ITW202: Mobile Application

Unit IV: Developing for Android

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The Android Support Library

What are the Android support libraries?

- The Android SDK tools include a number libraries collectively called the Android Support Library.
- This package of libraries provides several features that are not built into the standard Android framework, and provides backward compatibility for older devices.
- Include any of these libraries in your app to incorporate that library's functionality.

The Android Support Library

Features

Support library features

Support libraries provide:

- Backward-compatible versions of components
- Additional layout and UI elements, such as RecyclerView
- Different form factors, such as TV, wearables
- Material design and other new UI components for older Android versions and more. . . .

Support libraries versions

- Libraries for Android 2.3 (API level 9) and higher
- Recommended you include the v4 support and v7 appcompat libraries for the features your app uses

The Android Support Library

Libraries

v4 Support Libraries

- Largest set of APIs
- App components, UI features
- Data handling
- Network connectivity
- Programming utilities

v4 Support Libraries

- compat—compatibility wrappers
- core-utils—utility classes (eg., AsyncTaskLoader)
- core-ui—variety of UI components
- media-compat—back ports of media framework
- fragment—UI component

v7 Support Libraries

- Backwards compatibility
- TV-specific components
- UI components and layouts
- Google Cast support
- Color palette
- Preferences

v7 Support Libraries

- appcompat—compatibility wrappers
- cardview— new UI component (material design)
- gridlayout—rectangular cell (matrix) Layout
- mediarouter—route A/V streams
- palette—extracting color from an image
- recyclerview—efficient scrolling view
- preference—modifying UI settings

The Android Support Library

Using support libraries

Support libraries

Include in build.gradle of module to use with your project

Add dependency to build.gradle

1. open build.gradle (Module: app)
2. In the dependencies section, add dependency for support library if not already included from template
   implementation 'com.android.support:appcompat-v7:26.1.0'
3. Update the version number, if prompted
4. Sync Now when prompted

min sdk version Vs target sdk version Vs compile sdk version

- The **min sdk version** is the earliest release of the Android SDK that your application can run on.

min sdk version Vs target sdk version Vs compile sdk version

- The **target sdk version** is the version your application was targeted to run on. Ideally, this is because of some sort of optimal run conditions. If you were to "make your app for version 19", this is where that would be specified. It may run on earlier or later releases, but this is what you were aiming for. This is mostly to indicate how current your application is for use in the marketplace, etc.

min sdk version Vs target sdk version Vs compile sdk version

- The **compile sdk version** is the version of android your IDE (or other means of compiling I suppose) uses to make your app when you publish a .apk file. This is useful for testing your application as it is a common need to compile your app as you develop it. As this will be the version to compile to an APK, it will naturally be the version of your release. Likewise, it is advisable to have this match your target sdk version.


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THANK YOU