CS 3500: Application Development

Assignment: Android Practice

Requirements

Create an Android application for mobile devices that demonstrates some of the more common user interface components used by mobile applications. This assignment will familiarize you with the Android operating system and software development kit, and help you explore the process of learning a new software framework. Use the following 3-part tutorial to implement the requirements listed below:

Part 1 Part 2 Part 3

- Use Android Studio to create a new Android project.
- Use a recent version of the Android SDK (version 15 or higher).
- Use the Android emulator or an Android device to run and test your application.
- Use at least one `LinearLayout` and one `RelativeLayout` in your application.
- Use at least one `TextView` and one `ImageView` within your layouts.
- Use at least one `EditText` and capture/use its text in some way.
- Use at least one `Button` and implement a listener that triggers some action.
- Use at least one `ListView` and use an adapter to populate its content.
- Use `SharedPreferences` to persist and read data for some purpose.
- Use a `Toast` to display a brief message or alert to the user.
- Use an `AlertDialog` to display a message or capture user input.
- Use Gradle to manage third-party project dependencies.
- Use an HTTP library (such as `Android Async Http` or `Retrofit`) to retrieve JSON data from a remote API.
- Use a library (such as `Picasso`) to load and display remote images.
- Use a custom layout and custom adapter to customize the appearance and content of your `ListView`.
- Display a progress indicator to the user when loading remote content.
- Implement at least one additional `Activity` to display additional details for each list item.
- Use an `Intent` to start the new `Activity` with any necessary parameters.

Resources

- Refer to the Android developer documentation as needed when completing your assignment.

Submission

- Show your completed assignment to the instructor during class or office hours to receive credit.