

IOT- MOBILE APP

by

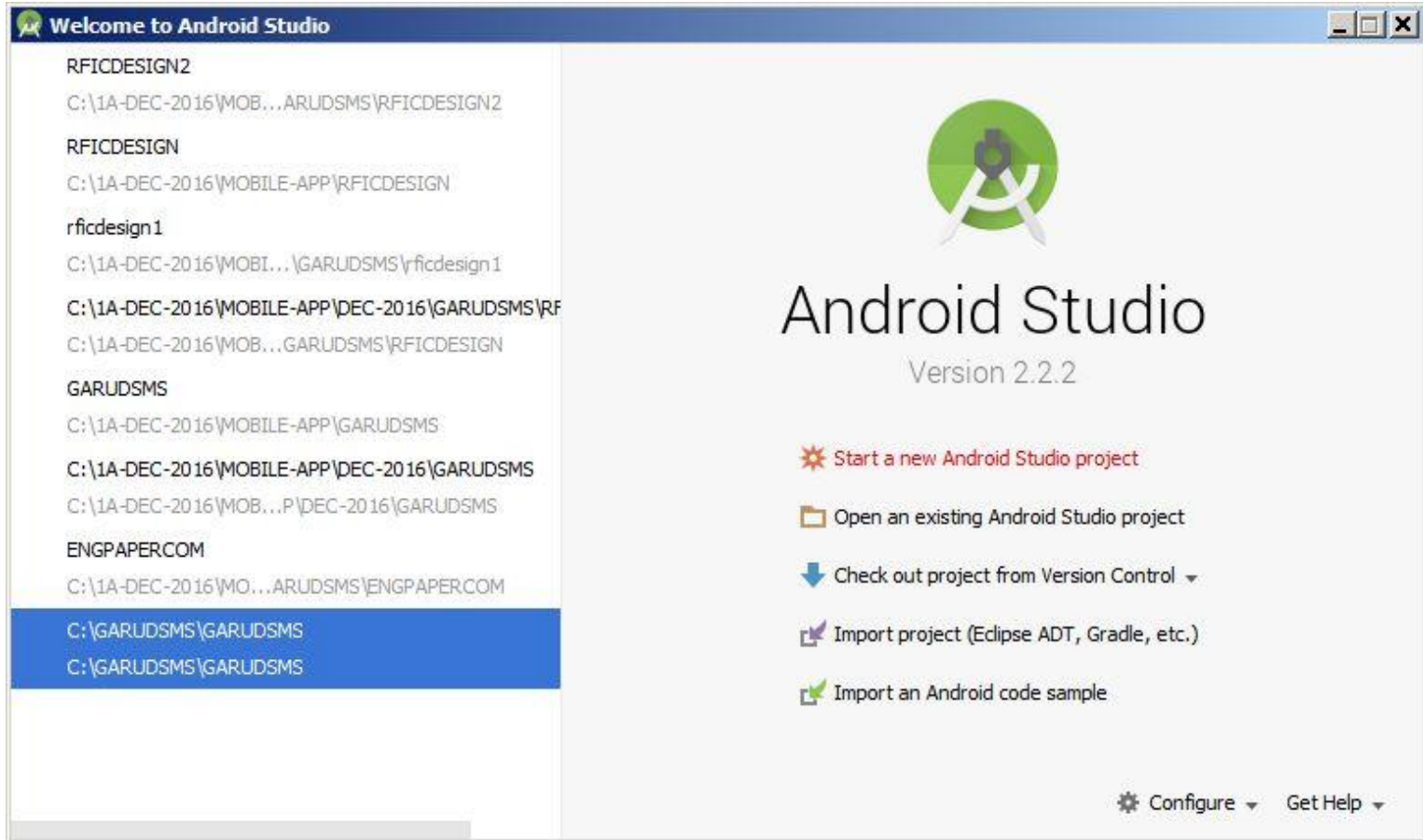
SUCHITAV KHADANGA

DEC 11 2016

DEVELOP YOUR MOBILE APP IN 30 MIN


- BASIC REQUIREMENT
 - INSTALL ANDROID STUDIO
 - INSTALL BLUESTACK (TO TEST)
 - GENERATE APK
 - TRANSFER TO YOUR PHONE
 - INSTALL AND TEST

START A NEW DESIGN



NEW PROJECT

Create New Project

 **New Project**
Android Studio

Configure your new project

Application name:

Company Domain:

Package name: [Edit](#)

Include C++ Support

Project location: ...

TARGET ANDROID PHONE

Create New Project

Target Android Devices

Select the form factors your app will run on

Different platforms may require separate SDKs

Phone and Tablet

Minimum SDK: API 15: Android 4.0.3 (IceCreamSandwich)

Lower API levels target more devices, but have fewer features available.
By targeting API 15 and later, your app will run on approximately **97.4%** of the devices that are active on the Google Play Store.
[Help me choose](#)

Wear

Minimum SDK: API 21: Android 5.0 (Lollipop)

TV

Minimum SDK: API 21: Android 5.0 (Lollipop)

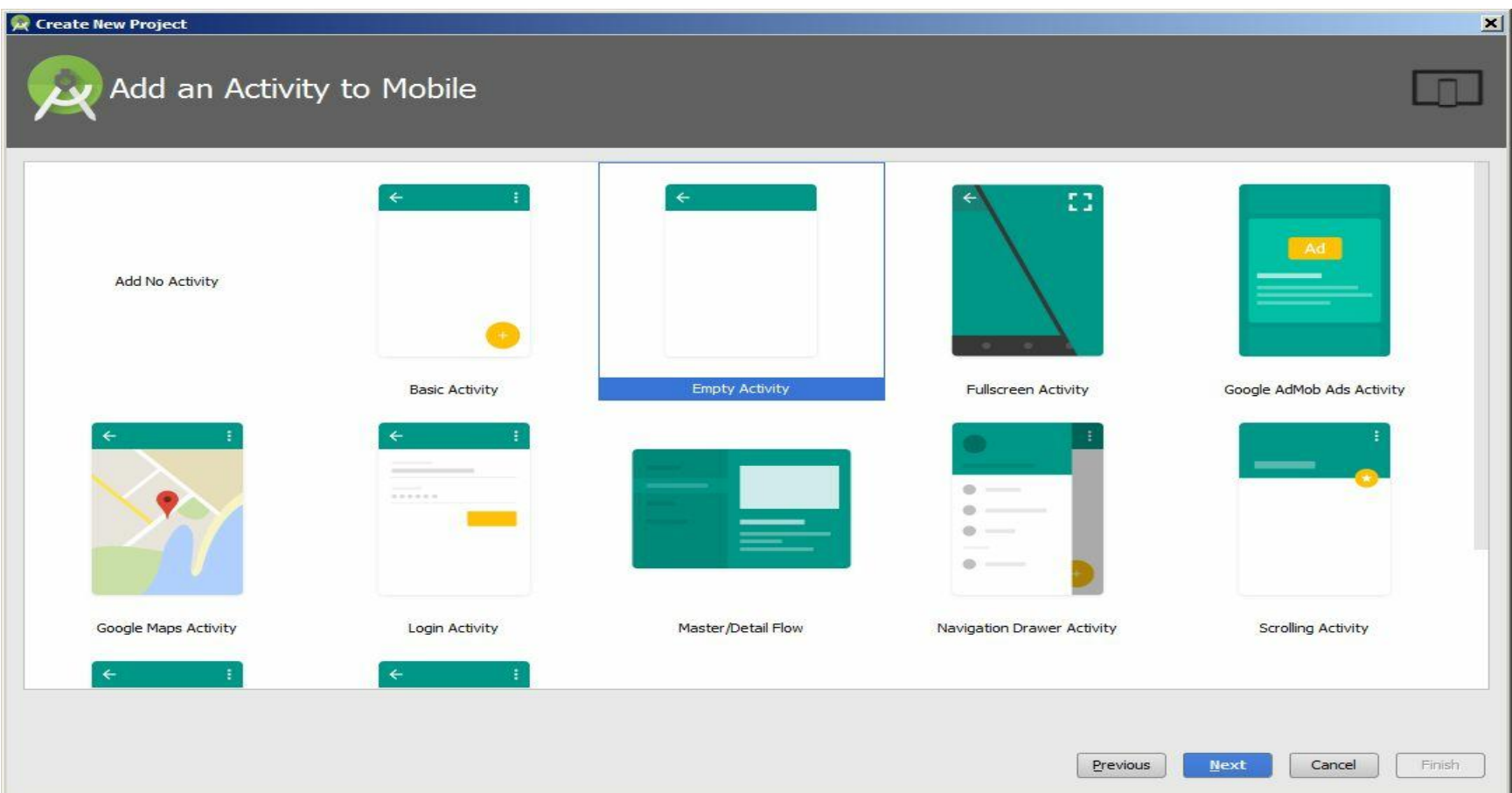
Android Auto

Glass

Minimum SDK: Glass Development Kit Preview (API 19)

Previous Next Cancel Finish

SELECT THE SCREEN



Create New Project

Add an Activity to Mobile

Add No Activity

Basic Activity

Empty Activity

Fullscreen Activity

Google AdMob Ads Activity

Google Maps Activity

Login Activity

Master/Detail Flow



Navigation Drawer Activity

Scrolling Activity

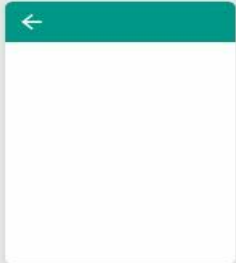
Previous Next Cancel Finish

CUSTOMIZE ACTIVITY

Create New Project

 Customize the Activity 

Creates a new empty activity


Empty Activity

Activity Name:

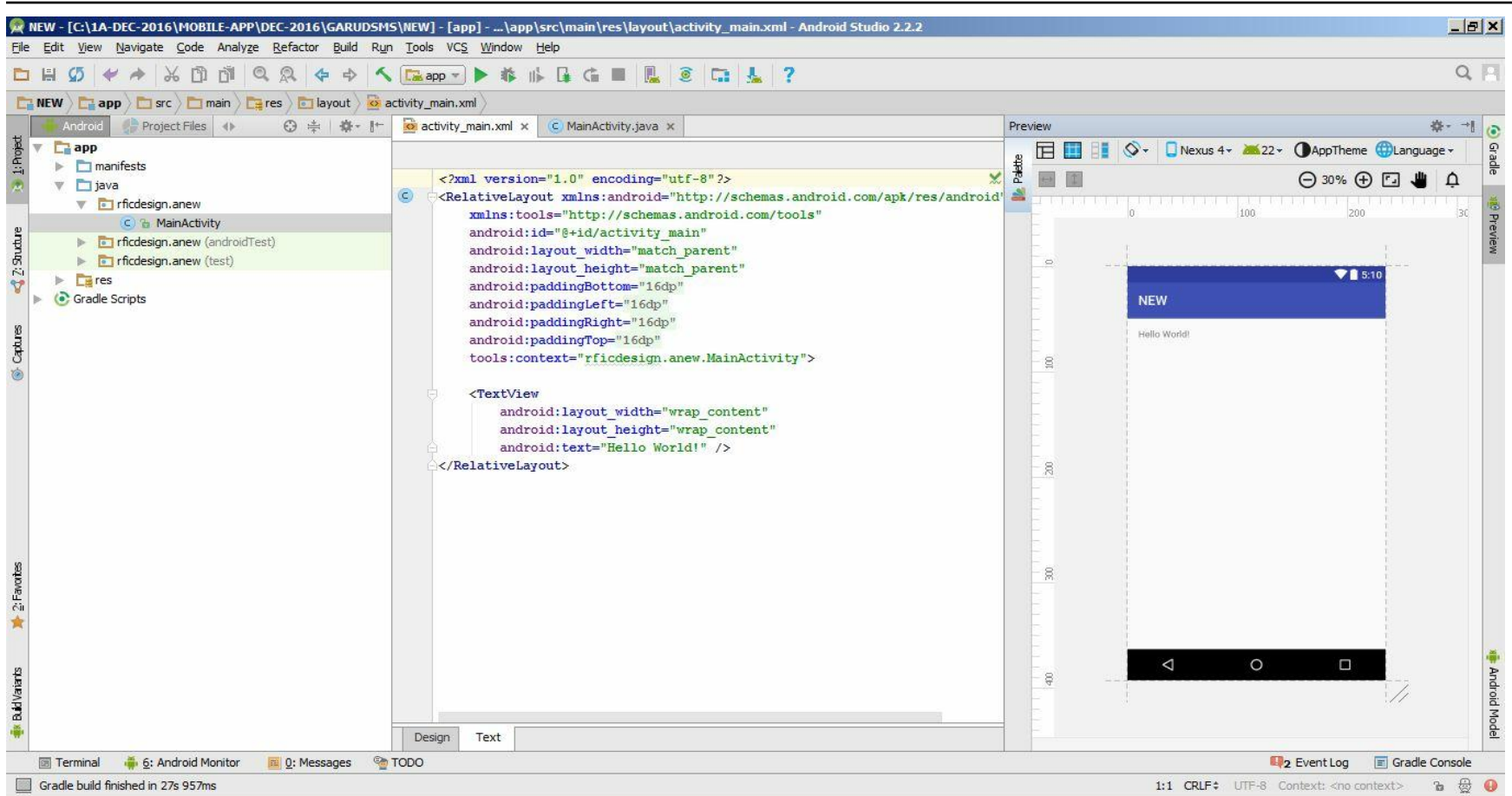
Generate Layout File

Layout Name:

Backwards Compatibility (AppCompat)

The name of the activity class to create

SUCCESS SCREEN



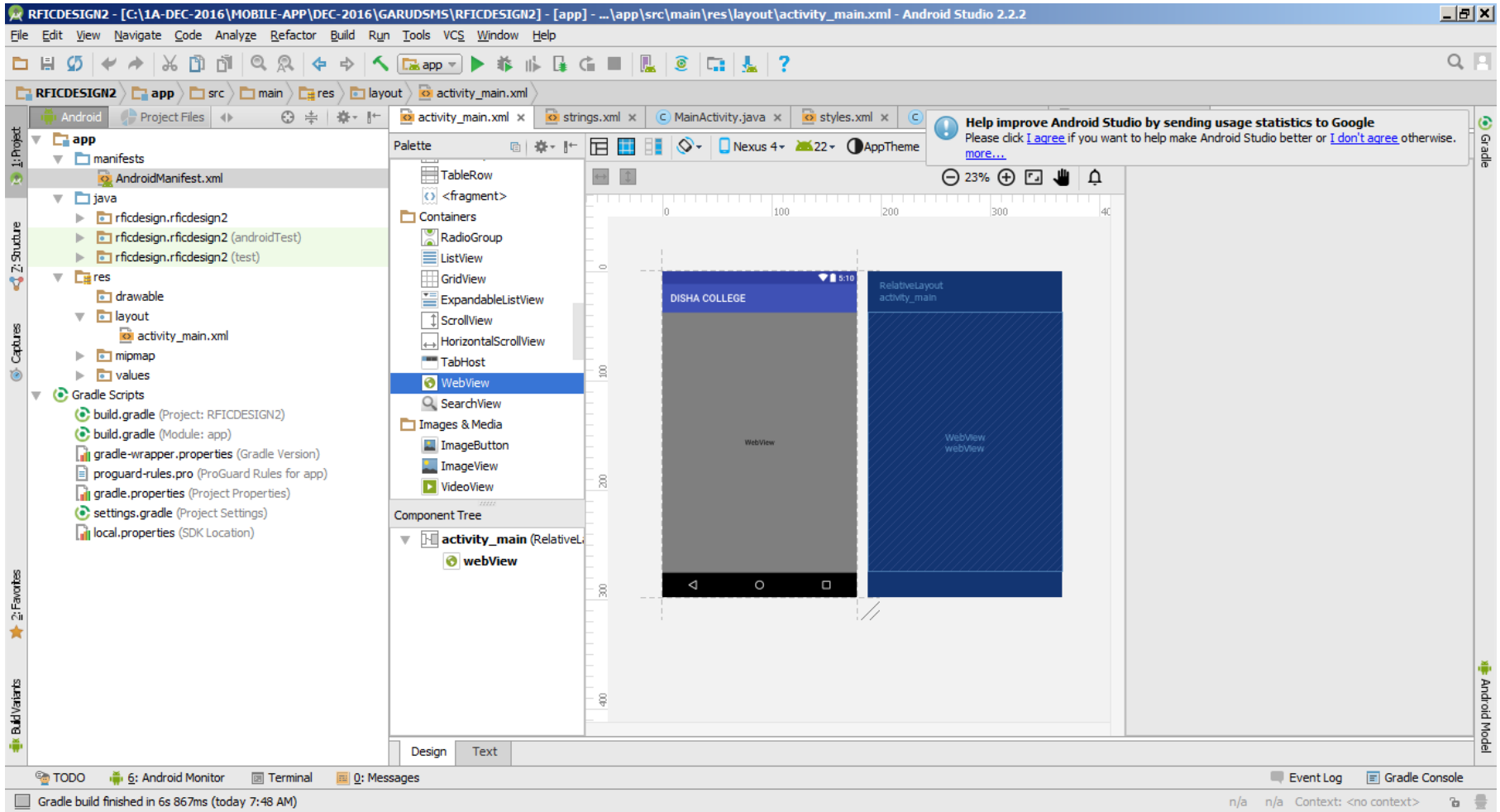
The screenshot displays the Android Studio 2.2.2 interface for a project named 'NEW'. The main window shows the XML layout for 'activity_main.xml' in the code editor. The XML defines a RelativeLayout with a TextView containing the text 'Hello World!'. The design preview on the right shows a mobile device screen with a blue header bar labeled 'NEW' and the text 'Hello World!' below it. The status bar at the top of the preview shows the time as 5:10. The bottom of the screen shows the system tray with various icons and the status bar indicating 'Gradle build finished in 27s 957ms'.

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="16dp"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    tools:context="rficdesign.anew.MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!" />

</RelativeLayout>
```


ADD WEB VIEW

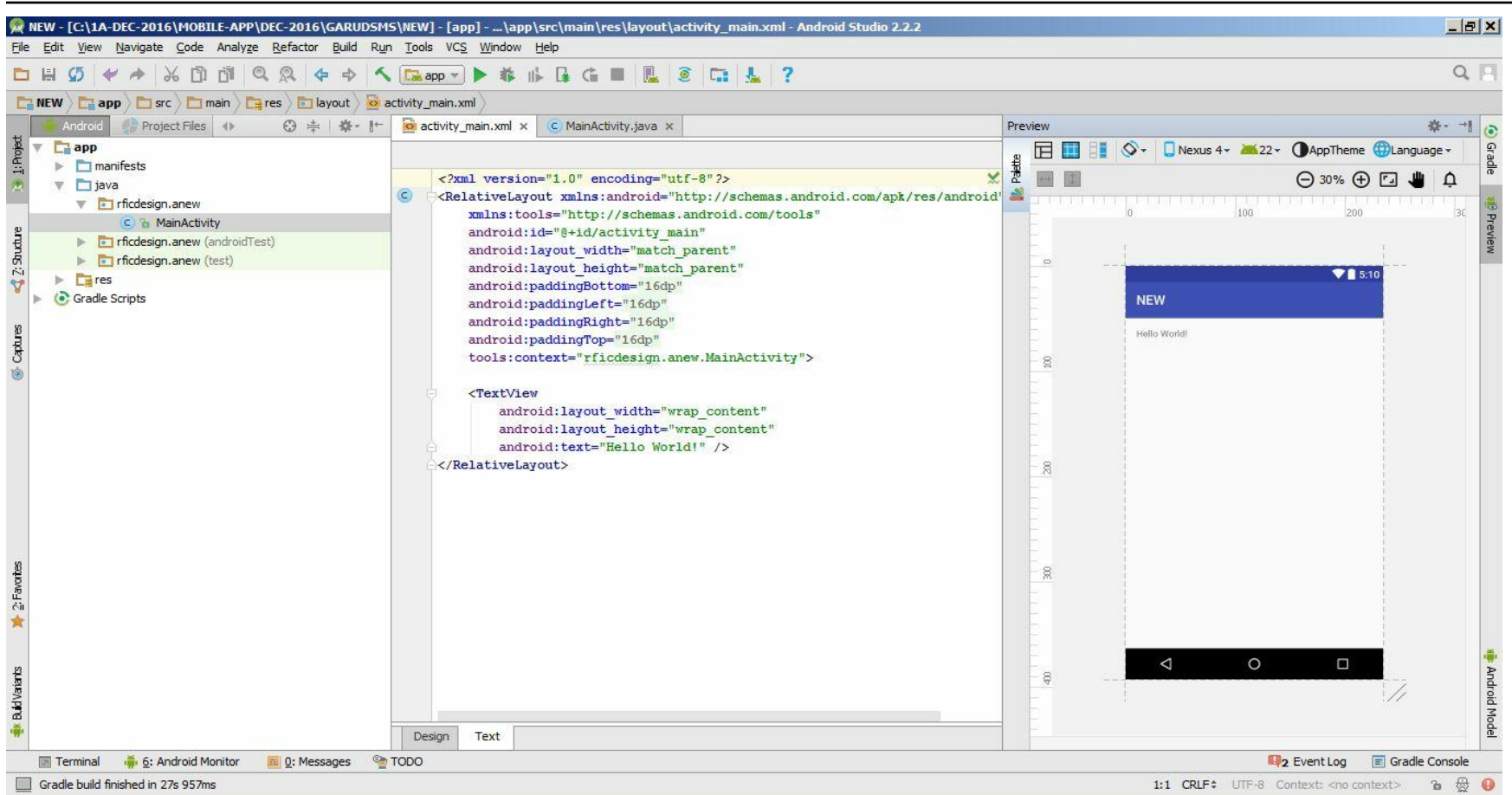


The screenshot displays the Android Studio 2.2.2 interface. The top toolbar shows various development tools. The main workspace is divided into several panels:

- Project Explorer (Left):** Shows the project structure for 'RFICDESIGN2'. The 'res' folder is expanded, showing 'layout' and 'activity_main.xml'.
- Palette (Middle-Left):** Lists various UI components. 'WebView' is highlighted in the 'Containers' section.
- Component Tree (Bottom-Left):** Shows the hierarchy of the 'activity_main' layout, with 'webView' added as a child of 'RelativeLayout'.
- Design View (Center):** Displays a mobile device mockup. The top bar contains the text 'DISHA COLLEGE'. A 'WebView' component is visible on the screen.
- Help Dialog (Top-Right):** A notification box asking to 'Help improve Android Studio by sending usage statistics to Google'.

At the bottom of the screen, the status bar indicates 'Gradle build finished in 6s 867ms (today 7:48 AM)'.

CHANGE HEADER NAME



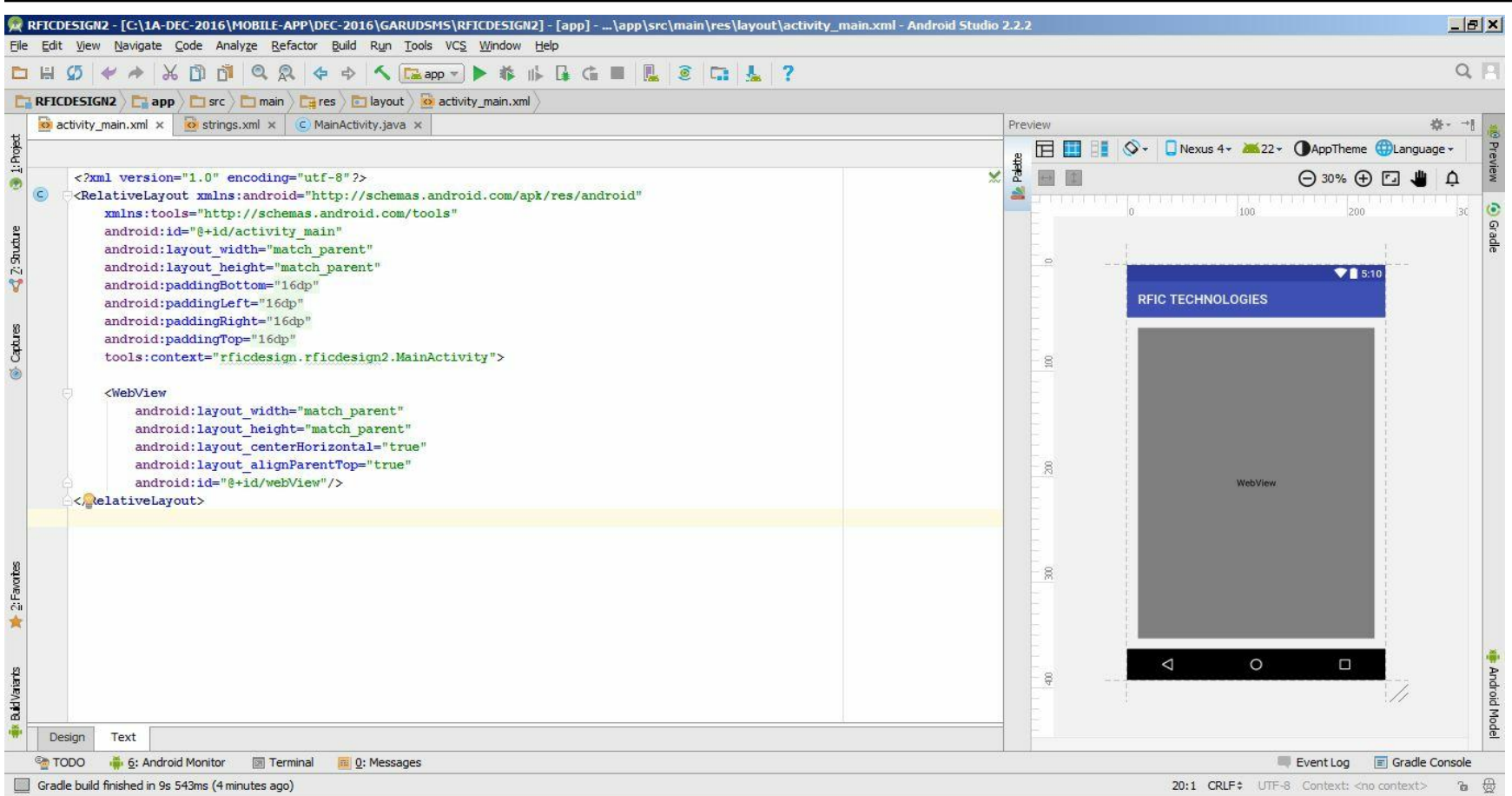
The screenshot displays the Android Studio interface with the following components:

- Project Structure:** Located on the left, it shows a project named 'app' with a package 'rficdesign.anew' containing a 'MainActivity' class.
- XML Editor:** The central pane shows the XML code for 'activity_main.xml':


```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="16dp"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    tools:context="rficdesign.anew.MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!" />
</RelativeLayout>
```
- Preview:** The right-hand pane shows a visual preview of the app on a Nexus 4 device. It features a blue header bar with the text 'NEW' and a white area below it with the text 'Hello World!'.
- Status Bar:** The bottom of the screen shows the system tray with 'Terminal', 'Android Monitor', 'Messages', and 'TODO' tabs. The status bar at the very bottom indicates 'Gradle build finished in 27s 957ms' and '1:1 CRLF UTF-8 Context: <no context>'.

CHANGE THE LAYOUT



The screenshot displays the Android Studio interface for an application named 'RFICDESIGN2'. The main editor shows the XML code for 'activity_main.xml' in Text mode. The code defines a RelativeLayout with a blue header bar and a central WebView.

```

<?xml version="1.0" encoding="utf-8" ?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="16dp"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    tools:context="rficdesign.rficdesign2.MainActivity">

    <WebView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_centerHorizontal="true"
        android:layout_alignParentTop="true"
        android:id="@+id/webView"/>

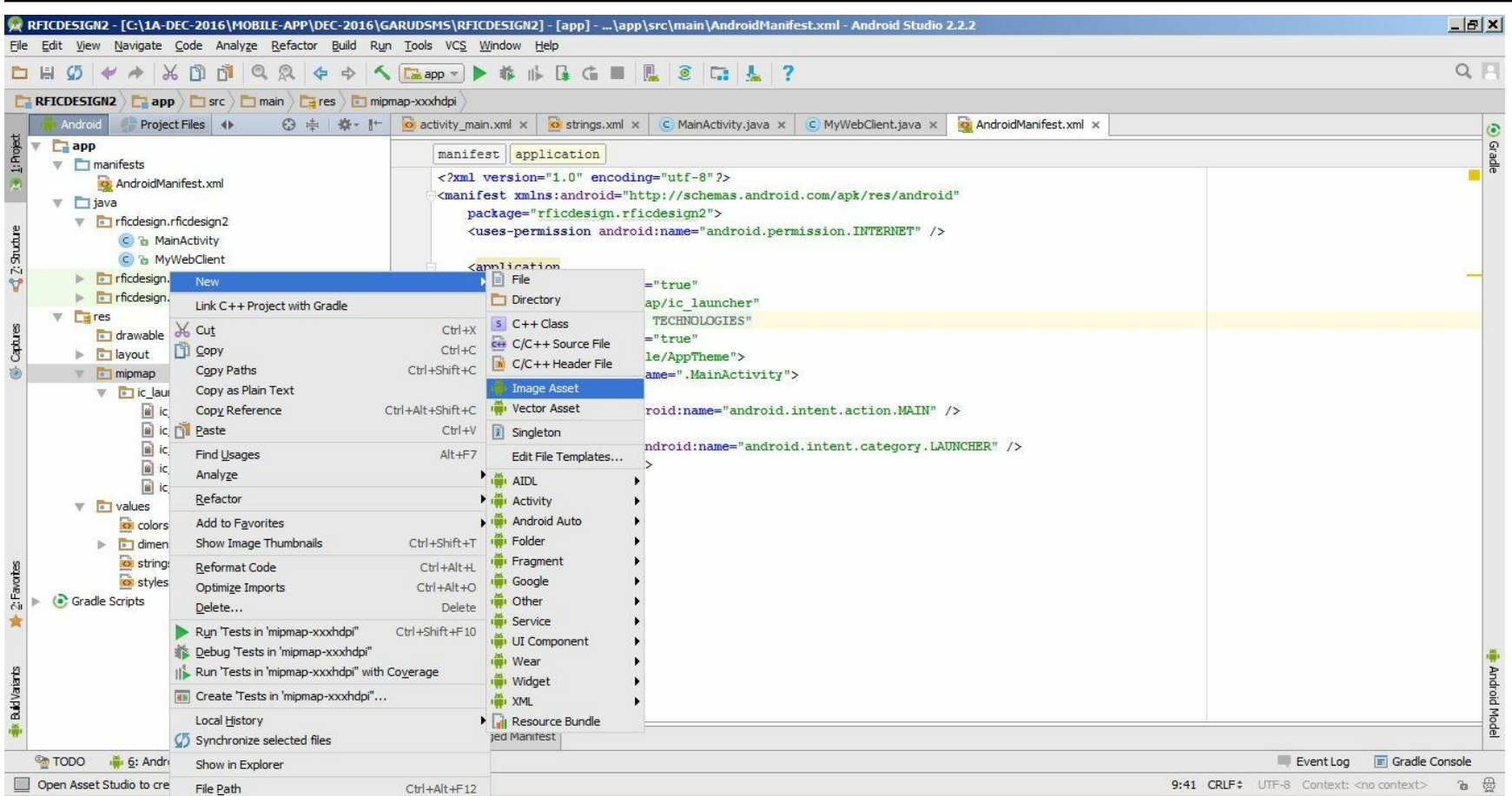
</RelativeLayout>

```

The Design Preview window on the right shows a visual representation of the layout on a Nexus 4 device. It features a blue header bar with the text 'RFIC TECHNOLOGIES' and a central gray area labeled 'WebView'. The status bar at the top shows the time as 5:10. The bottom navigation bar is visible with the back, home, and recent apps icons.

The bottom status bar of the IDE shows: 'Gradle build finished in 9s 543ms (4 minutes ago)' and '20:1 CRLF: UTF-8 Context: <no context>'.

ADD YOUR LOGO

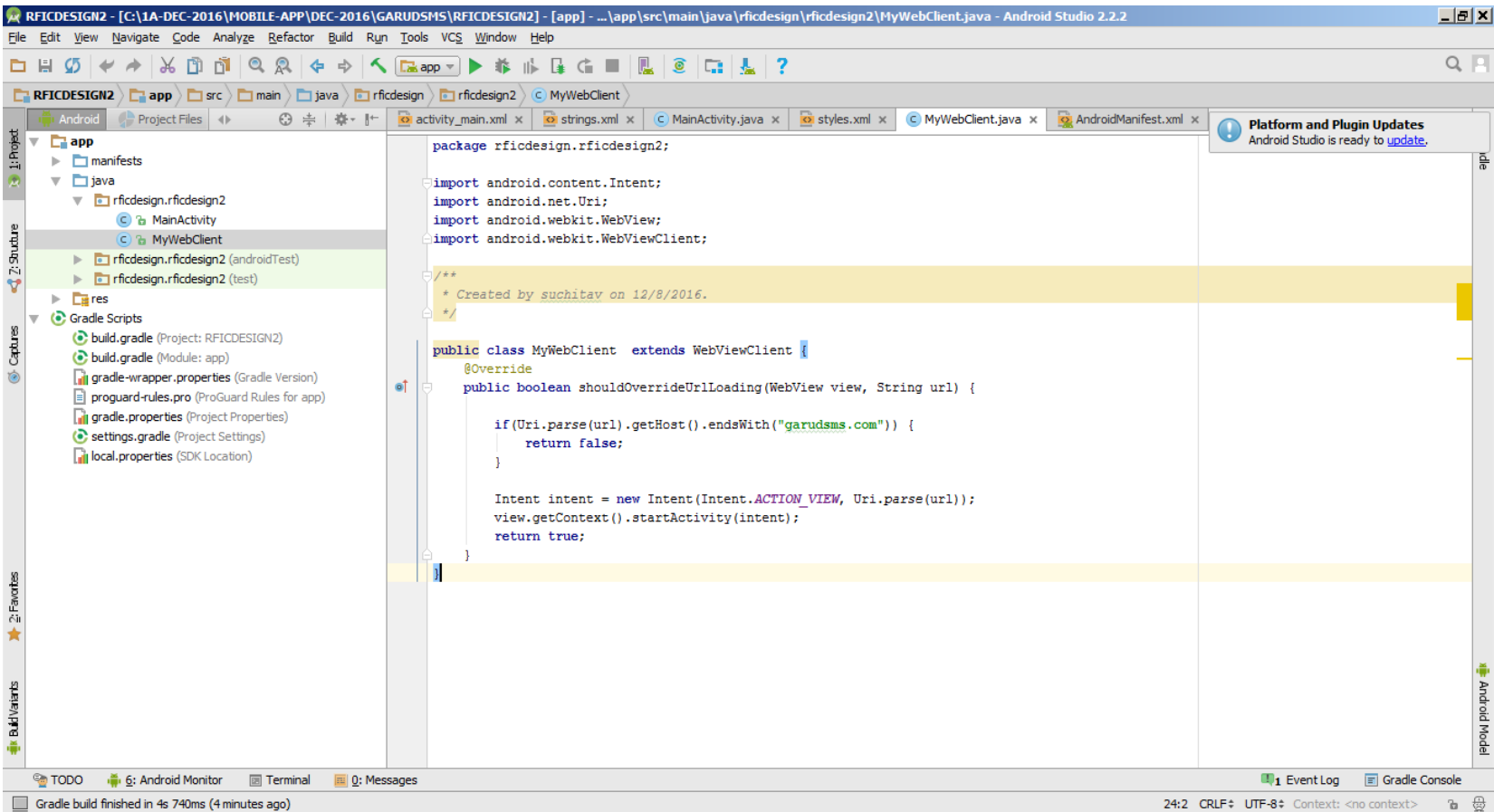


The screenshot shows the Android Studio interface. The 'res/mipmap-xxxhdpi' folder is selected in the Project view. The 'New' context menu is open, and the 'Image Asset' option is highlighted. The background shows the AndroidManifest.xml file with the following code:

```
<?xml version="1.0" encoding="utf-8" ?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="rficdesign.rficdesign2">
    <uses-permission android:name="android.permission.INTERNET" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity
            android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

ADD MY WEB CLIENT



RFICDESIGN2 - [C:\1A-DEC-2016\MOBILE-APP\DEC-2016\GARUDSMS\RFICDESIGN2] - [app] - ...\app\src\main\java\rficdesign\rficdesign2\MyWebClient.java - Android Studio 2.2.2

```

package rfcdesign.rficdesign2;

import android.content.Intent;
import android.net.Uri;
import android.webkit.WebView;
import android.webkit.WebViewClient;

/**
 * Created by suchitav on 12/8/2016.
 */

public class MyWebClient extends WebViewClient {
    @Override
    public boolean shouldOverrideUrlLoading(WebView view, String url) {

        if(Uri.parse(url).getHost().endsWith("garudsms.com")) {
            return false;
        }

        Intent intent = new Intent(Intent.ACTION_VIEW, Uri.parse(url));
        view.getContext().startActivity(intent);
        return true;
    }
}

```

Platform and Plugin Updates
Android Studio is ready to [update](#).

24:2 CRLF UTF-8 Context: <no context>

Gradle build finished in 4s 740ms (4 minutes ago)

ADD URL :

□ FILE=MainActivity.java

□ @Override

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);
```

```
    WebView view = (WebView) findViewById(R.id.webView);  
    view.setWebViewClient(new MyWebClient());
```

```
    view.loadUrl("http://www.garudsms.com/");
```

```
}
```

```
}
```

BUILD APK

- YOUR MOBILE APP IS READY

- ANY PROBLEM COMPLETE SOURCE CODE IS AVAILABLE FREE HERE

OPENSOURCE

- ❑ THE SOURCE CODE RFICDESIGN2 IS AVAILABLE AT <http://www.garudsms.com/download/rficdesign2.zip>
- ❑ COPY THE SOURCE CODE OF BASIC MOBILE APP RFICDESIGN2
- ❑ change image file in res mipmap-YOUR LOGO
- ❑ change in string.xml-YOUR COMPANY NAME
- ❑ android manifest change android icon-CHANGE REFERENCE
- ❑ change url for the web-YOUR WEB URL
- ❑ GENERATE APK FILE-MOBILE APP

THANKS
