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.