

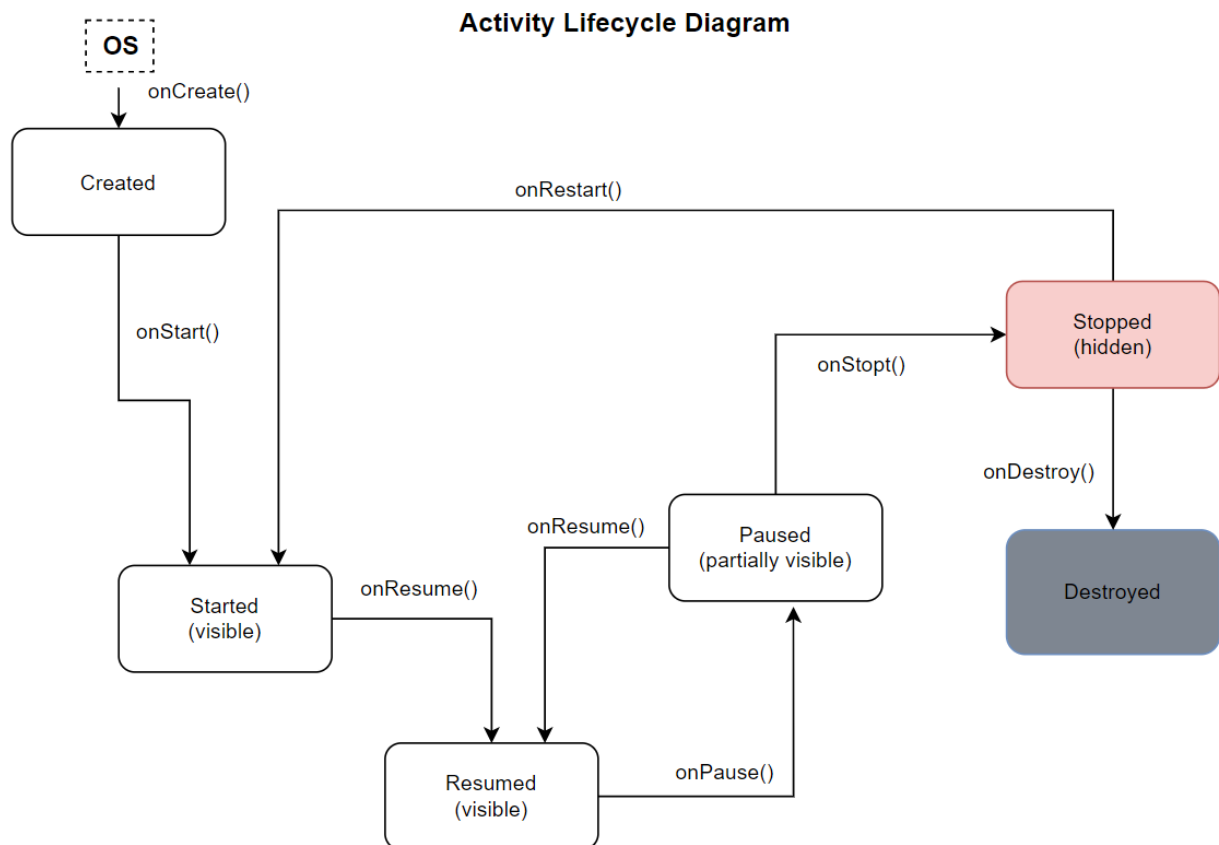


## LAB 1: Android Activity Lifecycle

Objective: Introduction to Android Mobile Device Application Development

An **activity** in an Android app is a screen that interacts with the user.

Each activity has a lifecycle, starting from being created, started, resumed, paused, stopped, restarted and destroyed.



### Part 1: Create the First Android App

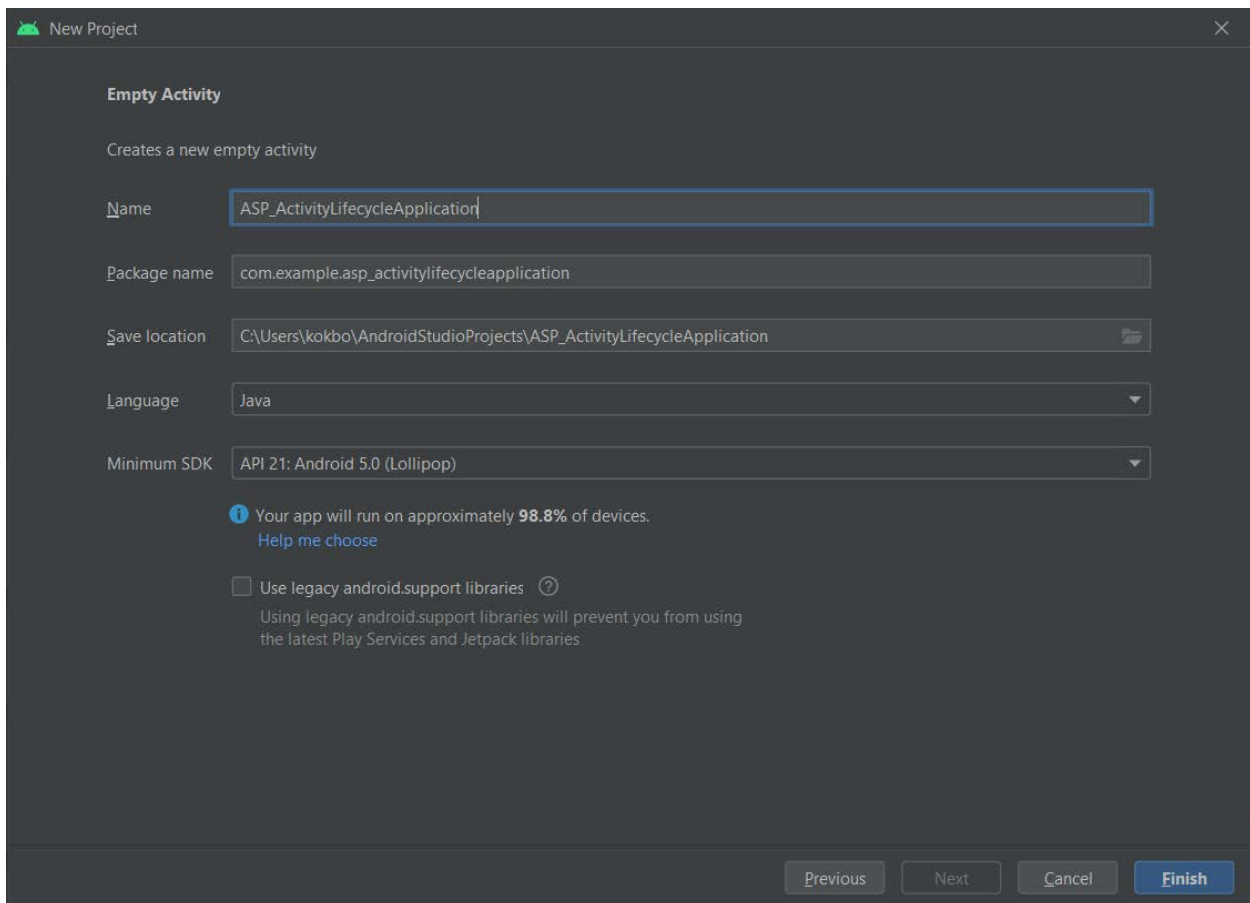
We begin with a simple “Hello World” example

Step 1: Create a new project: Launch Android Studio, click File / New / New Project

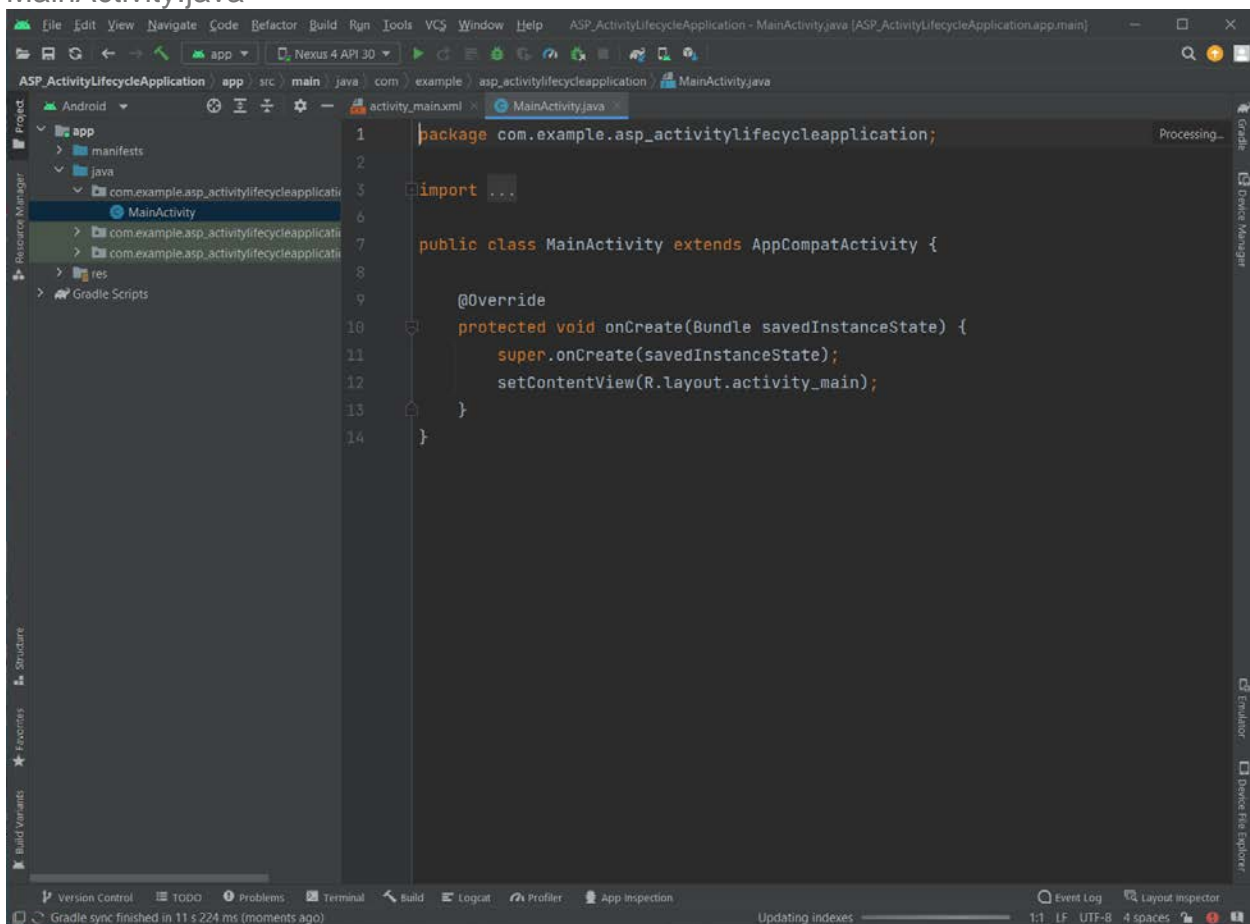
Step 2: Select Phone and Tablet.

Step 3: Choose Empty Activity. Click Next

Step 4: Type “ASP\_ActivityLifecycleApplication” as the Name of the application. Click Finish.



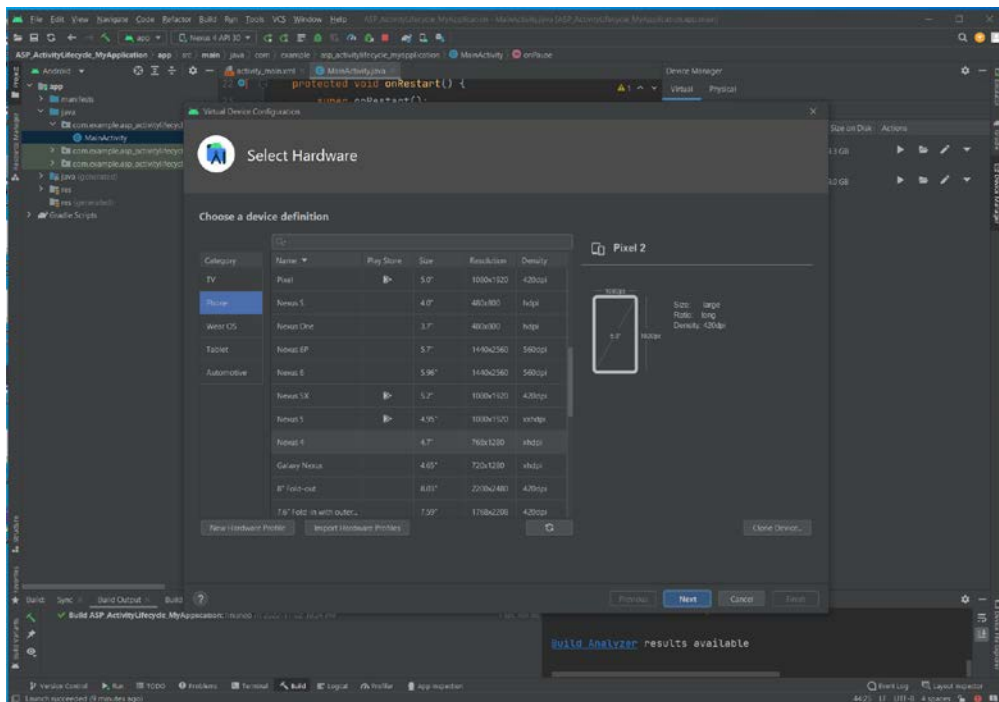
Wait a while for your Android Studio to create your project and show your code, MainActivity.java



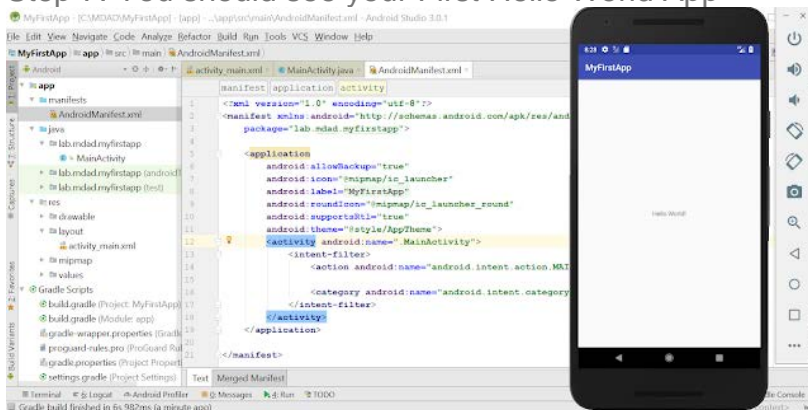
Step 5: Click Build> Rebuild Project.

Step 6: Click on Run>Run App

Step 6B: If you do not have an Android Virtual device (AVD)  
You need to click Tools / Device Manager/ Create device to create a New Virtual Device

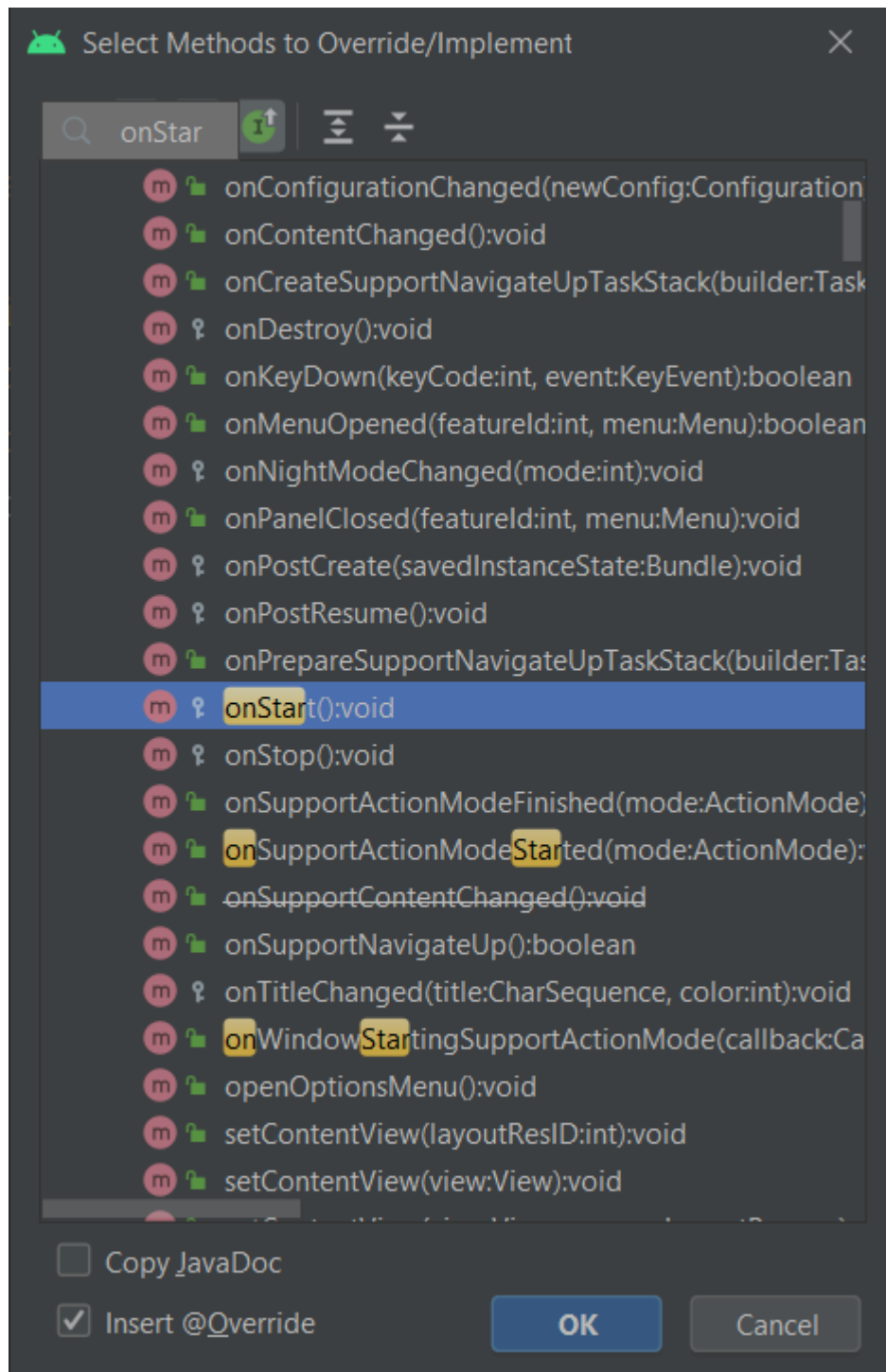


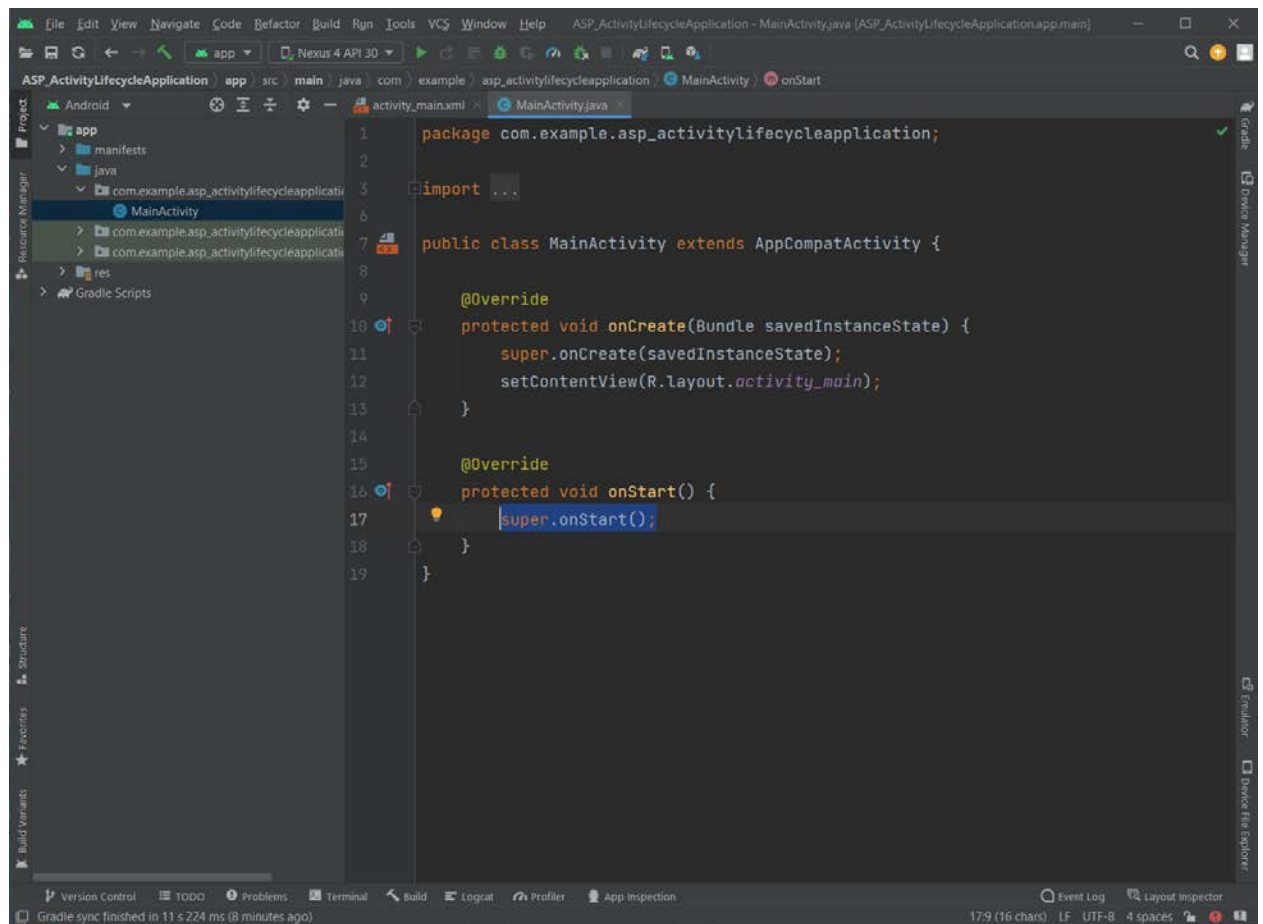
Step 7: You should see your First Hello World App



Step 8:  
Position your cursor after the onCreate() method. Click Code/Override Methods... and type "OnStart" (you don't need to type it fully).

Make sure onStart():void is highlighted and hit <Enter> key or double-click it.





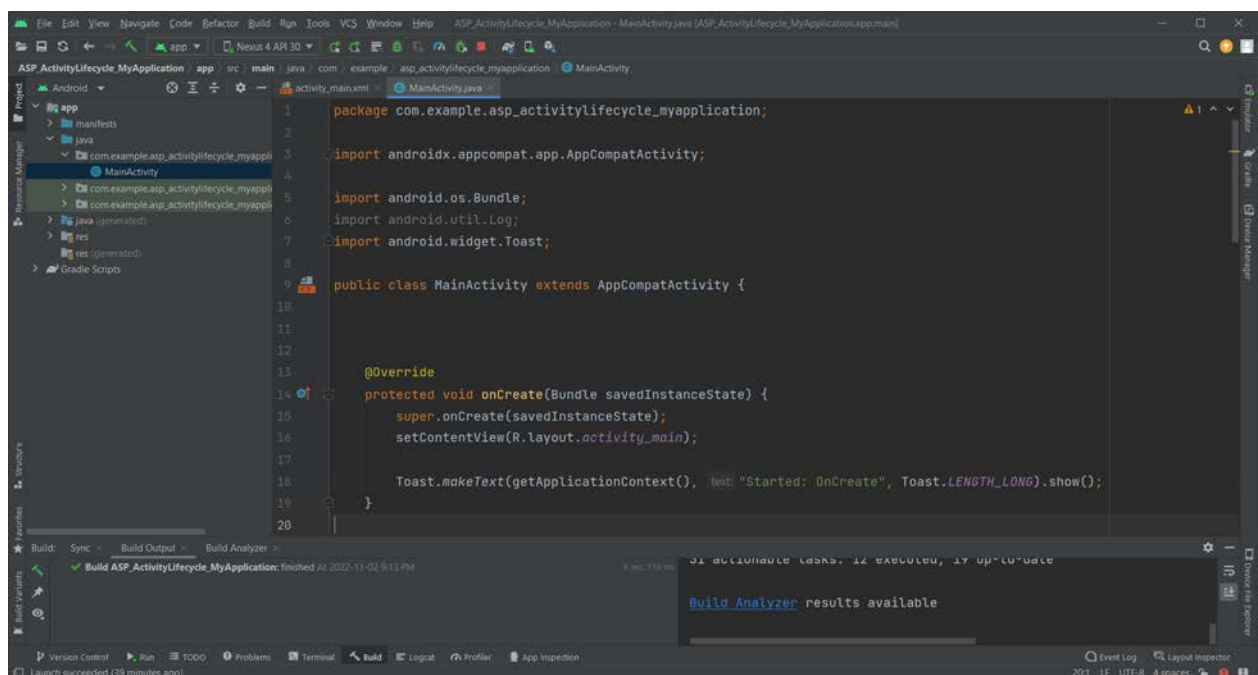
The code for onStart() is now added below your onCreate() method.

Now type in the following line of code into your onStart() method.

```

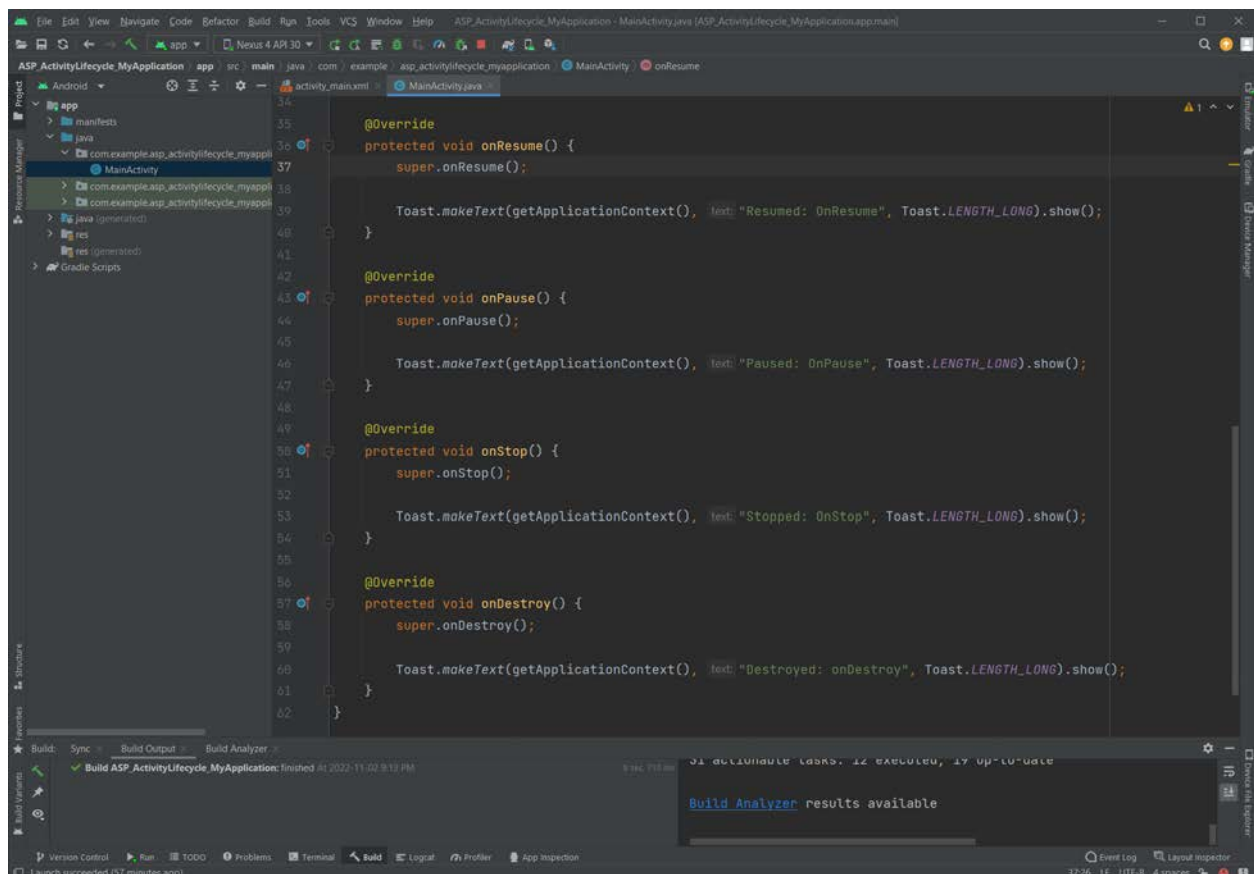
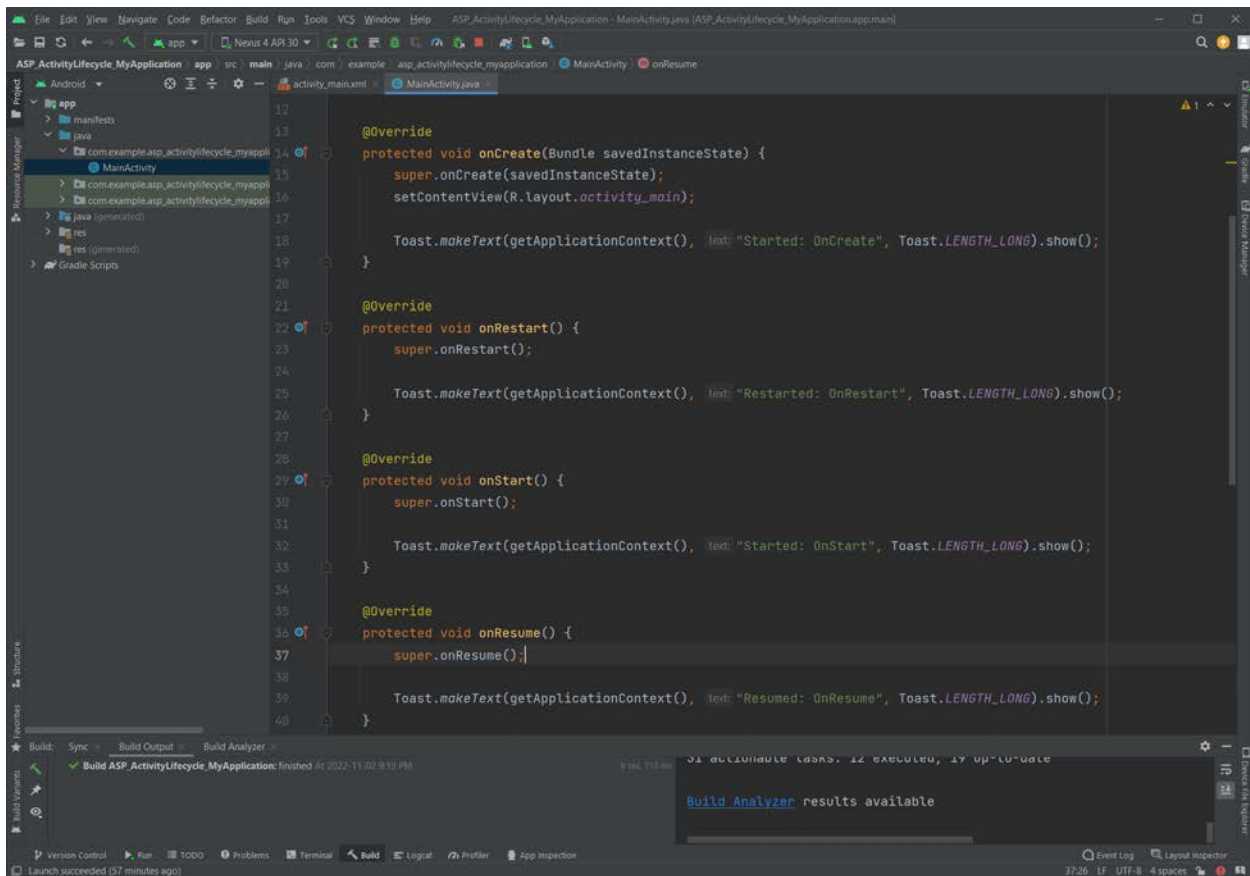
Toast.makeText(getApplicationContext(), "Started: OnCreate",
Toast.LENGTH_LONG).show();

```



## Step 9:

Repeat the above steps to add in onResume(), onRestart(), onPause(), onStop() and onDestroy() method.

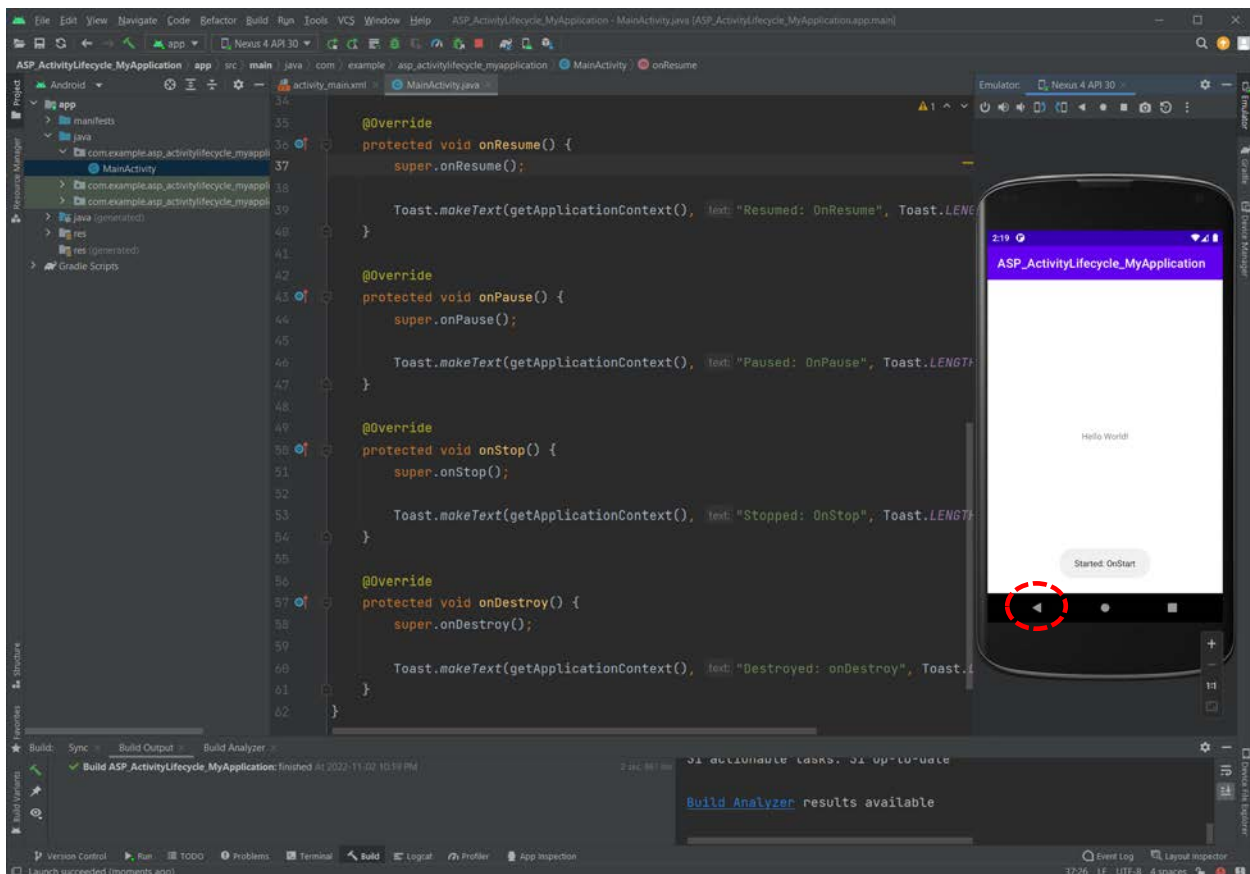




Step 10: Click Build> Rebuild Project.

Step 11: Click on Run>Run App

Step 12: You should see your Hello World App.  
onCreate, onStart, followed by onResume will be shown.



Click the left-pointing triangle at the bottom-left of the AVD screen. onPause, onStop, followed by onDestroy will be shown.