAY

A circular overlay on map which roughly shows the affected area of the earthquake.

05

## SORT AND FILTER

Option to only view earthquakes of certain types and sort by time or magnitude.

06

## NEARBY EARTHQUAKES

Option to only show earthquakes that happen in X radius of the user's current location.



# LESSONS LEARNED

- The best class in terms of learning a practical and desirable skill.
- Project heavy approach works great.
- Less freedom when coding but much faster compared to conventional programming.
- Difficult to google issues due to frequent changes in swift.
- Keep final project simple.
- Class forms a good base if entering the world of mobile apps in future.



Thank you.