

Experiment 1.2

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Aim/Overview of the practical: To design an android application to display Hello World.

Objective:

Android Studio is the official IDE (Integrated Development Environment) for Android app development and it is based on JetBrains' IntelliJ IDEA software.

System Requirements:

- Microsoft Windows 7/8/10 (32-bit or 64-bit)
- 4 GB RAM minimum, 8 GB RAM recommended (plus 1 GB for the Android Emulator)
- 2 GB of available disk space minimum, 4 GB recommended (500 MB for IDE plus 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution

Steps:

- i. First step is to create a simple Android Application using Android studio.
- ii. You can start your application development by calling start a new android studio project. in a new installation frame should ask Application name, package information and location of the project.

- iii. Configure the Hello World Project Details We'll finish creating the project by Configuring some details about its name, location, and the API version it

Code:

Main activity.java

- The main activity code is a Java file MainActivity.java. This is the actual application file which ultimately gets converted to a Dalvik executable and runs your application

```
package com.example.helloworldapplication;  
import androidx.appcompat.app.AppCompatActivity; import  
android.os.Bundle;public class MainActivity extends  
AppCompatActivity {  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main); }  
}
```

The Layout File

- The activity_main.xml is a layout file available in res/layout directory, that is referenced by your application when building its interface. You will modify this file very frequently to change the layout of your application. For your "Hello World!" application, this file will have following content related to default layout.

```
<RelativeLayout  
xmlns:android=http://schemas.android.com/apk/res/android  
xmlns:tools=http://schemas.android.com/tools  
android:layout_width="match_parent"  
android:layout_height="match_parent" >
```

```
<TextView android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_centerHorizontal="true"  
android:layout_centerVertical="true"  
android:padding="@dimen/padding_medium"  
android:text="@string/hello_world"  
tools:context=".MainActivity" />
```

Running your App: -

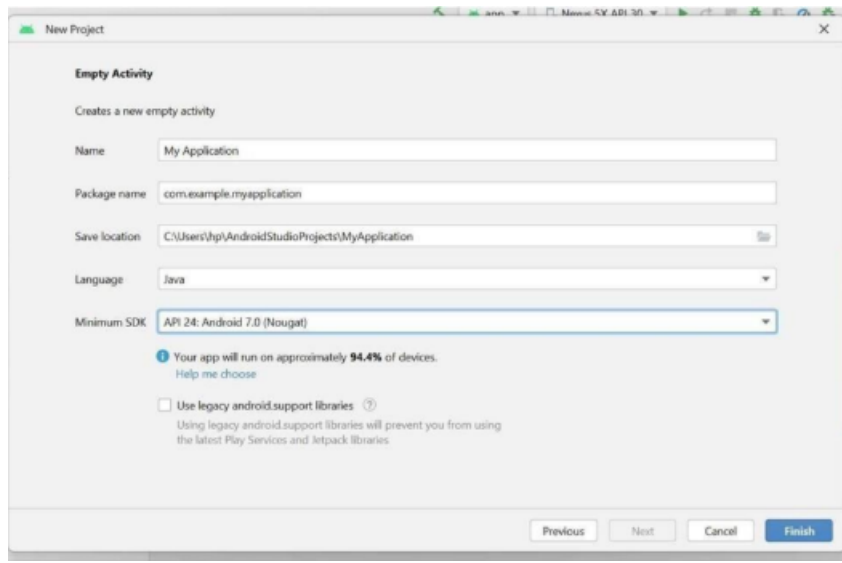
Now, we can launch apps from Android Studio onto our device:

1. Select one of your projects and click "Run" from the toolbar.
2. In the "Choose Device" window that appears, select the "Choose a running device" radio button, select the device, and click OK.

II) Running app on Emulator (AVD)

To run the app from Android studio, open one of your project's activity files and click Run icon from the tool bar. Android studio installs the app on your AVD and starts it and if everything is fine with your set-up and application, it will display following Emulator window –Once Gradle finishes building, Android Studio should install the app on your connected device and start it.

Output:



CREATE NEW PROJECT

