

Practical 1**Building a simple Hello World Application****Steps to Install Android Studio**

Step – 1:

Head over to bellow link to get the Android Studio executable or zip file .

<https://developer.android.com/studio/#downloads>

Step – 2:

Click on the download android studio button .



Android Studio provides the fastest tools for building apps on every type of Android device.

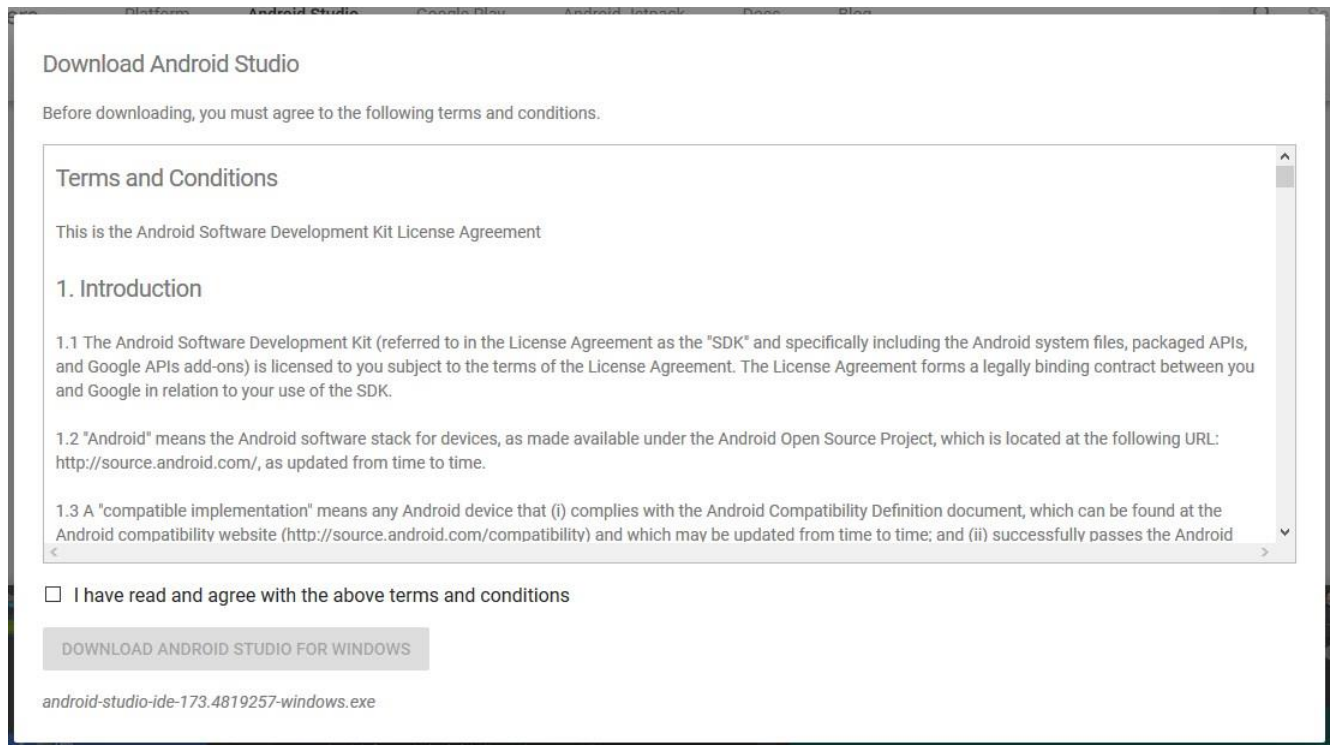
DOWNLOAD ANDROID STUDIO

3.1.3 for Windows 64-bit (758 MB)

DOWNLOAD OPTIONS

RELEASE NOTES

Click on the “I have read and agree with the above terms and conditions” checkbox followed by the download button.



Click on save file button in the appeared prompt box and the file will start downloading.

Step – 3:

After the downloading has finished, open the file from downloads and run it .

It will prompt the following dialogue box

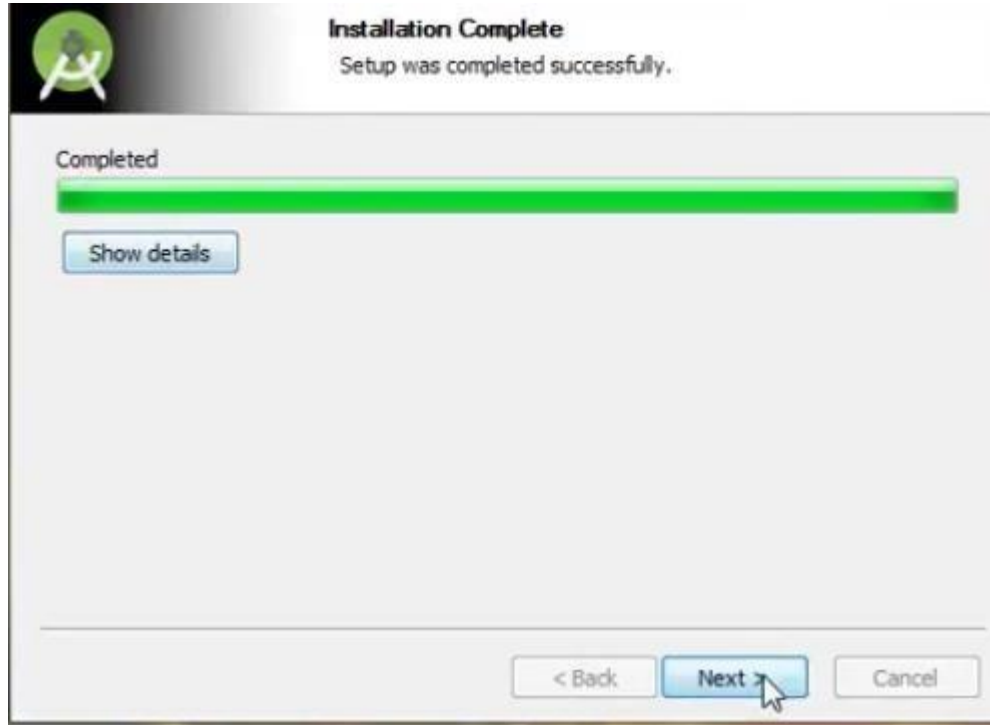


Click on next.

In the next prompt it'll ask for a path for installation. Choose a path and hit next.

Step – 4:

It will start the installation, and once it is completed, it will be like the image shown below



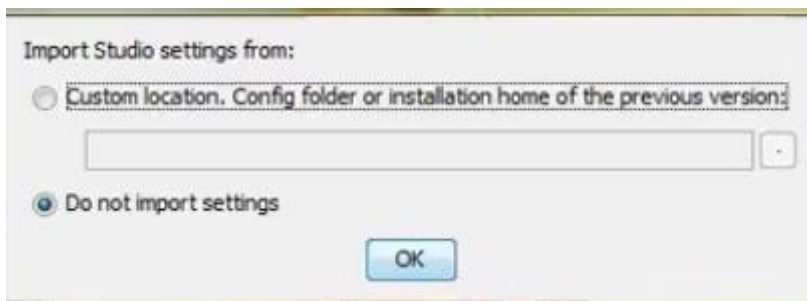
Click on next



Step – 5 :

Once “Finish” is clicked, it will ask whether the previous settings needs to be imported [if android studio had been installed earlier], or not.

It is better to choose the ‘Don’t import Settings option’ .

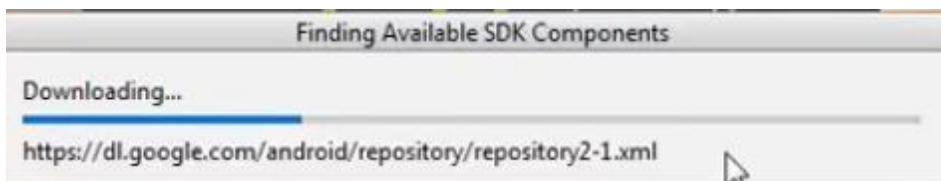


Step – 6 :

This will start the Android Studio.

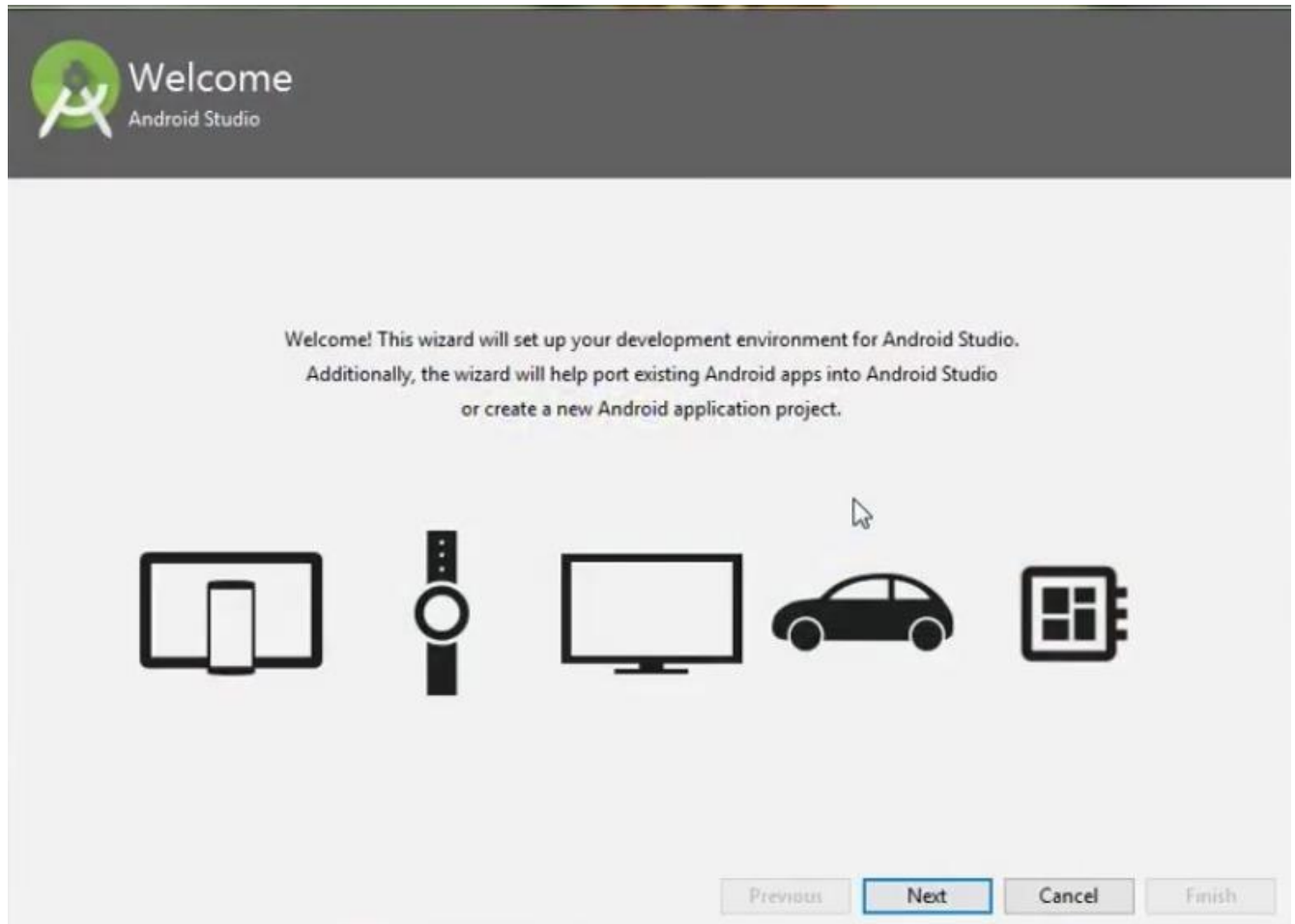


Meanwhile it will be finding the available SDK components .

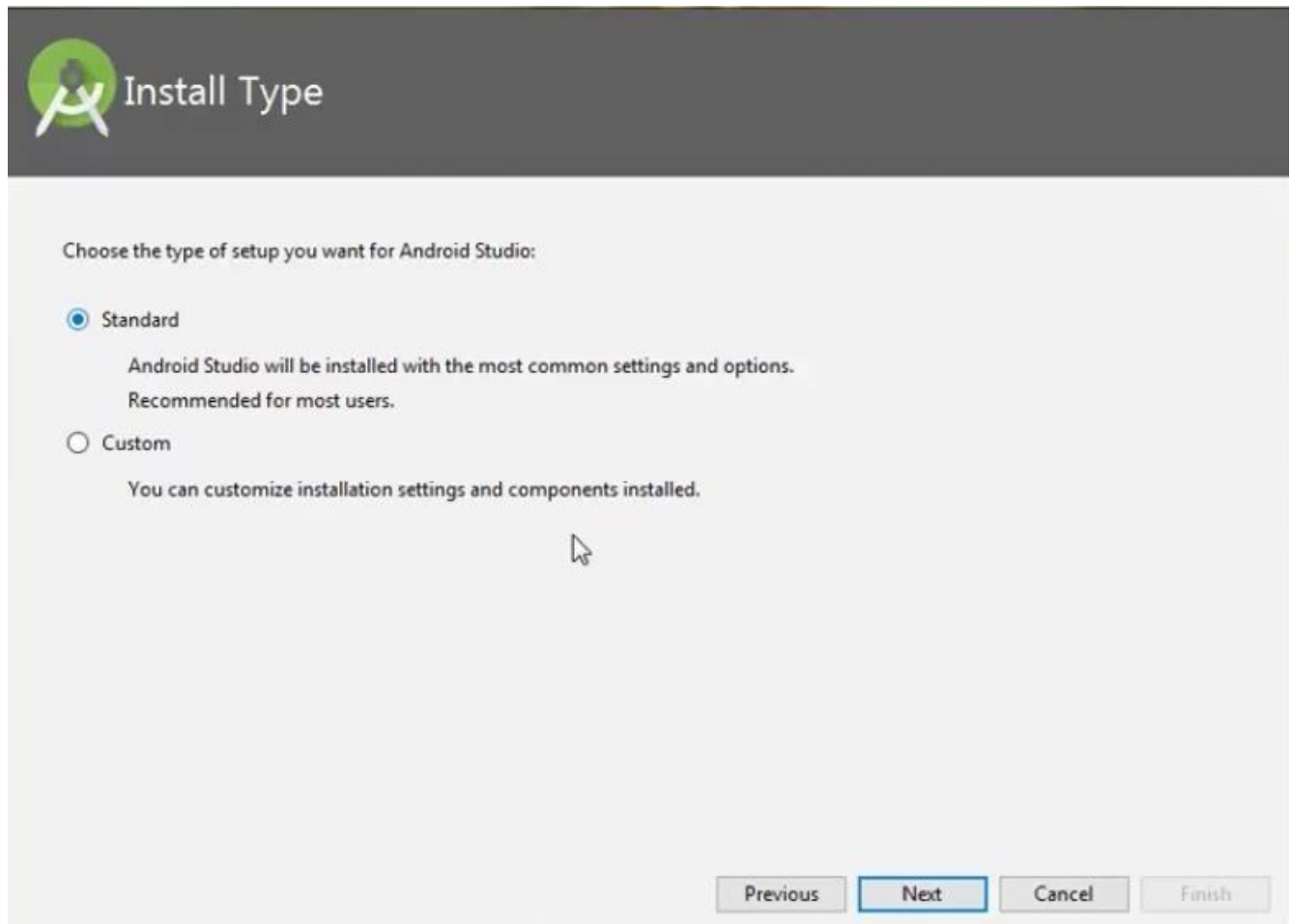


Step – 7:

After it has found the SDK components, it will redirect to the Welcome dialog box .



Click on next .

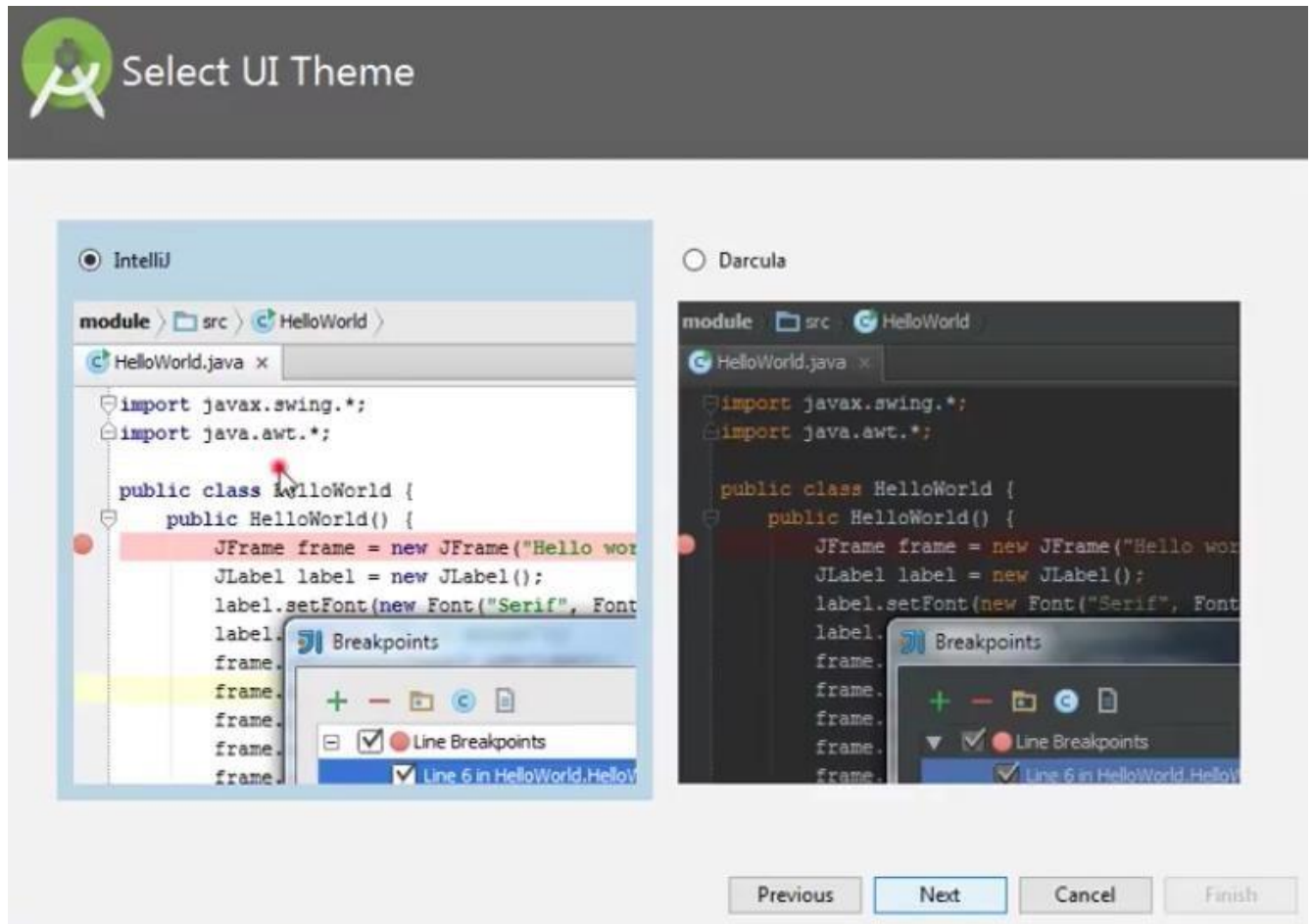


Choose Standard and click on Next.

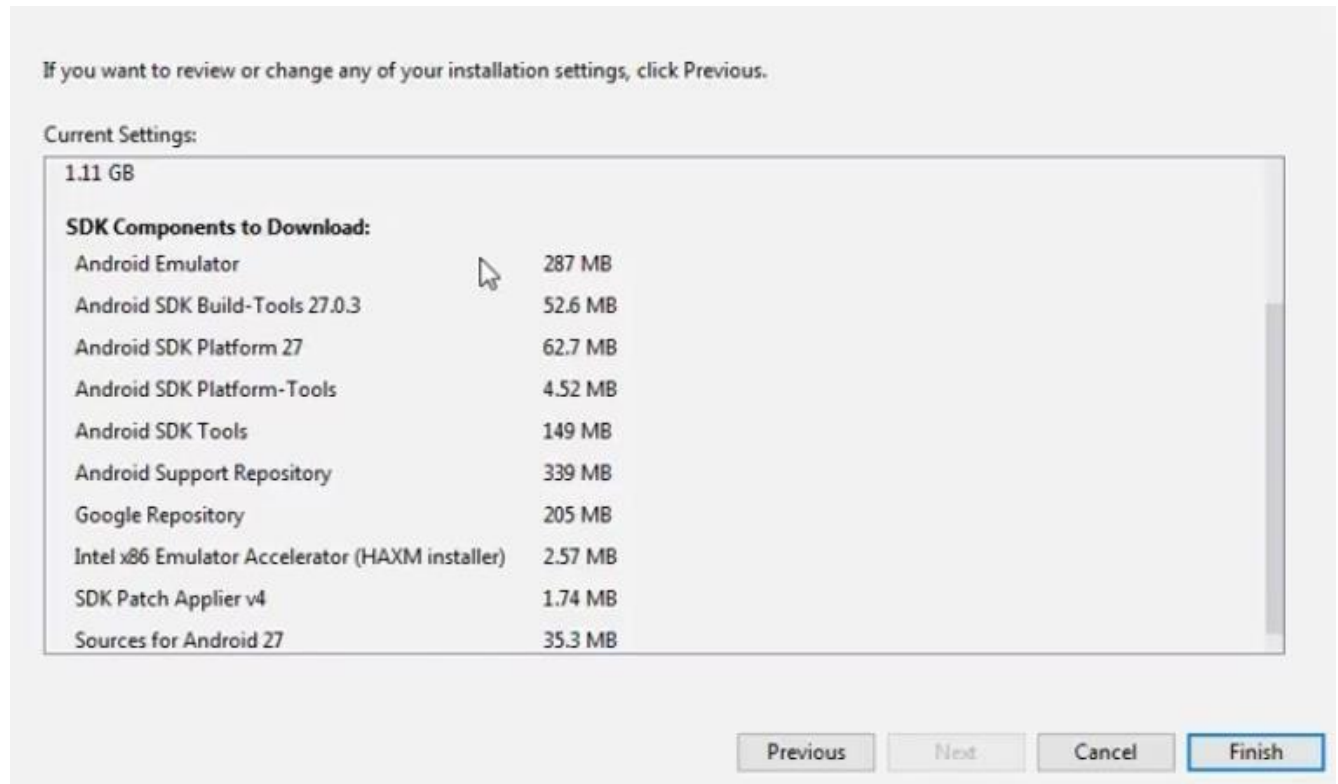
Now choose the theme, whether Light theme or the Dark one .

The light one is called the IntelliJ theme whereas the dark theme is called Darcula .

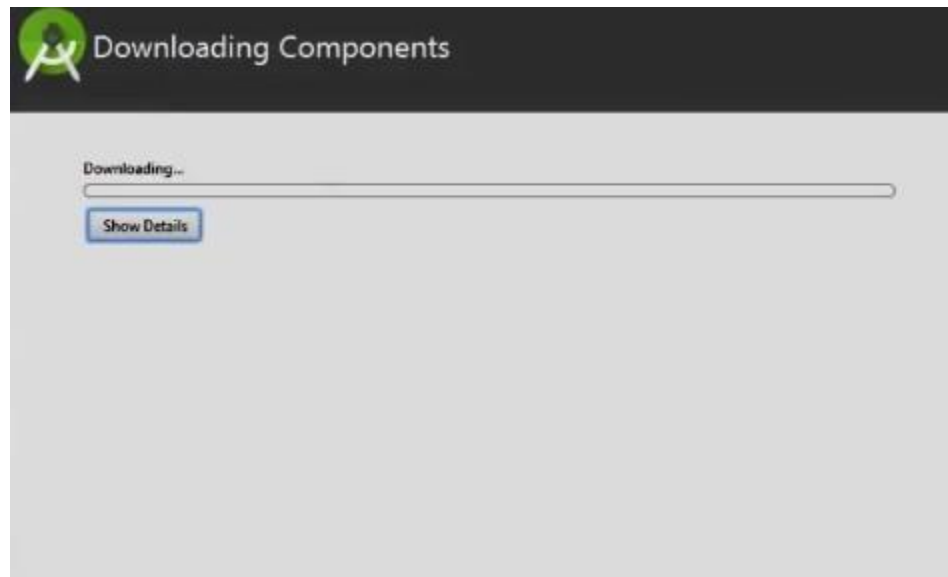
Choose as required.



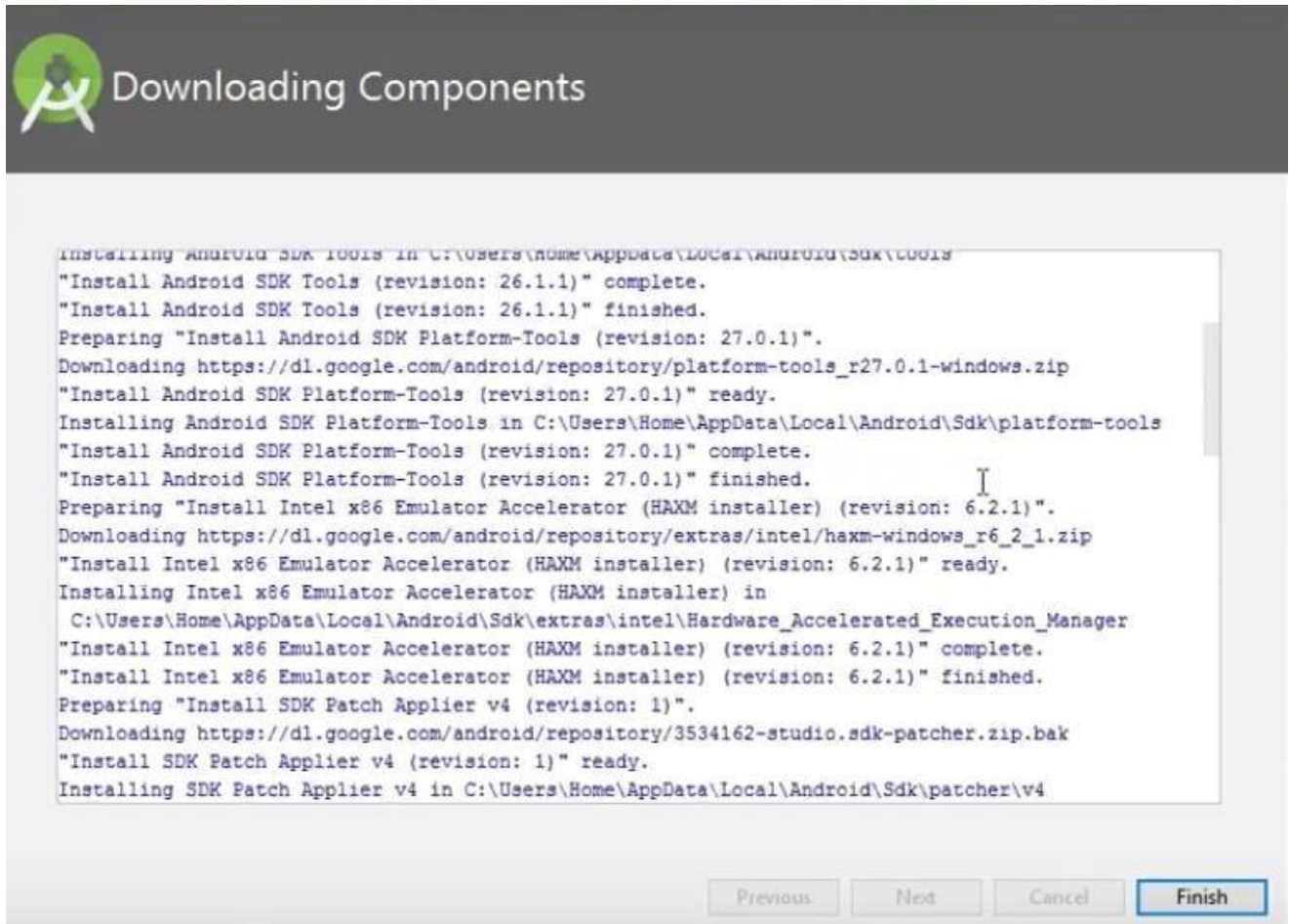
- Click on the Next button
- Step – 8 :
Now it is time to download the SDK components .



Click on Finish .



It has started downloading the components

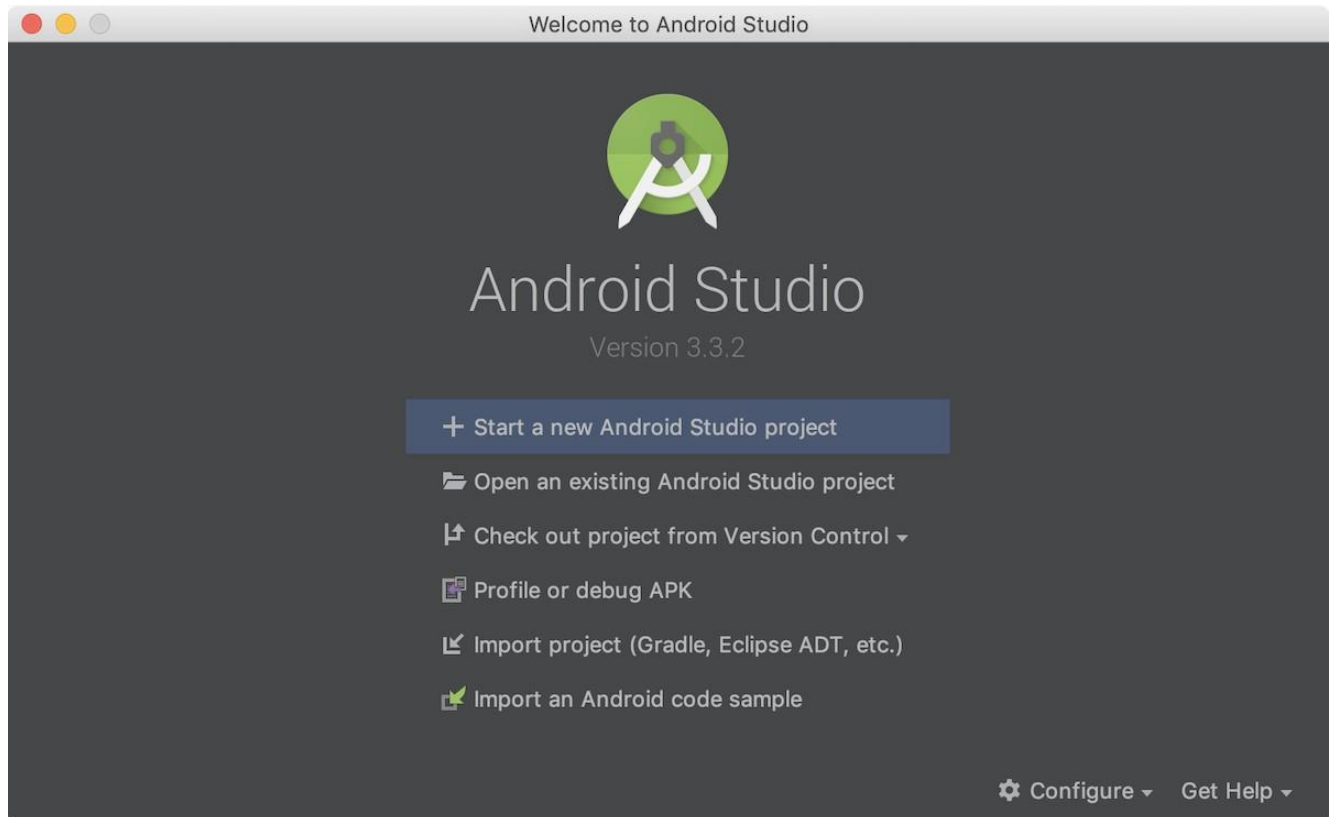


The Android Studio has been successfully configured.
Now it's time to launch and build apps.

Steps to create a project in android

To create your new Android project, follow these steps:

- Install the latest version of Android Studio.
- In the Welcome to Android Studio window, click Start a new Android Studio project.

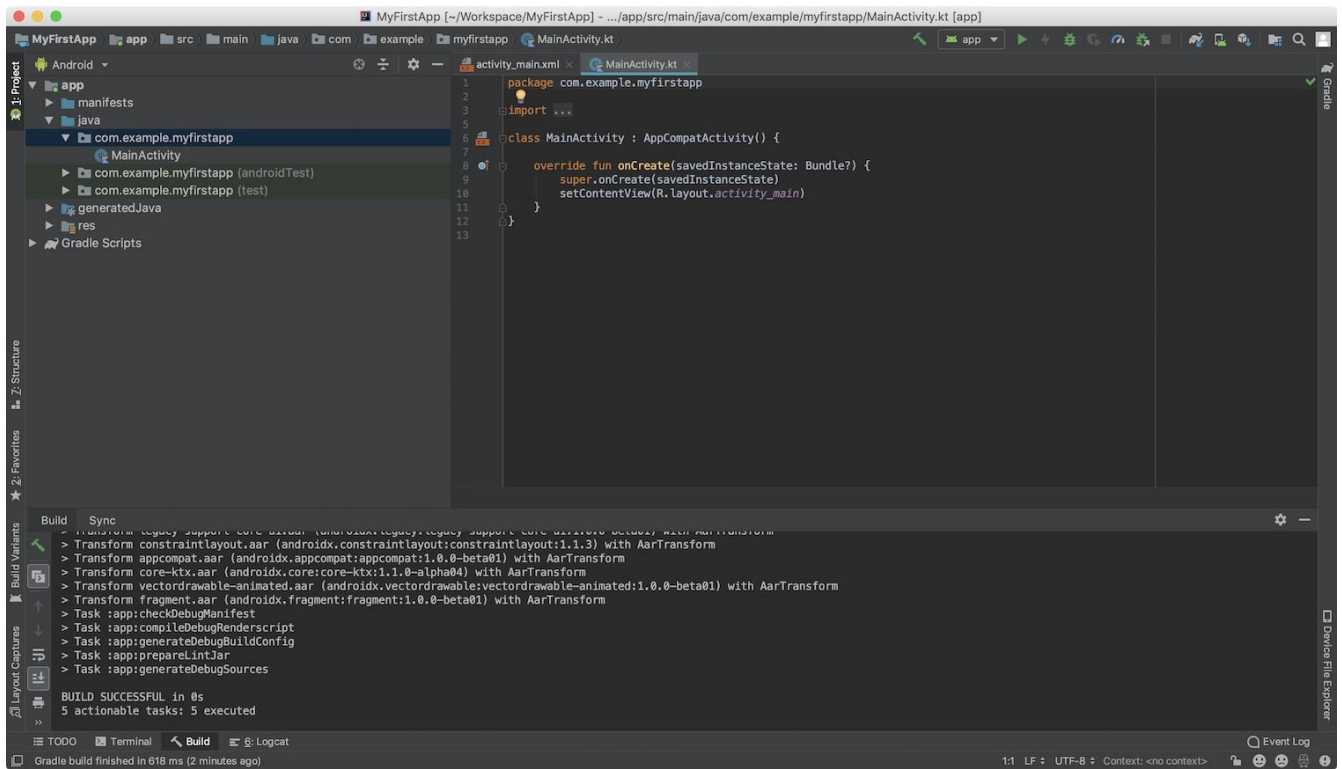


- If you have a project already opened, select File > New > New Project.
- In the Choose your project window, select Empty Activity and click Next.
- In the Configure your project window, complete the following:
 1. Enter "My First App" in the Name field.
 2. Enter "com.example.myfirstapp" in the Package name field.
 3. If you'd like to place the project in a different folder, change its Save location.
 4. Select either Java or Kotlin from the Language drop-down menu.
- Select the checkbox next to Use androidx.* artifacts.
- Leave the other options as they are.

- Click Finish.

The screenshot shows the 'Configure your project' dialog in Android Studio. The dialog has a title bar with buttons: Unmute, Start Video, Security, Participants, New Share, Pause Share, Annotate, Remote Control, and More. Below the title bar is a green bar with 'Remaining Meeting Time: 02:15' and a red 'Stop Share' button. The main content area is titled 'Configure your project'. On the left, there is a preview of an 'Empty Activity' with a back arrow. Below the preview, it says 'Empty Activity' and 'Creates a new empty activity'. On the right, there are several fields: 'Name' (Practical No.1_App), 'Package name' (com.example.practicalno1_app), 'Save location' (C:\Users\Admin\AndroidStudioProjects\PracticalNo1_App), 'Language' (Java), and 'Minimum API level' (API 15: Android 4.0.3 (IceCreamSandwich)). Below these fields, there is an information icon and text: 'Your app will run on approximately 100% of devices.' with a link 'Help me choose'. There are two checkboxes: 'This project will support instant apps' (unchecked) and 'Use androidx.* artifacts' (checked). At the bottom right, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Finish' (highlighted in blue).

- After some processing time, the Android Studio main window appears.



Note

To Open Project Window

select View > Tool Windows > Project

To Open MainActivity.java file

app > java > PackageName > MainActivity.java

To Open Layout activity_main.xml file

app > res > layout > activity_main.xml


1. After the project is created, there are 2 files, **MainActivity.java** and **activity_main.xml**
2. Go to activity_main.xml and select **Design View**
3. In Design View, change the layout to **LinearLayout(Vertical)** select **Add TextView**, and change the text to “Hello World!”
4. Click on **Run** and select the AVD already created(if not created, first create the AVD)
5. Output screen should show “Hello World”

To create a new AVD:

1. Open the **AVD Manager** by clicking Tools > **AVD Manager**.
2. Click **Create Virtual Device**, at the bottom of the **AVD Manager** dialog. ...
3. Select a hardware profile, and then click Next.
4. Select the system image for a particular API level, and then click Next.
5. Change **AVD** properties as needed, and then click Finish.



Virtual Device Configuration



Select Hardware

Android Studio

Choose a device definition

Category	Name	Play Store	Size	Resolution	Density
TV	Pixel XL		5.5"	1440x2...	560dpi
Phone	Pixel 3 XL		6.3"	1440x2...	560dpi
Wear OS	Pixel 3	▶	5.46"	1080x2...	440dpi
Tablet	Pixel 2 XL		5.99"	1440x2...	560dpi
Automotive	Pixel 2	▶	5.0"	1080x1...	420dpi
	Pixel	▶	5.0"	1080x1...	420dpi
	Nexus S		4.0"	480x800	hdpi
	Nexus One		3.7"	480x800	hdpi
	Nexus 6P		5.7"	1440x2...	560dpi

New Hardware Profile
Import Hardware Profiles
Clone Device...

Pixel 3



Size: large
Ratio: long
Density: 440dpi

?
Cancel
Previous
Next
Finish

Virtual Device Configuration



System Image

Android Studio


Select a system image

Recommended
x86 Images
Other Images

Release Name	API Level	ABI	Target
Q Download	Q	x86	Android 9. + (Google Play)
Pie	28	x86	Android 9.0 (Google Play)
Oreo Download	27	x86	Android 8.1 (Google Play)
Oreo Download	26	x86	Android 8.0 (Google Play)
Nougat Download	25	x86	Android 7.1.1 (Google Play)
Nougat Download	24	x86	Android 7.0 (Google Play)

?
Cancel
Previous
Next
Finish

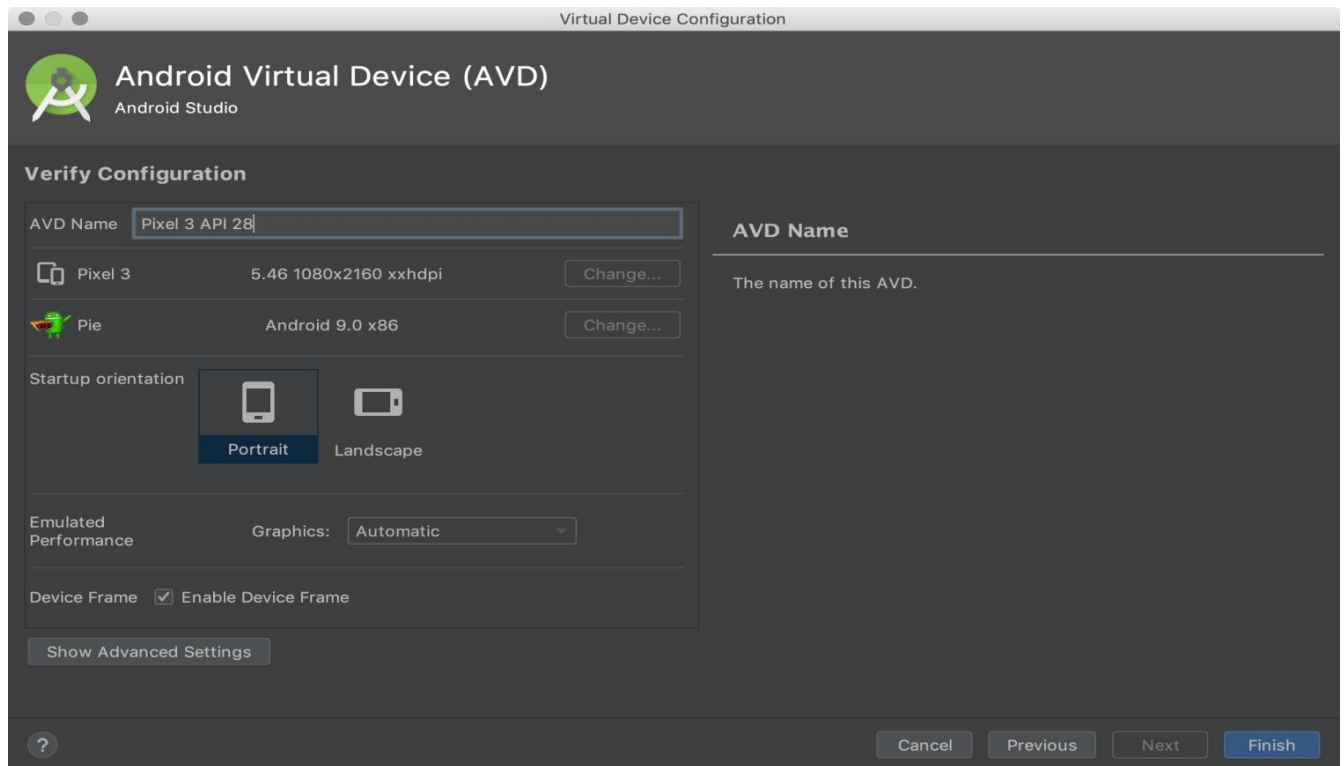
Pie



API Level
28
Android
9.0
Google Inc.
System Image
x86

We recommend these Google Play images because this device is compatible with Google Play.

Questions on API level?
See the [API level distribution chart](#)



Output

