

Problem

Build a Kotlin Android app for a photo grid, similar to Instagram's profile view, that displays photo thumbnails 3 to a row. Tapping on a thumbnail opens the full size of the image. The app also has a button for taking photos using the device's camera and adding them to the list.

Requirements

- The photos populating the grid should be asynchronously loaded from the photo library.
- New photos, taken with the device's camera, should be added to the end of the grid.
- In the grid view photos should be displayed as a square (cropped), but when tapped to view they can be displayed in their original aspect ratio.
- The user should be able to delete photos from the grid view using a long-press gesture.
- App functionality should be appropriately divided into well-defined components.
- The app should have a user-friendly, production-ready look and feel. Creatively stylize the elements as you see fit.
- Don't use any 3rd party libraries or frameworks.
- Include screenshots in a README.md file.