

Experiment No. - 2

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Branch: BE-CSE(LEET)

Semester: 6th

Subject Name: Mobile Application Development Lab

UID: 21BCS8129

Section/Group: 20BCS-ST-801/B

Date of Performance: 14/02/2023

Subject Code: 20CSP-356

1. Aim/Overview of the practical:

To design an android application to display Hello World.

2. Apparatus / Simulator Used:

1. Linux OS/ Windows 7 or above
2. Android Studio
3. Ram 4 GB and above
4. Java (Including JDK & JRE)

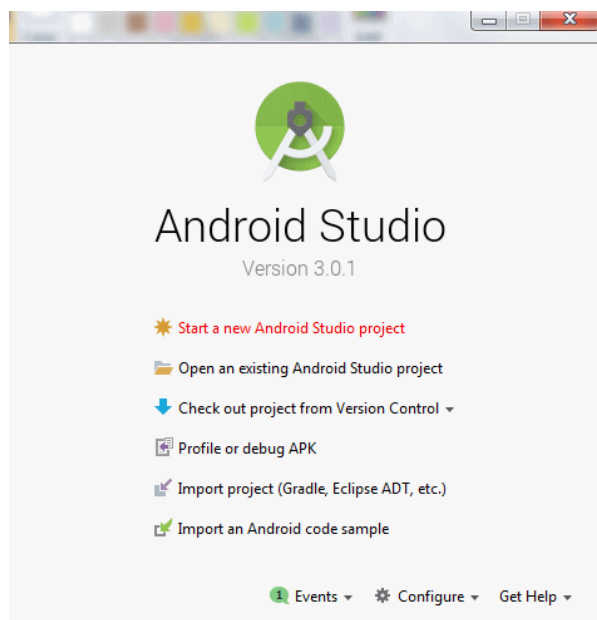
3. Objective:

- a. To understand The Starting Project Creation
- b. To implement the first App in Android Studio with Hello World Message.

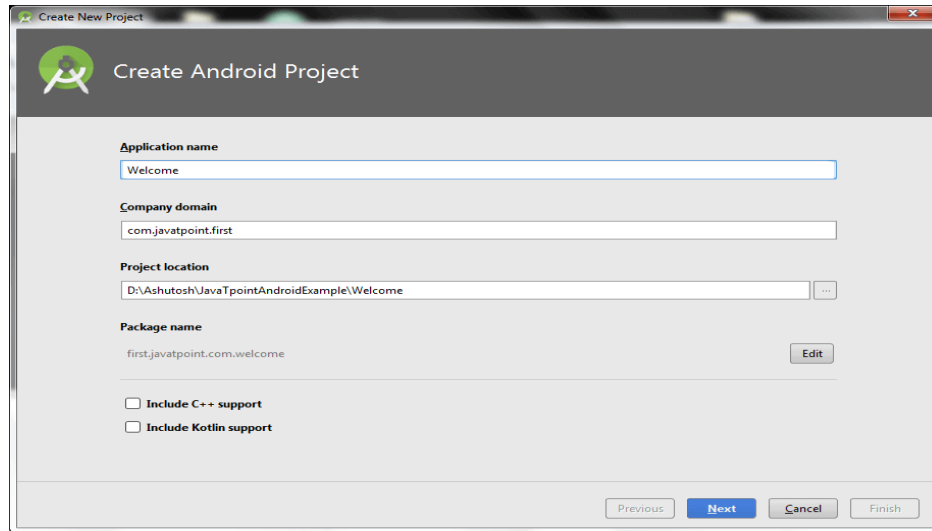
4. Steps:

For creating the new android studio project:

Select *Start a new Android Studio project*



Provide the following information: Application name, Company domain, Project location and Package name of application and click next.



Create New Project

Create Android Project

Application name
Welcome

Company domain
com.javatpoint.first

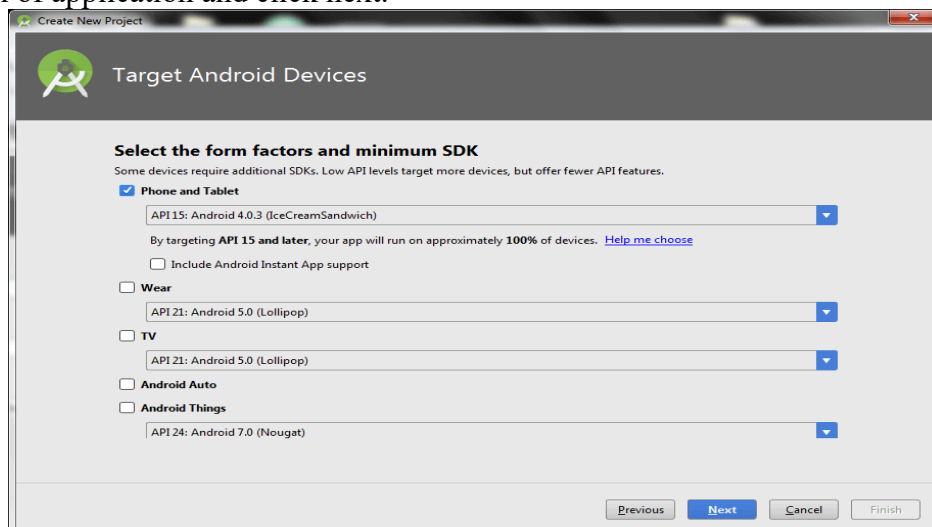
Project location
D:\Ashutosh\JavaTpointAndroidExample\Welcome

Package name
first.javatpoint.com.welcome

☐ Include C++ support
☐ Include Kotlin support

Previous Next Cancel Finish

Select the API level of application and click next.



Create New Project

Target Android Devices

Select the form factors and minimum SDK
Some devices require additional SDKs. Low API levels target more devices, but offer fewer API features.

☒ **Phone and Tablet**
API 15: Android 4.0.3 (IceCreamSandwich)
By targeting **API 15 and later**, your app will run on approximately 100% of devices. [Help me choose](#)
☐ Include Android Instant App support

☐ **Wear**
API 21: Android 5.0 (Lollipop)

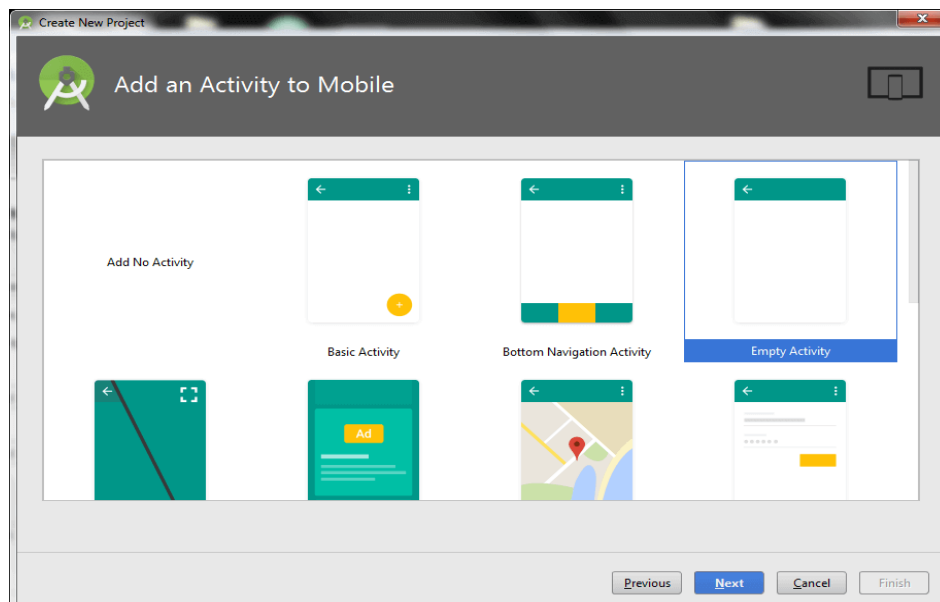
☐ **TV**
API 21: Android 5.0 (Lollipop)

☐ **Android Auto**

☐ **Android Things**
API 24: Android 7.0 (Nougat)

Previous Next Cancel Finish

Select the Activity type (Empty Activity).



Create New Project

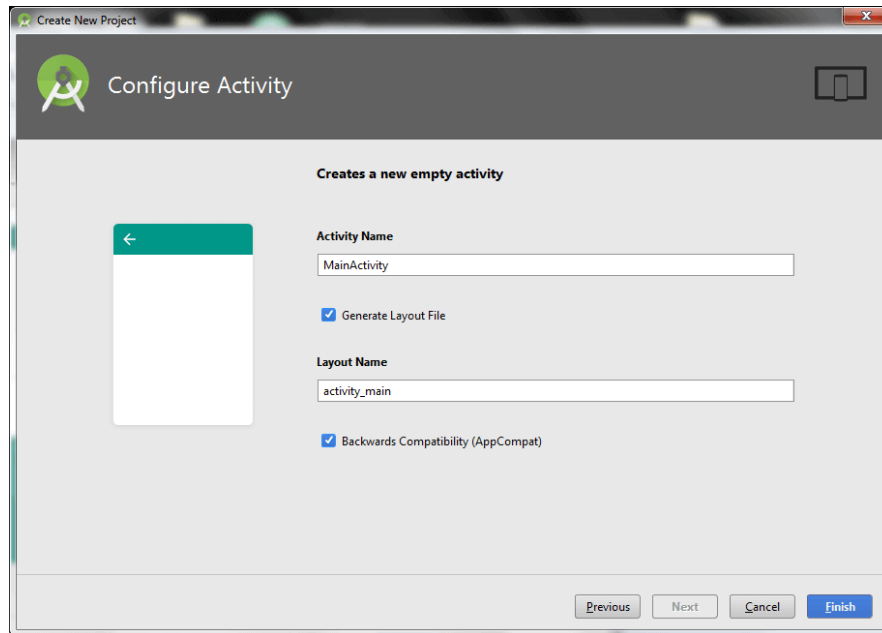
Add an Activity to Mobile

Add No Activity

Basic Activity Bottom Navigation Activity Empty Activity

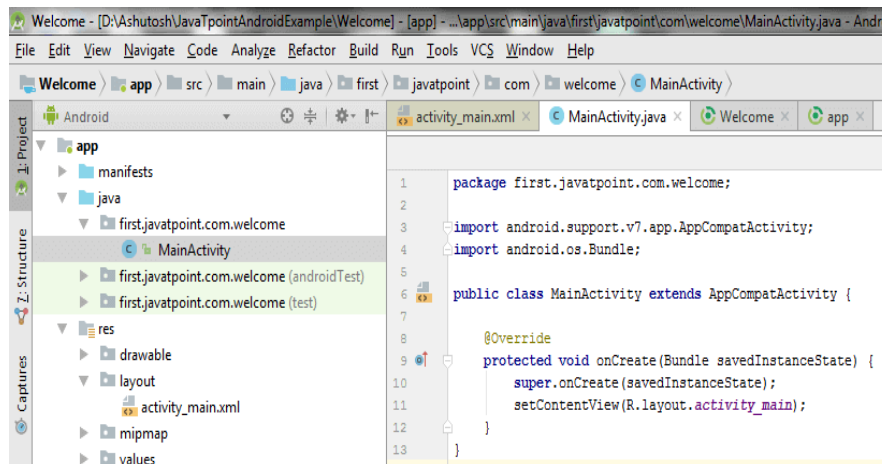
Previous Next Cancel Finish

Provide the Activity Name and click finish.



After finishing the Activity configuration, Android Studio auto generates the activity class and other required configuration files.

Now an android project has been created. You can explore the android project and see the simple program; it looks like this:



1. Write the message

File: activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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="first.javatpoint.com.welcome.MainActivity">
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello Android!"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</android.support.constraint.ConstraintLayout>
}
```

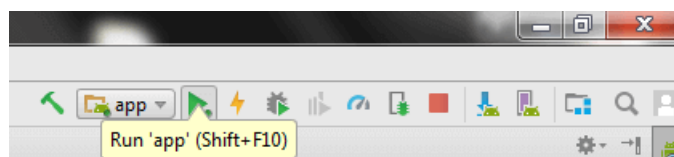
File: MainActivity.java

```
package first.javatpoint.com.welcome;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

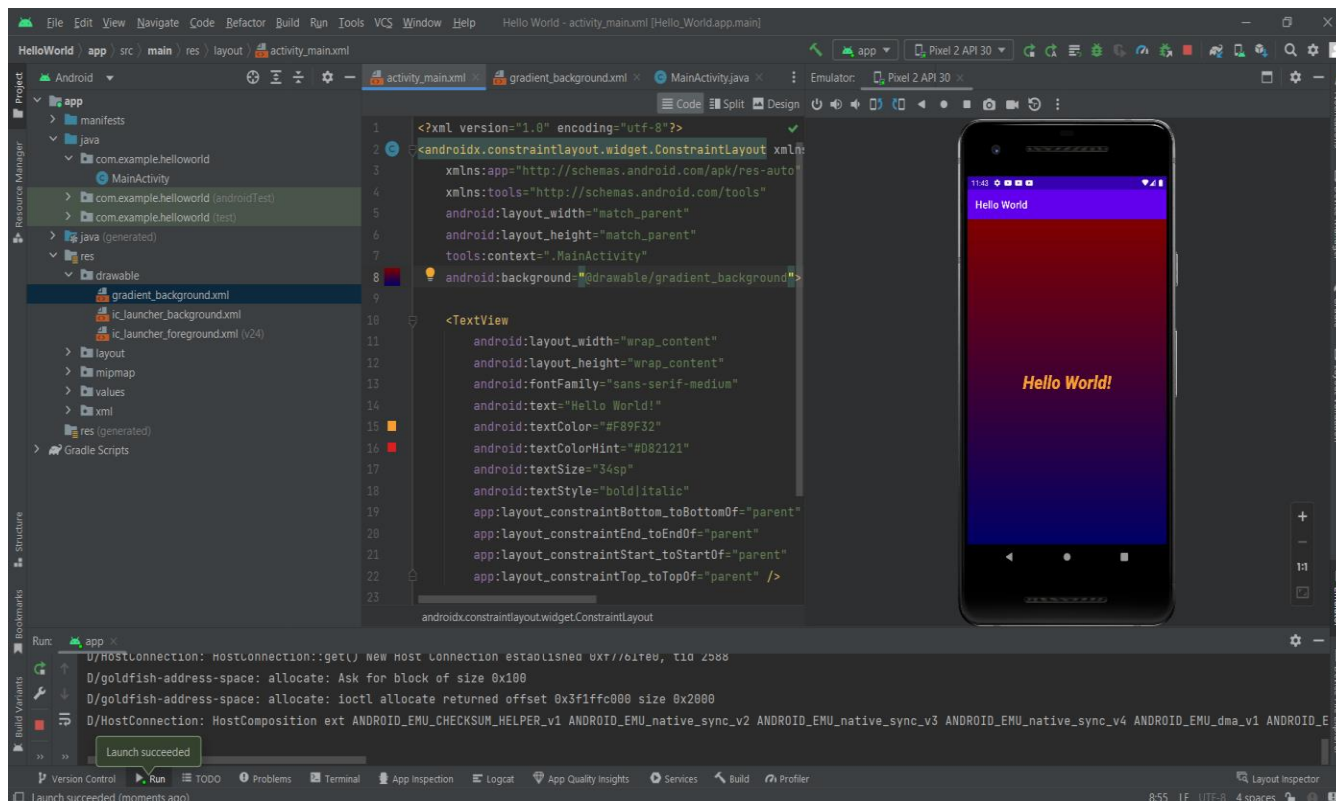
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

2. Run the android application

To run the android application, click the run icon on the toolbar or simply press Shift + F10.



The android emulator might take 2 or 3 minutes to boot. So please have patience. After booting the emulator, the android studio installs the application and launches the activity. You will see something like this:



Learning outcomes (What I have learnt):

- Learned the Android App.
- Learnt how to create the Hello Word app and
- Learnt how to create the Emulator to run the android app.

Evaluation Grid (To be created per the faculty's SOP and Assessment guidelines):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion including writing learning objectives/Outcomes. (To be submitted at the end of the day).		
2.	Post-Lab Quiz Result.		
3.	Student Engagement in Simulation/Demonstration/Performance and Controls/Pre-Lab Questions.		
	Signature of Faculty (with Date):	Total Marks Obtained:	