

Assignment: Superhero Randomizer App (via Packages)

Objective

Create an iOS application that fetches and displays random superhero information from the [SuperHero API](https://akabab.github.io/superhero-api/api/). This project will help you understand networking in iOS, JSON parsing, and UI design. You need to use external libraries, for making network requests and handling image configuration.

Project Description

Your task is to develop an app that:

- **Fetches a random superhero** when a button is tapped.
- **Displays detailed information** about the superhero, using at least **10 attributes** from the API response.
- **Provides a user-friendly interface** that is visually appealing and easy to navigate.

Requirements

1. Networking

- Use **Alamofire package** to make network requests.
- User **Kingfisher package** to set image in UIImage
- Fetch data from the SuperHero API: <https://akabab.github.io/superhero-api/api/>
- Ensure proper error handling for network requests

2. Random Superhero Functionality

- Implement a “Randomize” button that fetches and displays a random superhero each time it’s tapped.
- Ensure randomness by selecting from the full list of superheroes provided by the API.

3. Display Superhero Information

- Show at least **10 attributes** from the superhero’s data, such as:
 - *Name*
 - *Full Name*
 - *Intelligence*
 - *Strength*
 - *Speed*
 - *Image*
- Include the superhero’s image in the display.

4. User Interface

- Design a clean and intuitive UI using **UIKit**.
- Utilize **Auto Layout** to ensure the app looks good on all device sizes and orientations.

5. Code Quality

- Write clean, maintainable, and well-documented code.
- Follow **Swift coding conventions** and best practices.

6. Error Handling

- Gracefully handle errors such as failed network requests or JSON parsing errors.
- Provide user feedback in case of errors

7. Bonus (Optional)

- **Animations:** Add animations when transitioning between superheroes.

8. Submission Guidelines

- Submit your complete Xcode project in your git repo.
- Include a **video demonstration of your project**
- Ensure all assets and dependencies are included, and the project builds successfully.

9. Tips

- **Start Early:** Give yourself plenty of time to work through challenges.
- **Test Thoroughly:** Regularly test your app on different devices or simulators.
- **Ask Questions:** If you're unsure about any aspect of the assignment, don't hesitate to reach out.

10. Academic Integrity

This assignment must be completed individually. Plagiarism or copying code from others is strictly prohibited and will result in a failing grade.