

NYC Schools Challenge

How to run:

- . 1) Download the zip file and unzip it.
- . 2) Open `NYCSchool.xcodeproj` in xcode
- . 3) Run project (cmd + R or Product > Run)

Note: I developed the project on Xcode14 using Swift & UIKit. I tested it on both iOS15 and 16. Please let me know if you face any issues in building it.

Focus Area:

1. I have focused on Scalable, extensible architecture which handles error and exceptions gracefully.
2. I have created a minimum UI which shows all the relevant information in a list view (School name, Phone and location/ neighbourhood).
3. When tap on any "School" card, it will open a detail pafe which shows "SAT score" information.

Technical/Functional consideration and tradeoffs:

1. I'm using MVVM (Model-view-viewmodel) architecture for this project. As this is a sample project, I wanted to create a simple but extensible and testable architecture. MVVM has its pro and cons but for this project, it has everything needed with capabilities for a future enhancement.
2. I handle different kinds of errors (decoding, bad requests, network unavailability etc).

3. I'm showing an empty screen with a message in case of an error. I wanted to build a minimal viable product which handles all the exceptions and gives meaningful information to a user when an error occurs. That's why I decided to show error messages.
4. I have built UI in SwiftUI.
5. When there is an empty response, I'm showing a message on the screen. This message is same as error message.
6. I have written a unit test `NetworkManagerTests` to validate the `valid` and `malformed` json.
7. Tested it on small & large screen size with landscape and portrait orientation.

Future Enhancement:

If I would have more time, I would:

- Add a coordinator which would follow the coordinator pattern. It would be responsible for navigation between screens.
- This Json response is very large, I would add `pagination` and `pullToRefresh` for better user experience.
- Snapshot test for regression

- Instead of adding “hardcoded string” for labels, I could create a localized object which would have all strings saved.
- UI enhancement for School list.
- Will add caching layer to cache information for faster load.
- `Search feature` for School list as it would be super helpful to user

3rd Party Library:
None

How much time did I spent:
Around 3-4 hours throughout week in chunks