

Assignment 3 (Due March 19)

Requirements

1. Fetch images of flags from the network as in the previous iOS assignment but this time, fetching should be done asynchronously.
2. Display the size of each image and the time taken to download the image. This should be displayed in a new table when a cell row is selected from the main screen. The new table should be pushed into the navigation bar of the main screen. This new screen should have title as "Image Details". A screenshot is attached for clarity.
3. The list of countries should be the same as used in the previous assignment. Also, the url for the image remains the same.
4. The app should be named "Flags Async" and the main screen navigation bar should have title "Flags"

Details

By asynchronous, it means that the images should be fetched separately and not in the main thread. So the names of the countries should be displayed first and the fetching of images should be continued in a separate thread. When the image is fully downloaded, you should notify the main thread and the table should be populated with the corresponding image. You do not have to implement threads explicitly for this. You need to implement `NSURLConnection` which internally creates a thread. This is exactly similar to what you see in the App Store on your iPhone. The App Icons are always loaded "Lazily" after the app name appears. The idea is that you need to load only those icons which are 'really' needed, when the user actually stops scrolling and looks at the screen, not the ones which are just passed by while scrolling. For better look and feel, a placeholder image should be kept inside the project which you should display initially when the flag image is yet to be loaded. Once the image is fetched, replace the placeholder image with the flag icon. Also calculate the download time and the image size at this instance.

I am attaching 2 sample projects:

1. Lazy Table Images. This project is a sample project published by Apple. Use this project as a reference. You need to do very much similar to this.
2. Flags2. This project you can use it as a starting point. I have created this project for you and have implemented few functions for you. Only couple of functions you need to implement to get what is required. Currently, this app loads the placeholder images. The `NSURLConnection` is also implemented for you. You need to understand what the code does and fill up the code at few places. It's critical to understand how the flow of data works from one object to another. I have put my comments at various places for your understanding. Read up the delegate and protocol for better understanding.

Note: This project may not work on latest iOS as it's created on Snow Leopard, although the idea remains the same.

The projects are uploaded under Files and Resources on your courseworks.

Screenshots



Grading

1. Should meet the required functionalities.
2. Should free the objects allocated.