

# **Experiment 1.2**

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**Subject:** Mobile Application Development

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1. Aim: To design an android application to display Hello World

#### 2. 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

#### 3. Steps:

- 1. First step is to create a simple Android Application using Android studio.
- 2. You can start your application development by calling start a new androidstudio project.

In a new installation, the frame should ask Application name, package information and location



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of the project.

- 3. Configure the Hello World Project Details We'll finish creating the project byconfiguring some details about its name, location, and the API version it
- 4. Change the name of the application. Change the default Project location toyour preferred directory or just leave it as the default location.
- 5. The next level of installation should contain selecting the activity to mobile, itspecifies the default layout for Applications.
- 6. Code the java and XML files as below.
- 7. Run the app on an emulator or a physical device.

#### Main XML File Code:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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>

#### Main Java File Code:

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```
package com.example.helloworld import
androidx.appcompat.app.AppCompatActivity import
android.os.Bundle
class MainActivity : AppCompatActivity() {
  override fun onCreate(savedInstanceState: Bundle?)
       super.onCreate(savedInstanceState)
       setContentView(R.layout.activity_main)
}
Manifest File Code:
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:tools="http://schemas.android.com/tools">
  <application</pre>
       android:allowBackup="true"
       android:dataExtractionRules="@xml/data extraction rules"
       android:fullBackupContent="@xml/backup rules"
       android:icon="@mipmap/ic launcher"
       android:label="@string/app name"
       android:supportsRtl="true"
       android: theme="@style/Theme.HelloWorld"
       tools:targetApi="31">
       <activity
           android:name=".MainActivity"
           android:exported="true">
           <intent-filter>
               <action android:name="android.intent.action.MAIN" />
               <category android:name="android.intent.category.LAUNCHER"</pre>
           </intent-filter>
       </activity>
  </application>
</manifest>
```

**Output:** 



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