DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

Experiment-1.2

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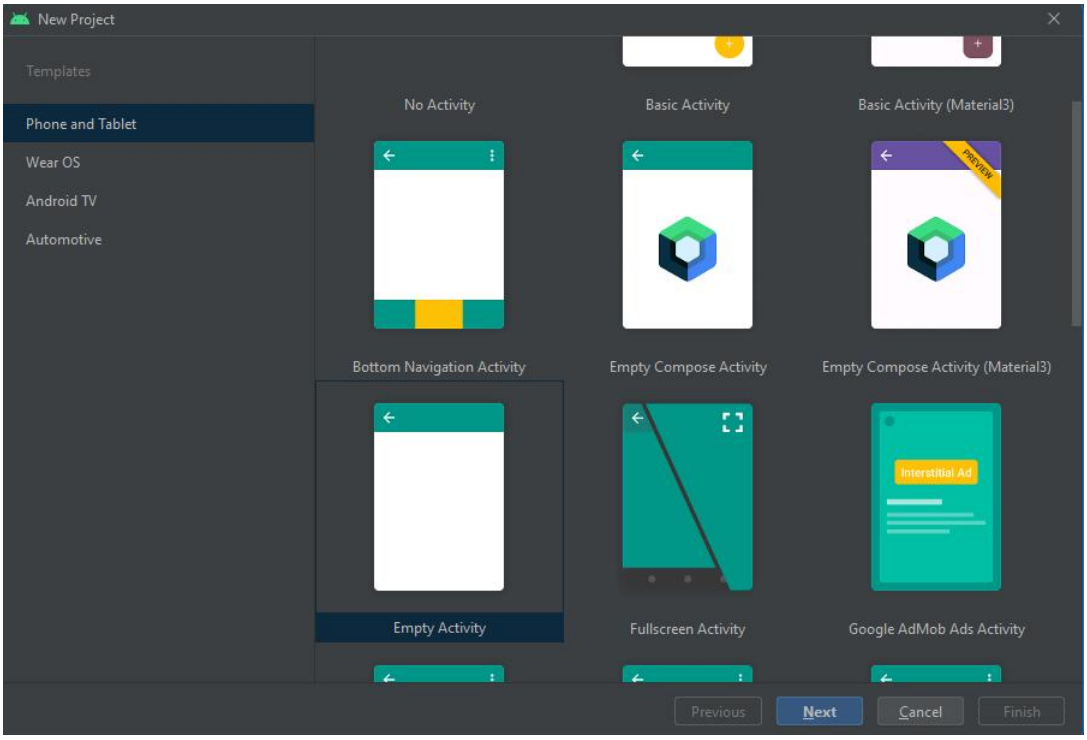
Semester: 6th **Date of Performance: 23-02-2023**
Subject Name: Mobile Application Development Lab
Subject Code: 20CSP-356

AIM: To design an android application to display Hello World

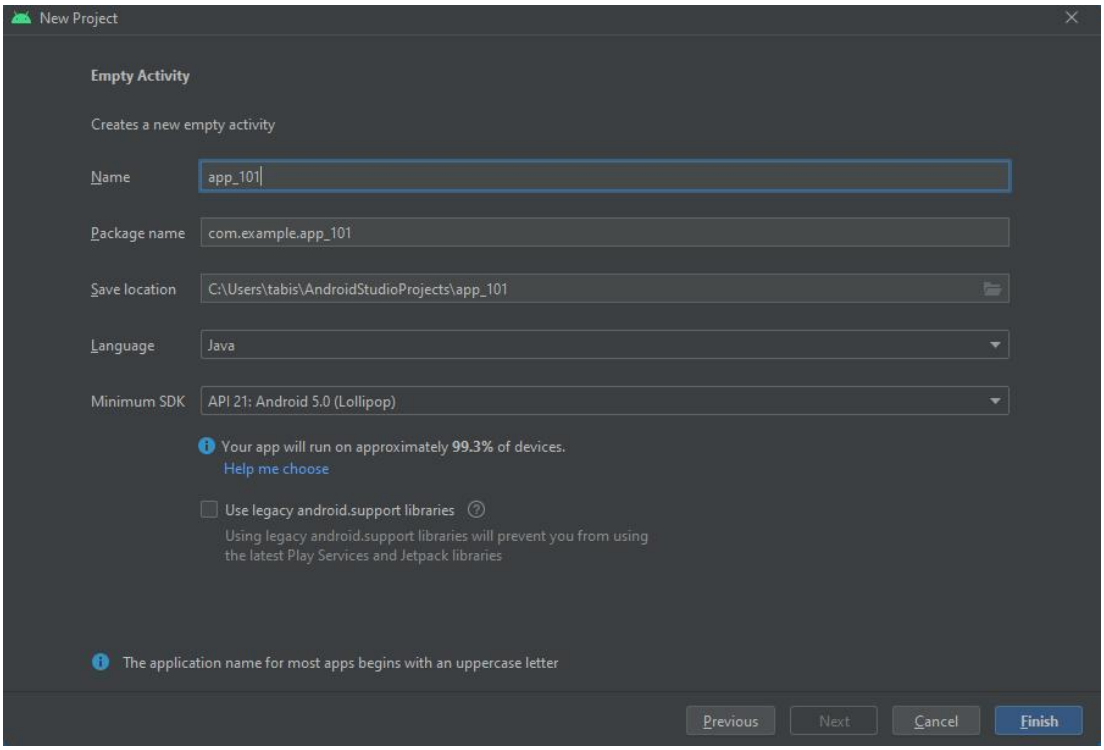
Steps:

Following are the steps to install android studio.

Step 1: Click on New Project and select your required customization with your requirements of your project.



Specify your project name, choose your desired language and SDK and specify its path.



Click on finish and you'll be moved to a new window with your desired program code.

Step 2: 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 yourapplication.

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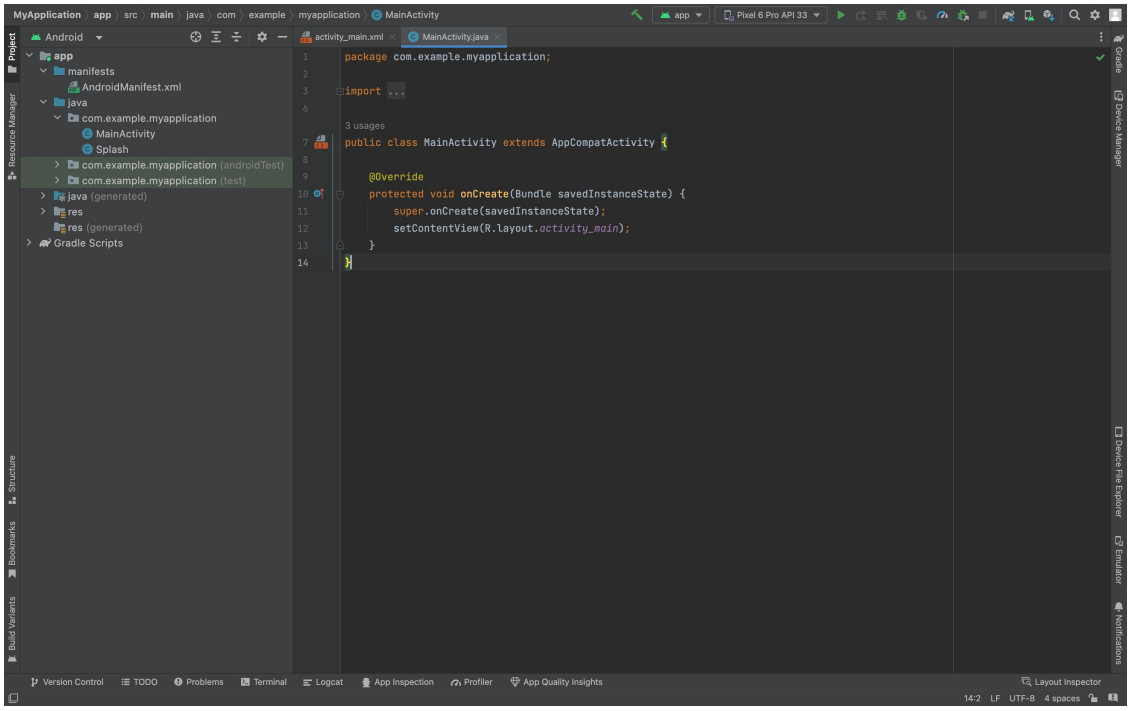

Source code of MainActivity.java:

```
package com.example.myapplication;

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 activity_main.xml is a layout file available in res/layout directory, that is referencedby 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

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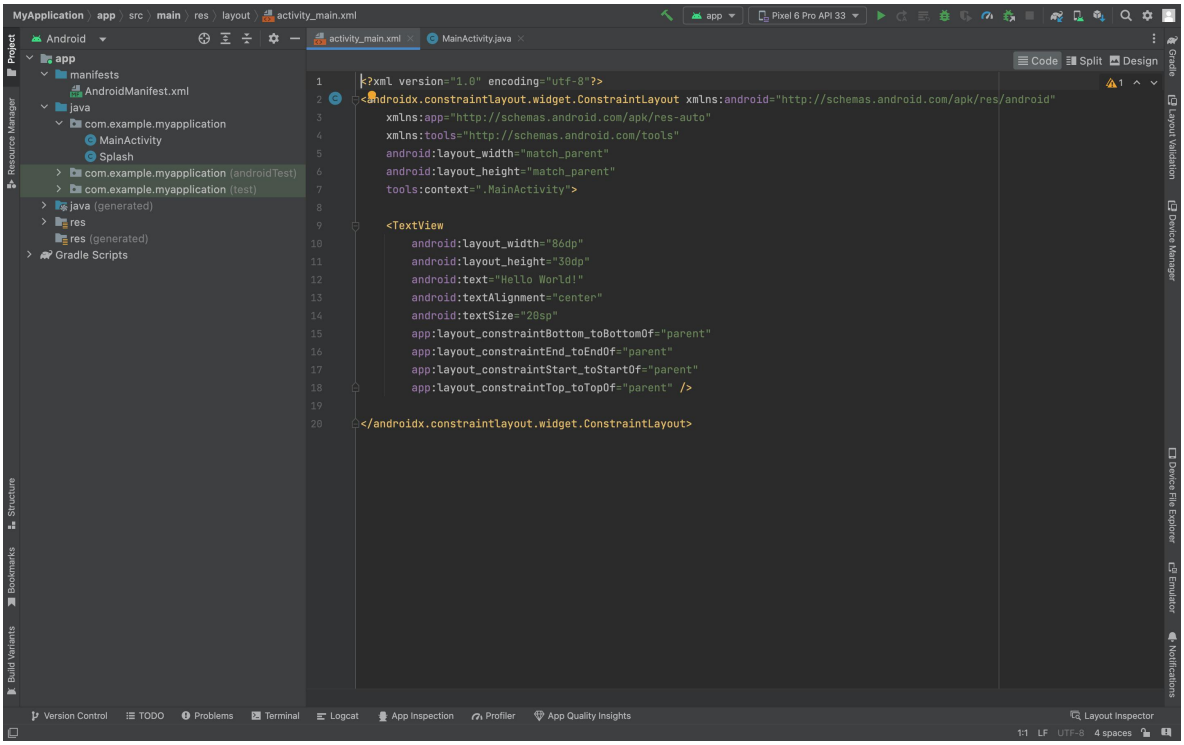

Source code of activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

You can toggle between Code and Design from the top right option. You may also splitscreen according to your use.

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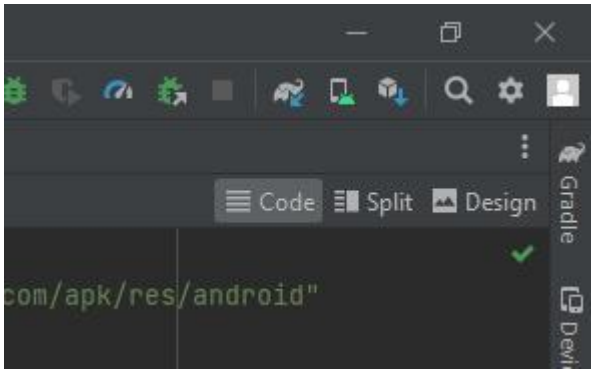
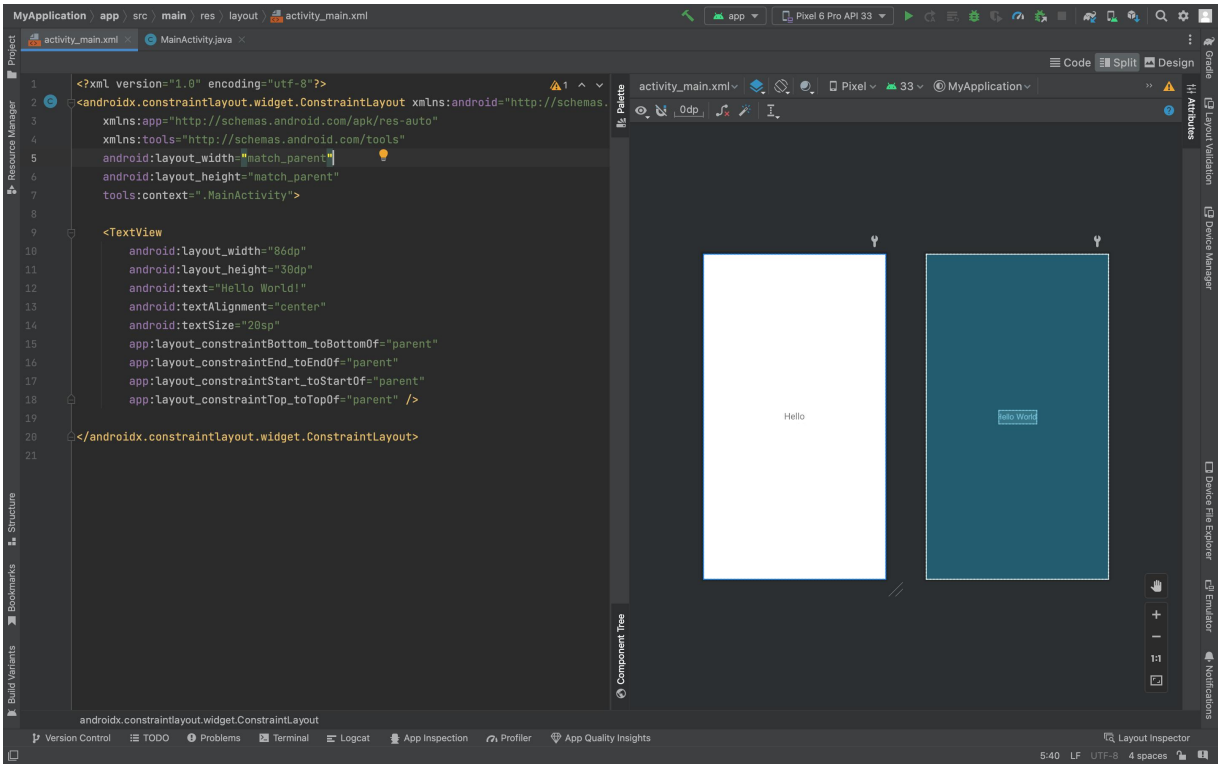


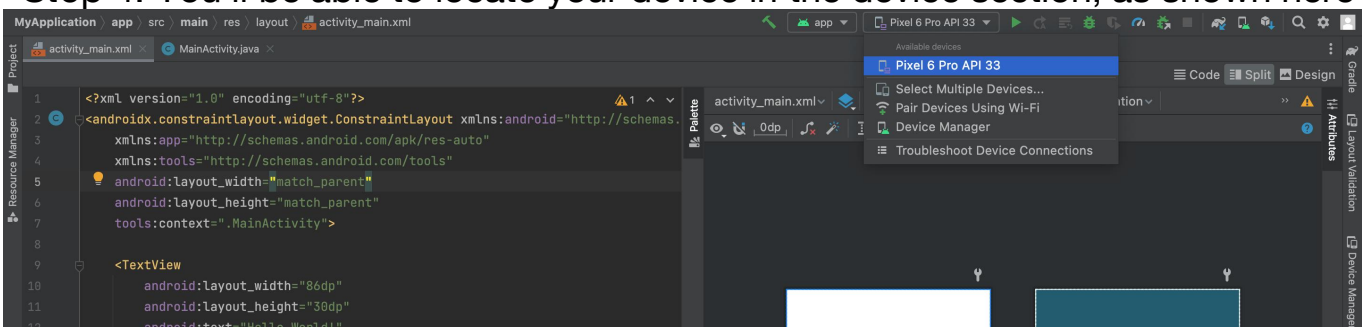


Step 3: Plug in your device to your computer with a USB cable. Enable your USB debugging in your phone, you might need to follow the following steps in case youhaven't enabled your USB debugging in you android device.

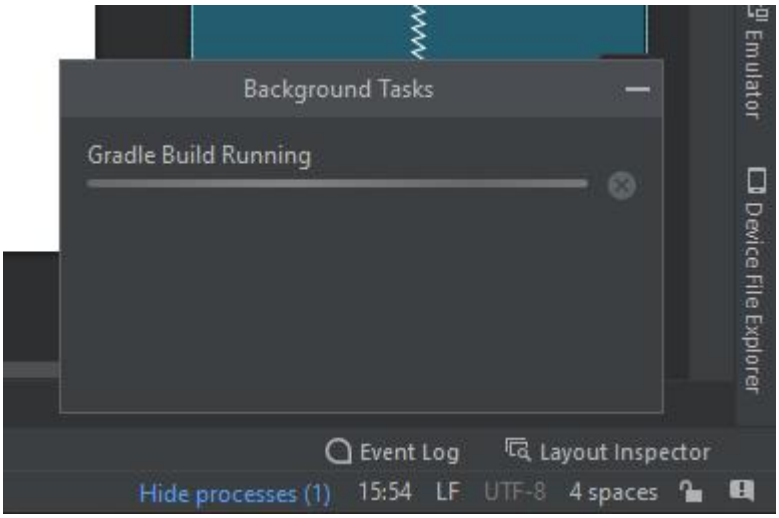
1. Open the "Settings" App on the Device
2. Scroll down to bottom to find "About phone" item
3. Scroll down to bottom to find "Build number" section
4. Tap on "Build Number" 7 times in quick succession
5. You should see the message "You are now a developer!"
6. Go back to main "Settings" page

7. Scroll down bottom to find "Developer options" item
8. Turn on "USB Debugging" switch and hit "OK"
9. Unplug and re-plug the device
10. Dialog appears "Allow USB Debugging?"
11. Check "Always allow from this computer" and then hit "OK"

Step 4: You'll be able to locate your device in the device section, as shown here



Step 5: Click on Run button, on the top right side, beside Choose Device option, or youmay simply press 'Shift + F10'. Android studio installs the app on your device and startsit 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 appon your connected device and start it.



App output: