

**App Name:**

- CountryList

**Minimum OS Version:**

- iOS 15.0

**Used XCode Version:**

- 14.3.1

**Endpoint used :**

<https://gist.githubusercontent.com/peymanowmt/32dcb892b06648910ddd40406e37fdab/raw/db25946fd77c5873b0303b858e861ce724e0dcd0/countries.json>

**Goal:**

- Build an simple app to list all country name, region, code and capital
- Allow users to search by country name and capital.

**Used Design pattern:**

- MVVM (Model - View - Viewmodel)

**Language Used:**

- Swift

**Feature Highlight:**

- Used UISearchController and UITableView
- Used async / await
- Added test cases
- Created UI components by code except the default view controller that comes with the initial project setup

## Unit test coverage :

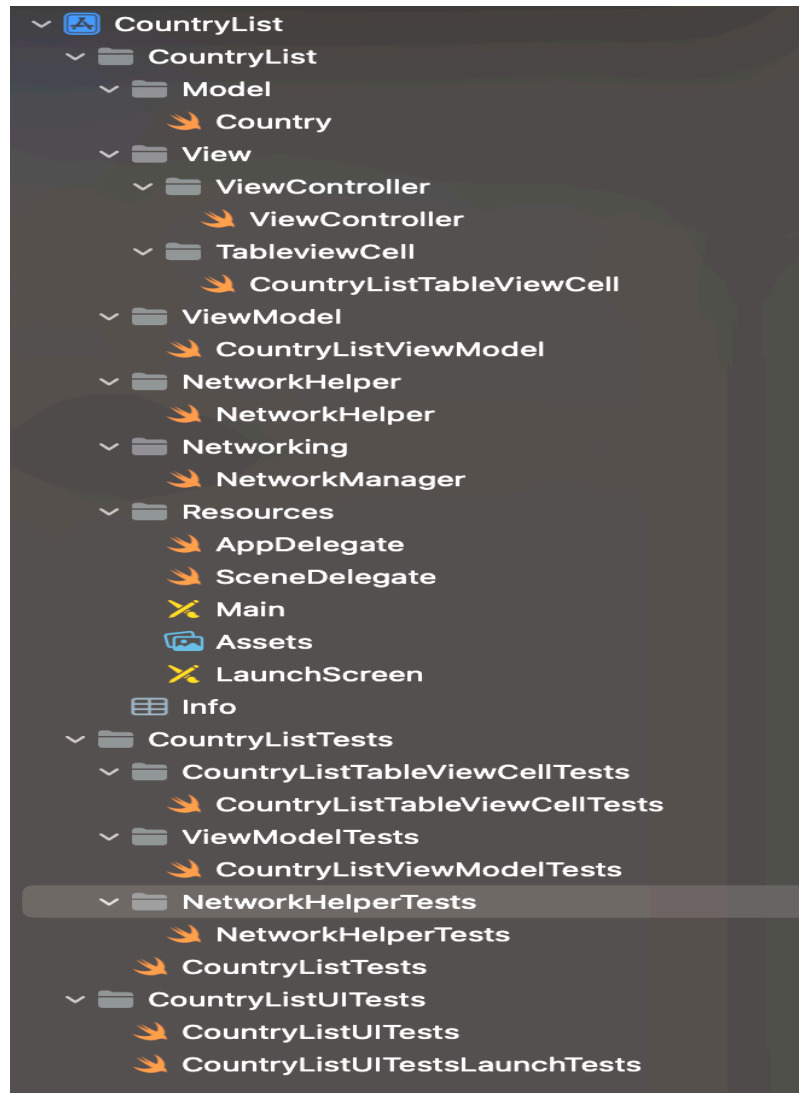
- NetworkHelperTests
- CountryListTableViewCellTests
- CountryListViewModelTests

All (16) Passed (16) Failed Skipped Expected Failures Mixed				
Tests	Duration	Duration (AppLaunc...	Time	
CountryListTableViewCellTests CountryListTests 2 passed (100%) in 0.02s				
testUpdateCellWithMissingCountryDeta...	0.01s			
testUpdateCellWithValidCountry()	0.01s			
CountryListTests CountryListTests 2 passed (100%) in 0.37s				
testExample()	0.01s			
testPerformanceExample()	0.36s		0.0000...	
CountryListViewModelTests CountryListTests 5 passed (100%) in 0.06s				
testAllStaticStrings()	0.01s			
testFilterCountryWithEmptyString()	0.01s			
testFilterCountryWithInvalidString()	0.01s			
testFilterCountryWithValidString()	0.01s			
testGetCountryListWithCountryRespons...	0.05s			
NetworkHelperTests CountryListTests 4 passed (100%) in 0.02s				
testGetCountryListWithFailureRespons...	0.01s			
testGetCountryListWithSuccessfulResp...	0.01s			
testParseAndCountryListWithErrorData()	0.01s			
testParseAndCountryListWithValidData()	0.01s			
CountryListUITests CountryListUITests 2 passed (100%) in 1m 27s				
testExample()	3s			
testLaunchPerformance()	1m 23s		1.47s	
CountryListUITestsLaunchTests CountryListUITests 1 passed (100%) in 9s				
testLaunch()	9s			

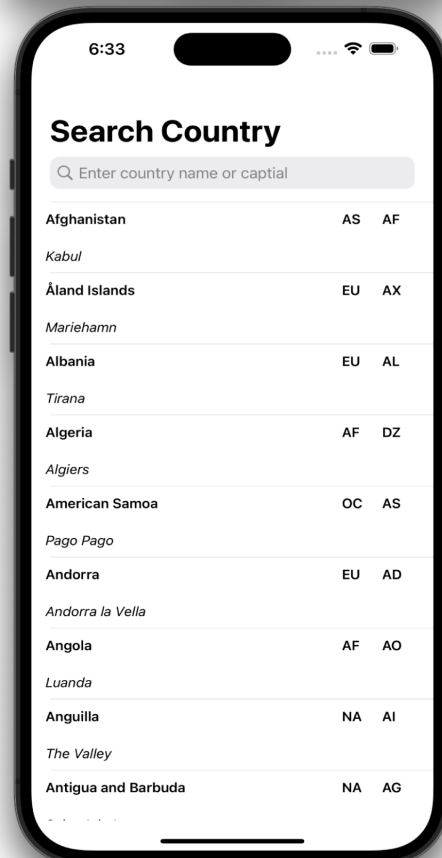
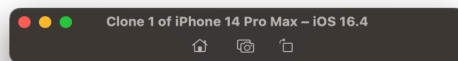
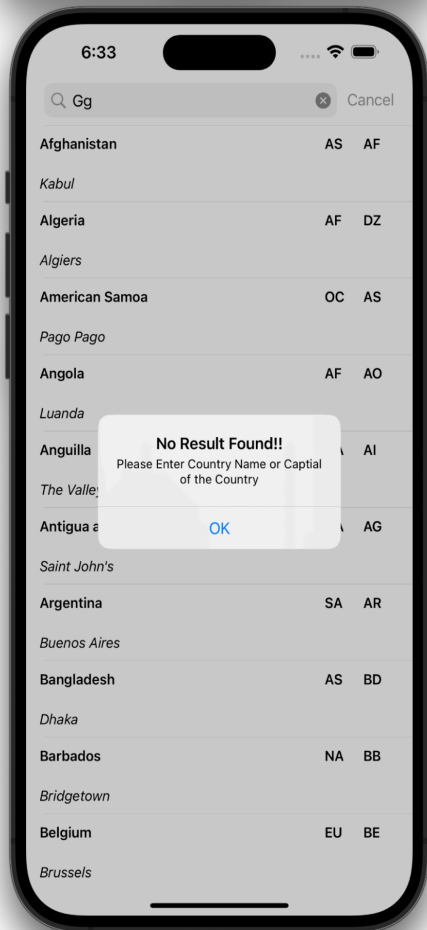
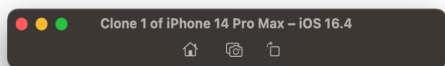
**Improvements:**

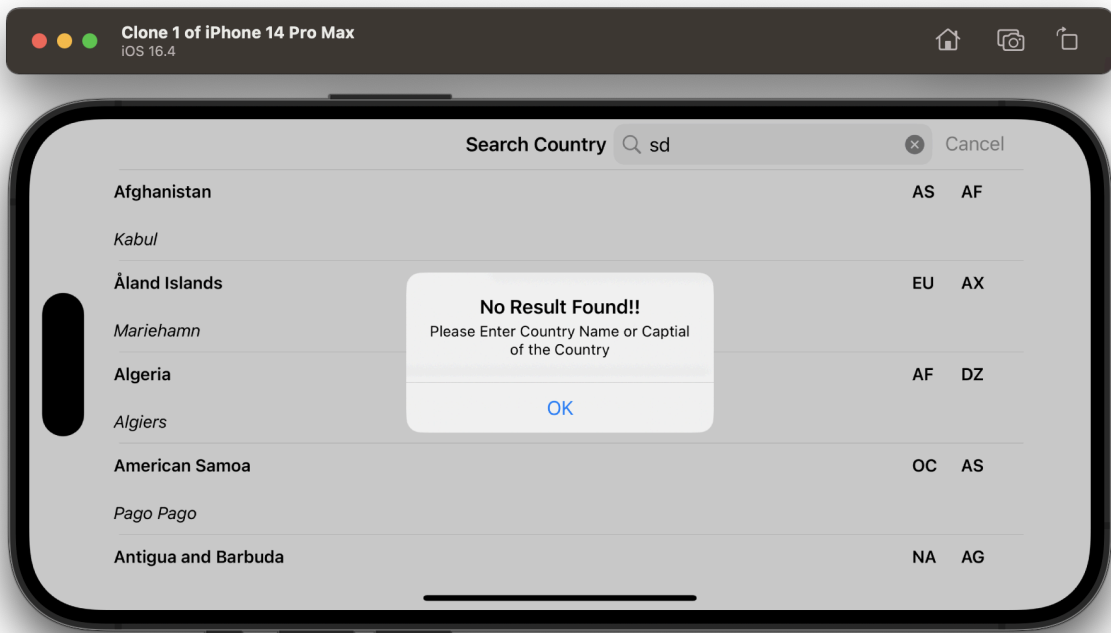
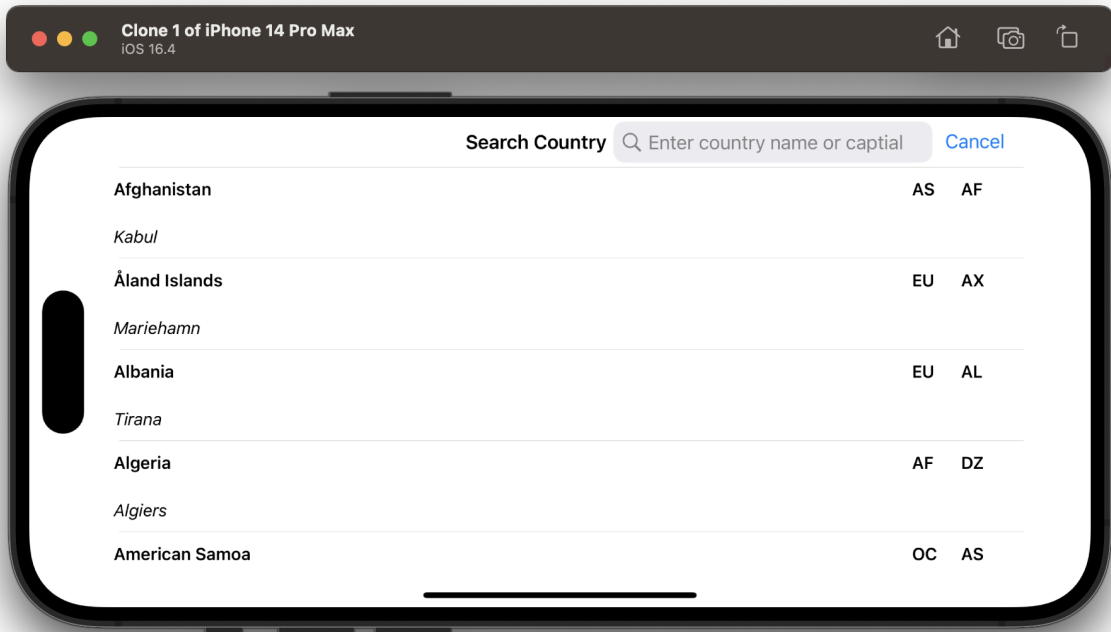
- Network activity indicator can be added
- Table view header or footer can be added with the search result count
- Current implementation will show generic alert (No Result Found.)for now, this can be changed to display custom alert for different types. (Ex: Error in connecting server, Error in connecting Server).
- As we have only one module I wrote parsing logic specific to the case that we need. This can be generalized and make it more reusable.
- If we have a clear idea about the http status code, we could define more error cases and return a particular error type.
- We could add 'N/A' in the model itself when the data is missing. Currently I am showing N/A in the UI. Adding in the Model will allow users to search by N/A as well.
- As current requirement have only one URL, directly used the Url, If we have multiple url and paths are there we could have added URL construction logic

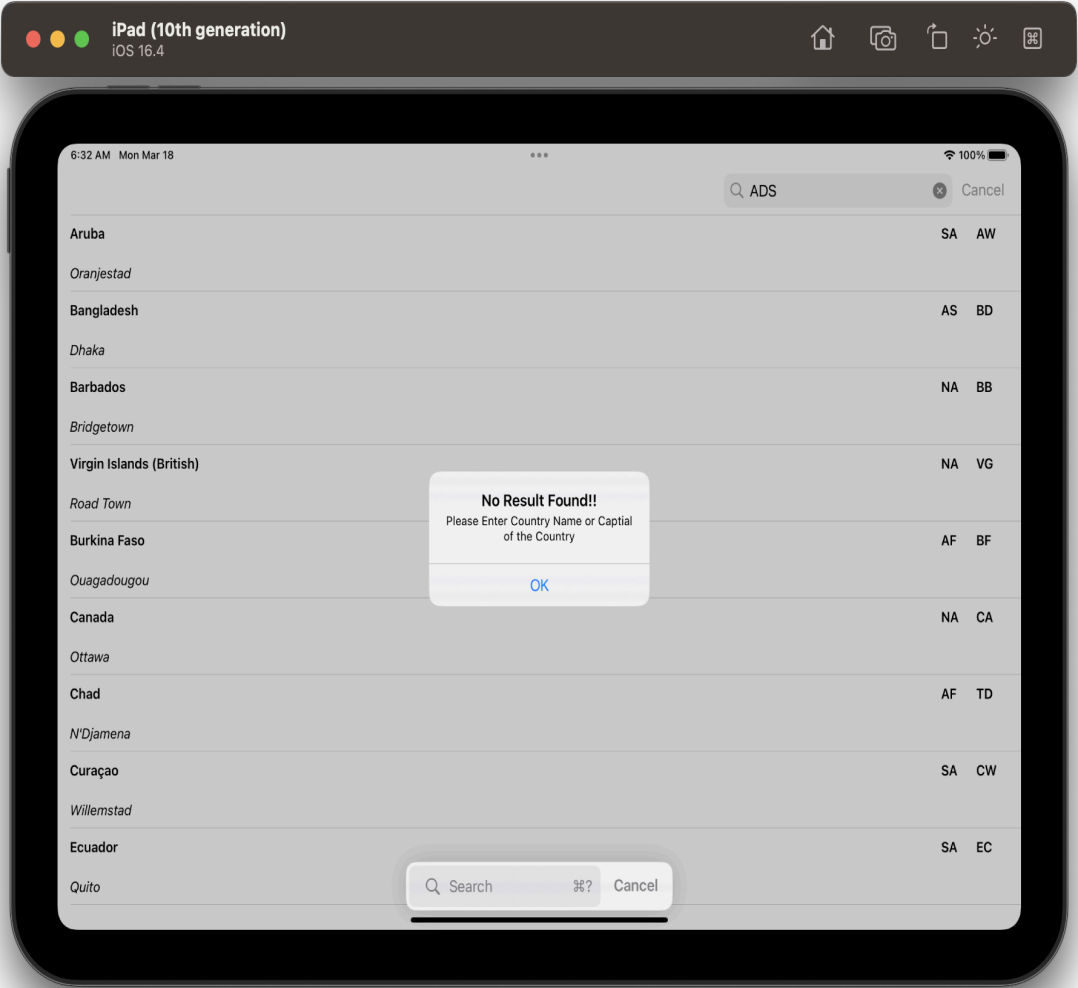
## Folder structure:



## Screenshots:







6:30 AM Mon Mar 18

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100%

Enter country name or c...

Search Country

AfghanistanASAF

Kabul

Åland IslandsEUAX

Mariehamn

AlbaniaEUAL

Tirana

AlgeriaAFDZ

Algiers

American SamoaOCAS

Pago Pago

AndorraEUAD

Andorra la Vella

AngolaAFAO

Luanda

AnguillaNAAI

The Valley

Antigua and BarbudaNAAG

Saint John's

ArgentinaSAAR

Buenos Aires

ArmeniaASAM

Yerevan

ArubaSAAW

Oranjestad

AustraliaOCAU

Canberra