

A)

My target platform is going to be Android.

I will be using MS Windows platform

I prefer to use my personal laptop for my development platform.

The type and version of my Desktop operating system where the development environment will run is:



The development environment version I am using:



B) Below are the steps for

->Running the development environment-Android Studio

->Opening and compiling the provided HelloOpenGL2.0 demo app (for Android).

->Running the app on my own device.

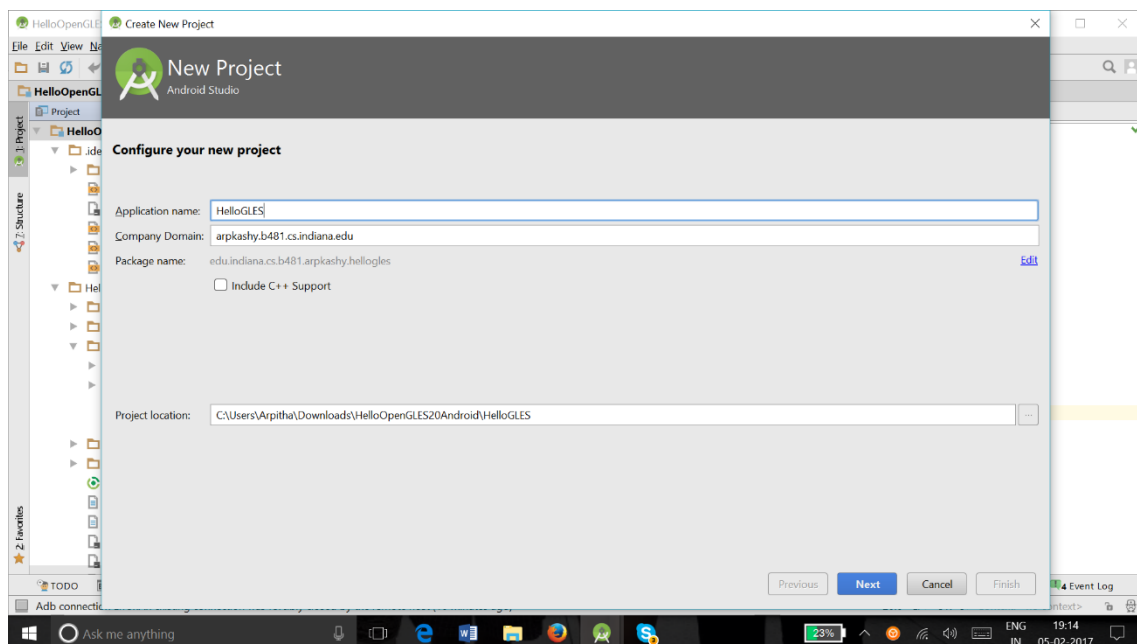
Steps for running the development environment –

Opening the Application

1)

Open Android Studio and click on

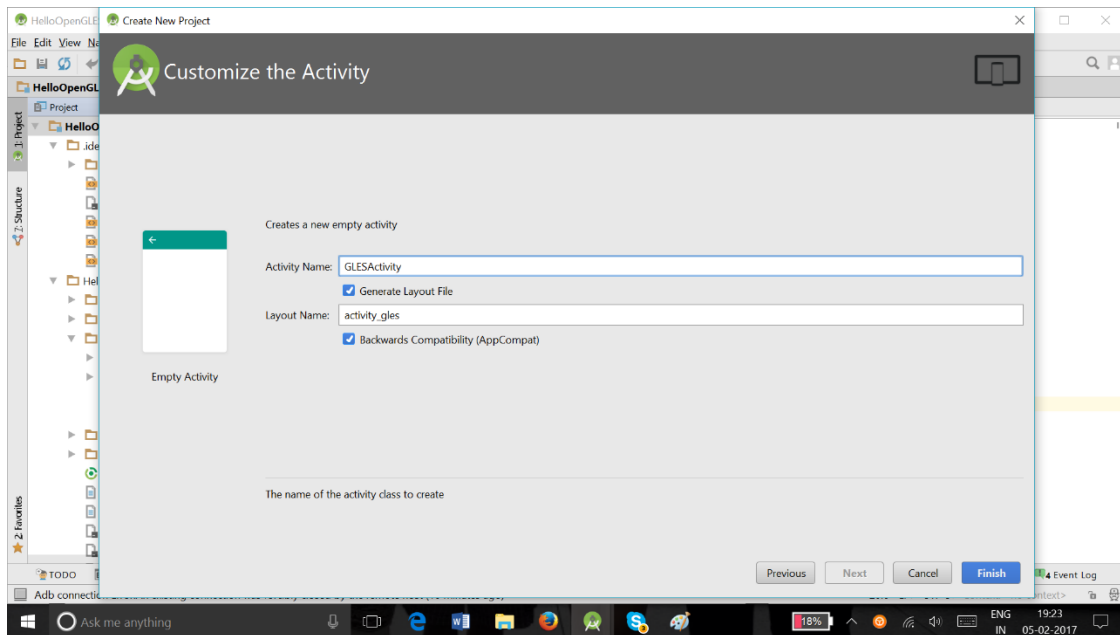
File -> New project



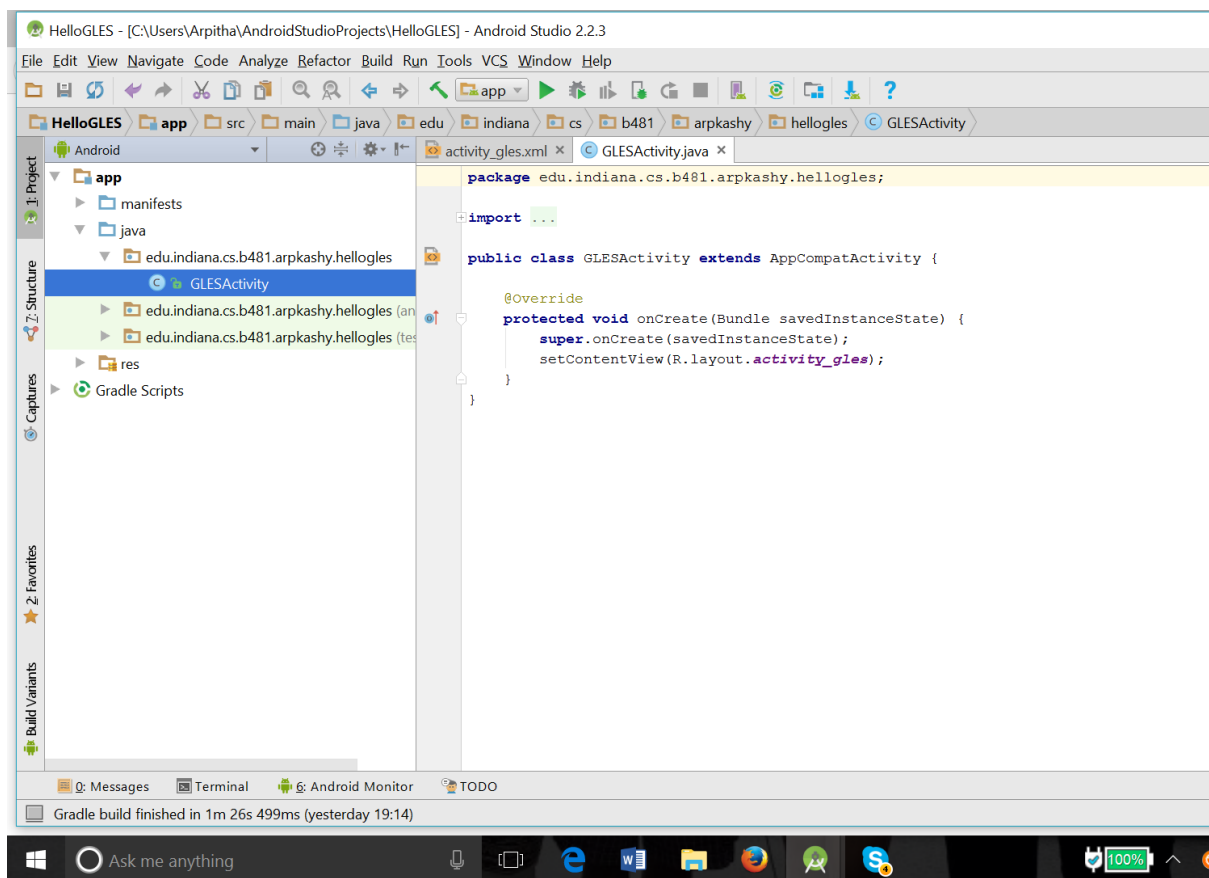
Click on Next

2) Select "Phone and Tablet", a minimum SDK to be required and click on Next.

Select Empty activity and give a name for the activity.

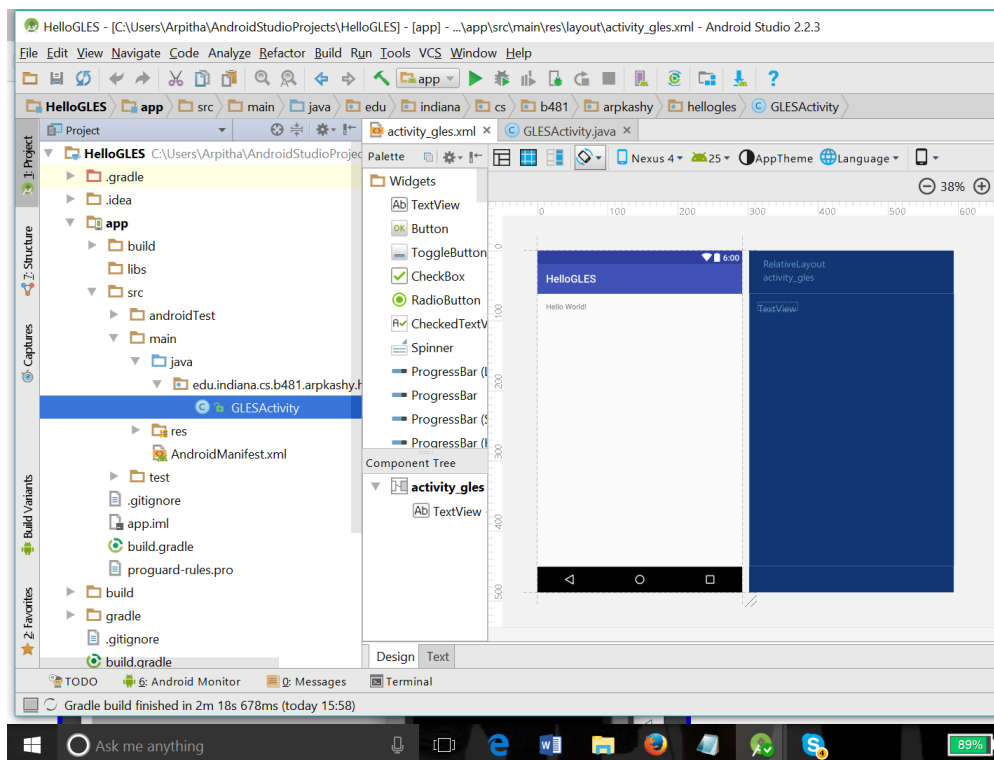


3)



This is the main window of Android studio with the new project.

Click on the Android drop down menu to select project which displays all the files in the project.

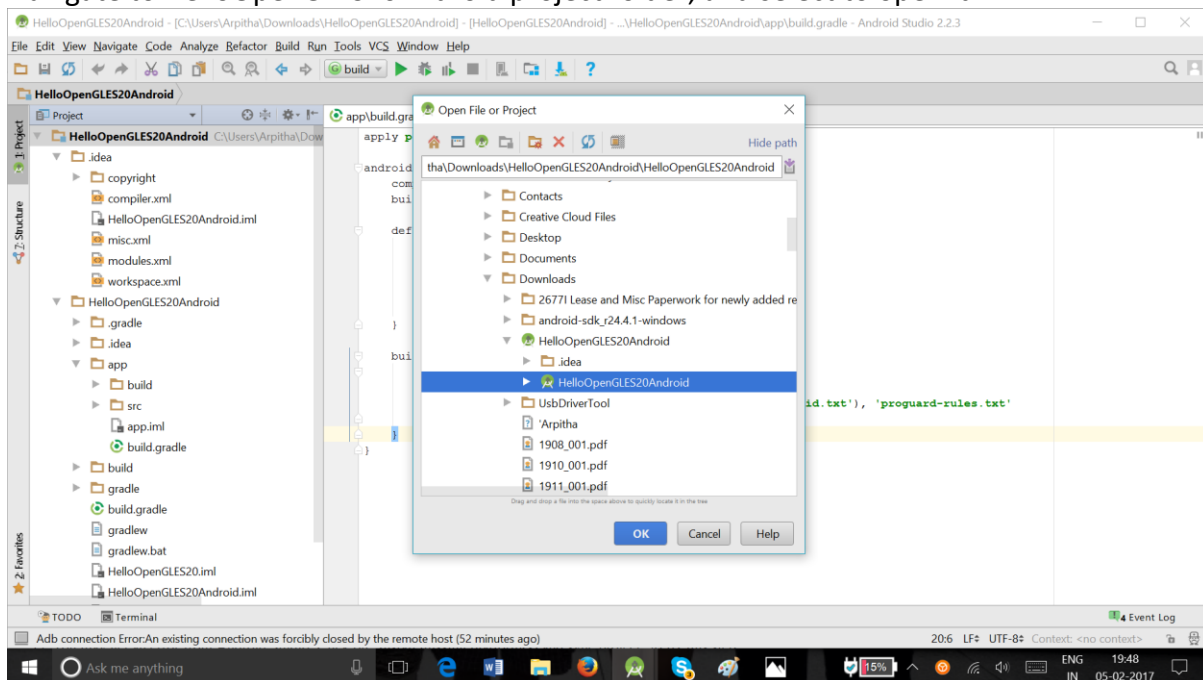


4)

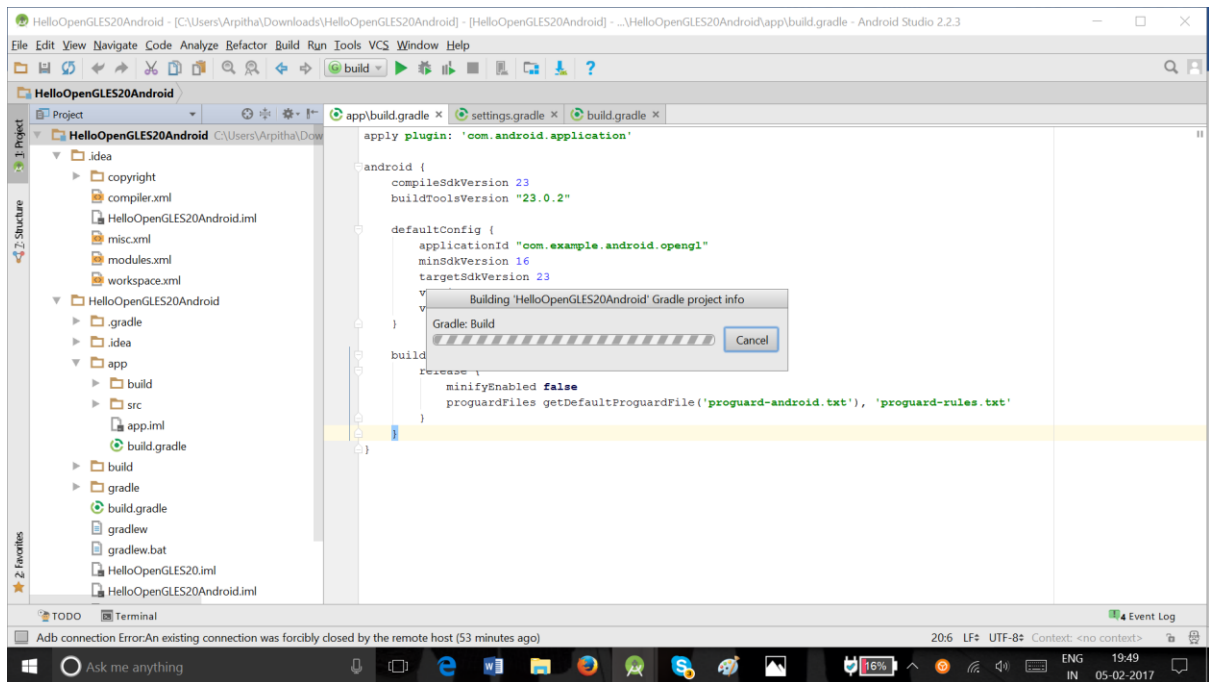
Now I open the HelloOpenGLES20Android

File->Open

Navigate to HelloOpenGLES20Android project folder, and select to open it.



5) The project is being built.



Once its built, it opens an alert dialog that acknowledges Android Studio correcting the location of the Android SDK on my system.

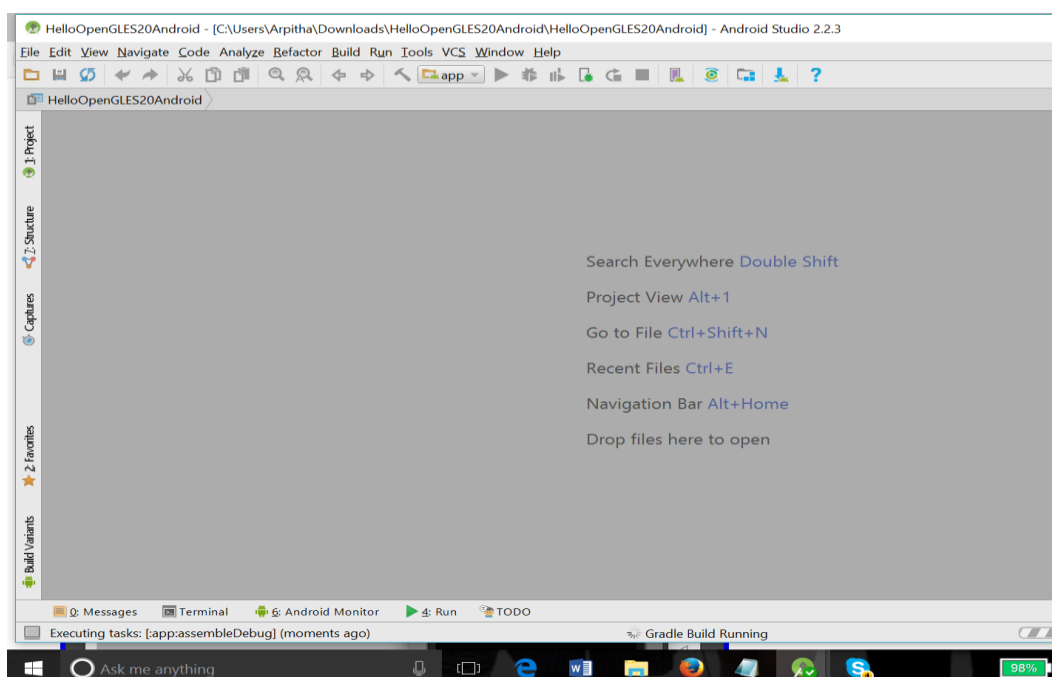
The error "Failed to sync Gradle project 'HelloOpenGLES20'"

Click on 'Install missing platforms and sync project'.

6)

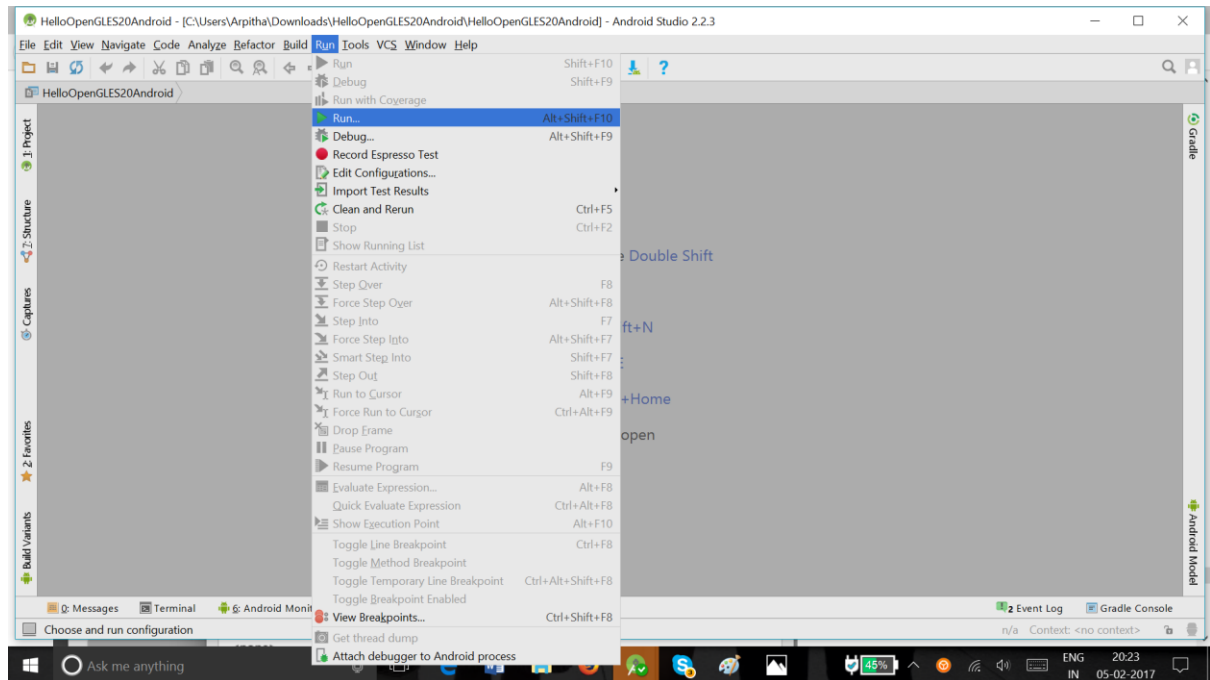
A dialogue box appears asking for Update an older version of the "Gradle" system that is part of Android Studio. Click on update.

Once update successfully, the following screen occurs:



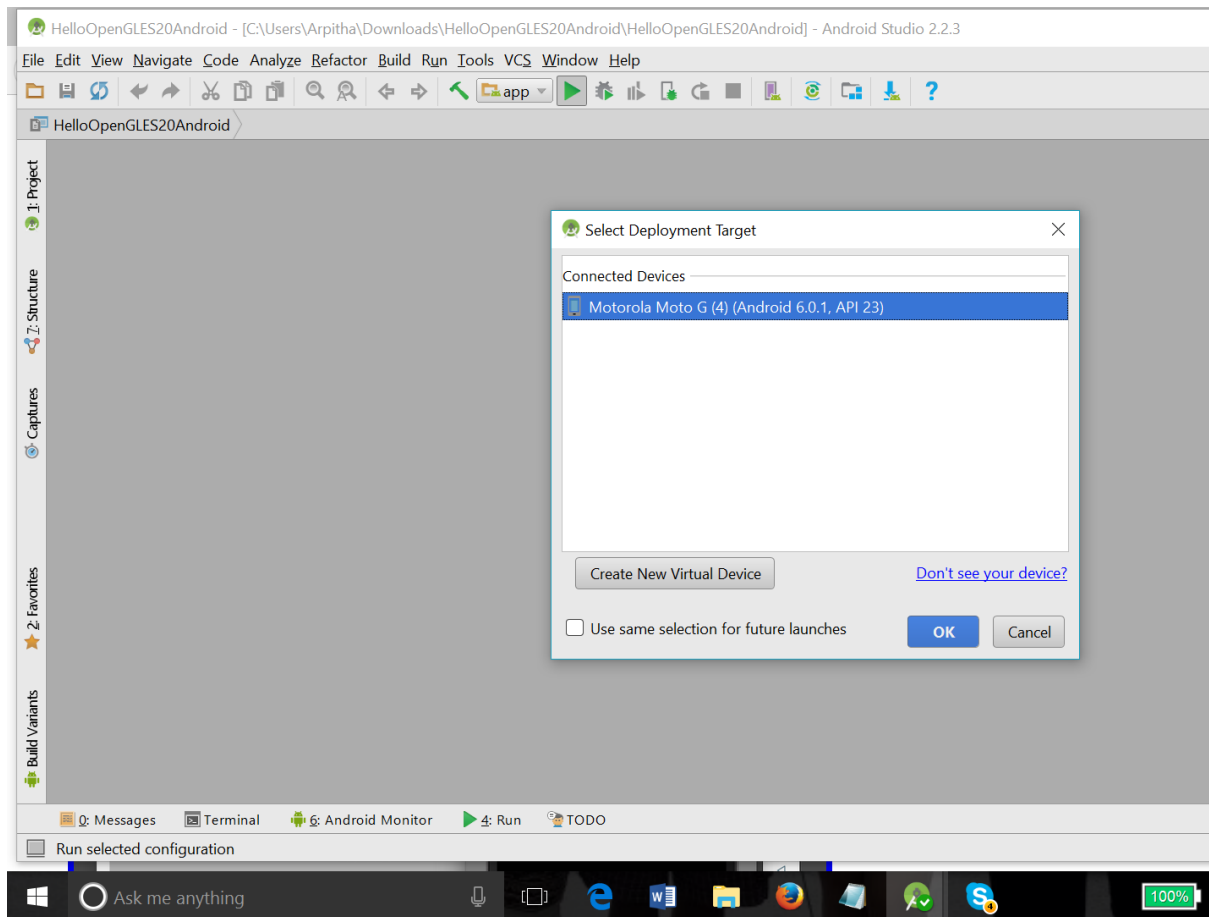
7)

Click on Run to run the program:



You will need to select the device on which you want to run the application.

In this case, it's a Moto G4 Plus



8) My newly compiled OpenGL ES app will show up running on the phone.

Before I did this, I switched to debugging mode on my phone.

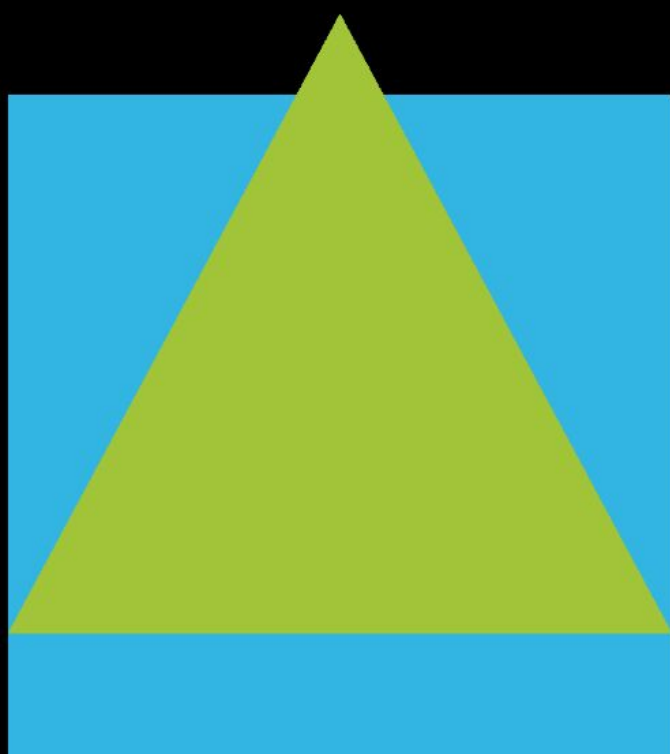
After a few mins, the output appears on the screen as follows:



5:23



HelloOpenGLS20





C) To display just one object as output:

This is displayed on my phone screen after commenting on the line

```
GL ES20.glDrawArrays (GL ES20.GL_TRIANGLES, 0, vertexCount); (In Triangle.java)
```



By commenting this line, the object is not drawn on the screen.

The colour of the square changes to teal.

