19CSI605 - Mobile Application Development

Support Libraries

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Support Libraries

About the Android Support Library

- 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.

Support Libraries

Features

The features of the Android Support Library include:

- Backward-compatible versions of framework components.
- Additional layout and UI elements.
- Support for different device form factors, such as TV or wearables
- Design support
- Various other features such as palette support, annotations, percentage-based layout dimensions, and preferences

Support Libraries

Versions

- Each package in the support library has a version number in three parts (*x.y.z*) that corresponds to an Android API level, and to a particular revision of that library.

  For example, a support library version number of *22.3.4* is version 3.4 of the support library for API 22.

- As a general rule, use the most recent version of the support library for the API your app is compiled and targeted for, or a newer version.

  For example, if your app targets API 26, use the version 26.*x.x* of the support library.

- You can always use a newer support library

  For example, if your app targets API 22 you can use version 25 or higher of the support library.

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  For example, if your app targets API 26, use the version 26.*x.x* of the support library.

- You can always use a newer support library than the one for your targeted API.

- For example, if your app targets API 22 you can use version 25 or higher of the support library.

Support Libraries

Support libraries and features

1.v4 support library

- The v4 support libraries include the largest set of APIs compared to the other libraries, including support for app components, user interface features, accessibility, data handling, network connectivity, and programming utilities

The v4 support libraries include these specific components:

- ✔ v4 compat library
- ✔ v4 core-utils library
- ✔ v4 core-ui library
- ✔ v4 media-compat library
- ✔ v4 fragment library.

Support Libraries

Support libraries and features

2.v7 support library

- The v7 support library includes both compatibility libraries and additional features.
- It includes all libraries and dependencies of v4.
- The v7 support libraries include these specific components:

✔ v4 compat library

✔ v4 card view library

✔ v4 gridlayout library

✔ v4 mediarouter library

✔ v4 palette library.

✔ v7 recyclerview library

Support Libraries

Setting up and using the Android Support Library

- The Android Support Library package is part of the Android SDK, and available to download in the Android SDK manager.
- To set up your project to use any of the support libraries, use these steps:

1. Download the support library with the Android SDK manager, or verify that the support libraries are already available.
2. Find the library dependency statement for the support library you're interested in.
3. Add that dependency statement to the dependencies section of your build.gradle (Module: app) file

Support Libraries

Download the support library

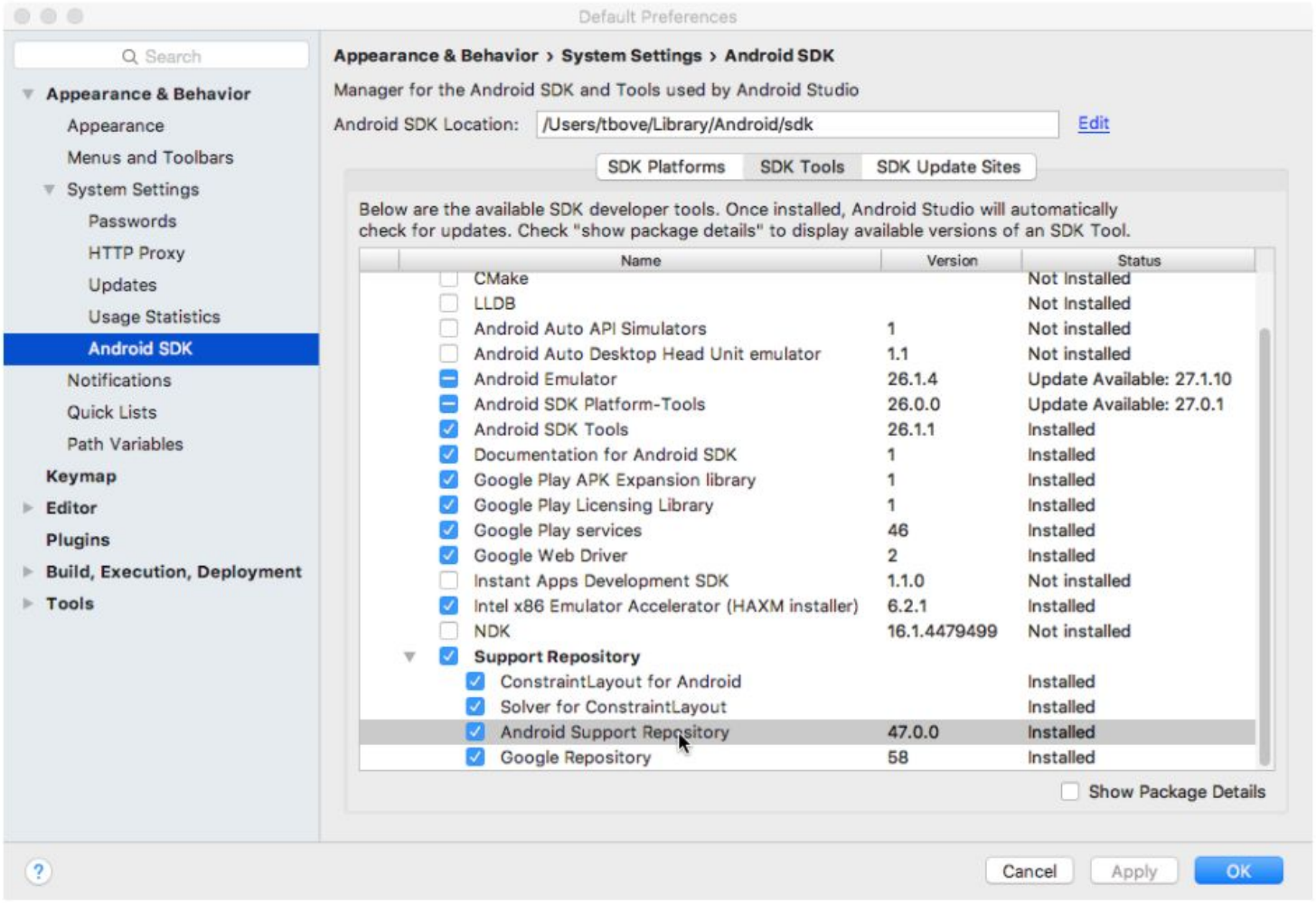
- In Android Studio, you'll use the Android Support Repository—the repository in the SDK manager for all support libraries—to get access to the library from within your project.
- You may already have the Android support libraries downloaded and installed with Android Studio.

To verify that you have the support libraries available, follow these steps:

1. In Android Studio, select **Tools > Android > SDK Manager**, or click the SDK Manager icon. The SDK Manager preference pane appears.
2. Click the **SDK Tools** tab and expand **Support Repository**, as shown in the figure below.

Support Libraries

Download the support library



Support Libraries

1. Look for **Android Support Repository** in the list. If **Installed** appears in the Status column, you're all set. Click **Cancel**.
2. If **Not installed** or **Update Available** appears, click the checkbox next to **Android Support Repository**. A download icon should appear next to the checkbox. Click **OK.**
3. Click **OK** again, and then **Finish** when the support repository has been installed.

Support Libraries

Find a library dependency statement

- To provide access to a support library from your project, you add that library to your Gradle build file as a dependency.
- Dependency statements have a specific format that includes the name and version number of the library.

1. Visit the Support Library Features page on developer.android.com.
2. Find the library you're interested in on that page, for example, the Design Support Library for Material Design support.
3. Copy the dependency statement shown at the end of the section. For example, the dependency for the design support library looks like this:

```
com.android.support:design:26.1.0
```

Support Libraries

Add the dependency to your build.gradle file

- The Gradle scripts for your project manage how your app is built, including specifying the dependencies your app has on other libraries.
- To add a support library to your project, modify your Gradle build files to include the dependency to that library you found in the previous section.

1. In Android Studio, make sure the Project > Android pane is open.
2. Expand Gradle Scripts and open the build.gradle (Module: app) file
3. Locate the dependencies section near the end of the file.
4. Add a dependency for the support library that includes the statement you copied in the previous task

THANK YOU