Tacx

Test assignment for the position of Windows desktop developer

Assessment assignment for Tacx in which you implement a sample application that displays data from the collection available through the Art Institute of Chicago API.

Task description

The case

The Art Institute of Chicago shares its singular collections with the world. They also provide an API to allow us to access the metadata of their collection. We want to display a subset of that API's object metadata: an overview of thumbnails of an artist of choice present in the Art Institute of Chicago, including the title of the work. (Of course, this overview should not be empty.) When the user selects a work of art you navigate to a detail screen and show some relevant data (of your choice) and a large image.

For information about the API see https://api.artic.edu/docs/.

We ask you to spend at least a few hours on this task. If you cannot complete everything within a reasonable time, please include in the documentation what remains to be done and a brief description of the approach.

Requirements

User interface

- The user interface should be intuitive, simple and modern. Use any colors, icons or graphic assets you like.
- There should be a thumbnail view and a detailed view. Navigation is up to you.
- Add any animations or interactions you like (e.g. pull-to-refresh).

Caching

- The application must cache the data obtained from the API to local storage, including the images.
- Cached data should be refreshed every 5 minutes. This is not needed for image data.
- When the application starts and data is available in the cache, do not call the API if the data has not yet expired.

Resilience

- The user should be informed if an error occurred while fetching data.
- If there is no network connection available when a request needs to be made, the app should park the call and execute it once the connection is available again.

Testing

- Cover your code with unit tests as much as possible.

Evaluation

Your work will be reviewed and scored based on the following criteria: Coding Style, Applied Design Patterns and Design Principles, Coding Best Practices, Testing, Creativity and Uniqueness. If it meets our requirements, you will be invited to the following stage where you will give a brief presentation of your solution.

Thank you for your time!