## Android Project Structure

An Android project in Android Studio follows a specific structure that organizes various files and resources essential for building your app.

**Root Directory:** This is the top-level directory that contains all the files and subdirectories for your project.

**Important Subdirectories:**

* **app:** This directory contains the core source code for your application. It houses several subdirectories and files:
  + **manifests:** Contains the AndroidManifest.xml file, which is the foundation of your app. It defines essential information like app name, components (activities, services, etc.), permissions, and target Android API level.
  + **java:** (or **kotlin** if you are using Kotlin) This directory stores your app's source code files (.java or .kt) for activities, services, broadcast receivers, and other custom classes. These files define the logic and behavior of your app.
  + **res:** This directory holds various app resources:
    - **layout:** Contains layout resource files (.xml) that define the visual structure of your app's user interfaces (UIs).
    - **drawable:** Stores image resources (.png, .jpg, etc.) used within your app's UI elements like buttons or backgrounds.
    - **values:** Holds various resource files like strings (text displayed within the app), styles (defining visual properties), and colors used throughout the app.
    - (Other resource types like animations, menus, etc., can also be present here).
  + **AndroidManifest.xml:** As mentioned earlier, this file defines the core metadata about your app, including its name, components, permissions, and target API level.
* **gradle:** This directory contains build configuration files written in Groovy language. These files define how your project is built, including dependencies on external libraries and instructions for generating the final APK (Android Package Kit) for deployment.
* **libs:** (Optional) This directory can hold external library files (.aar files) that your project depends on.

**Additional Files:**

* **build.gradle:** Located at the root directory, this file defines project-wide build configurations and dependencies.
* **local. properties:** (Optional) This file can store local development machine-specific settings that are not intended for version control.