**Network connection**

**MainActivity.java**

package com.example.networkconnection;  
  
import android.app.ProgressDialog;  
import android.graphics.Bitmap;  
import android.graphics.BitmapFactory;  
import android.net.ConnectivityManager;  
import android.os.Bundle;  
import android.os.Handler;  
import android.os.Message;  
import android.support.v7.app.AppCompatActivity;  
import android.view.View;  
import android.widget.Button;  
import android.widget.ImageView;  
import android.widget.Toast;  
  
import java.io.IOException;  
import java.io.InputStream;  
import java.net.HttpURLConnection;  
import java.net.MalformedURLException;  
import java.net.URL;  
import java.net.URLConnection;  
  
public class MainActivity extends AppCompatActivity {  
 private ProgressDialog progressDialog;  
 private Bitmap bitmap = null;  
 Button b1;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 b1 = (Button) findViewById(R.id.*button*);  
  
 b1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 checkInternetConenction();  
 downloadImage("http://www.tutorialspoint.com/green/images/logo.png");  
 }  
 });  
 }  
  
 private void downloadImage(String urlStr) {  
 progressDialog = ProgressDialog.*show*(this, "", "Downloading Image from " + urlStr);  
 final String url = urlStr;  
  
 new Thread() {  
 public void run() {  
 InputStream in = null;  
  
 Message msg = Message.*obtain*();  
 msg.what = 1;  
  
 try {  
 in = openHttpConnection(url);  
 bitmap = BitmapFactory.*decodeStream*(in);  
 Bundle b = new Bundle();  
 b.putParcelable("bitmap", bitmap);  
 msg.setData(b);  
 in.close();  
 }catch (IOException e1) {  
 e1.printStackTrace();  
 }  
 messageHandler.sendMessage(msg);  
 }  
 }.start();  
 }  
  
 private InputStream openHttpConnection(String urlStr) {  
 InputStream in = null;  
 int resCode = -1;  
  
 try {  
 URL url = new URL(urlStr);  
 URLConnection urlConn = url.openConnection();  
  
 if (!(urlConn instanceof HttpURLConnection)) {  
 throw new IOException("URL is not an Http URL");  
 }  
  
 HttpURLConnection httpConn = (HttpURLConnection) urlConn;  
 httpConn.setAllowUserInteraction(false);  
 httpConn.setInstanceFollowRedirects(true);  
 httpConn.setRequestMethod("GET");  
 httpConn.connect();  
 resCode = httpConn.getResponseCode();  
  
 if (resCode == HttpURLConnection.*HTTP\_OK*) {  
 in = httpConn.getInputStream();  
 }  
 }catch (MalformedURLException e) {  
 e.printStackTrace();  
 }catch (IOException e) {  
 e.printStackTrace();  
 }  
 return in;  
 }  
  
 private Handler messageHandler = new Handler() {  
 public void handleMessage(Message msg) {  
 super.handleMessage(msg);  
 ImageView img = (ImageView) findViewById(R.id.*imageView*);  
 img.setImageBitmap((Bitmap) (msg.getData().getParcelable("bitmap")));  
 progressDialog.show();  
 }  
 };  
  
 private boolean checkInternetConenction() {  
 // get Connectivity Manager object to check connection  
 ConnectivityManager connec  
 =(ConnectivityManager)getSystemService(getBaseContext().*CONNECTIVITY\_SERVICE*);  
  
 // Check for network connections  
 if ( connec.getNetworkInfo(0).getState() ==  
 android.net.NetworkInfo.State.*CONNECTED* ||  
 connec.getNetworkInfo(0).getState() ==  
 android.net.NetworkInfo.State.*CONNECTING* ||  
 connec.getNetworkInfo(1).getState() ==  
 android.net.NetworkInfo.State.*CONNECTING* ||  
 connec.getNetworkInfo(1).getState() == android.net.NetworkInfo.State.*CONNECTED* ) {  
 Toast.*makeText*(this, " Connected ", Toast.*LENGTH\_LONG*).show();  
 return true;  
 }else if (  
 connec.getNetworkInfo(0).getState() ==  
 android.net.NetworkInfo.State.*DISCONNECTED* ||  
 connec.getNetworkInfo(1).getState() ==  
 android.net.NetworkInfo.State.*DISCONNECTED* ) {  
 Toast.*makeText*(this, " Not Connected ", Toast.*LENGTH\_LONG*).show();  
 return false;  
 }  
 return false;  
 }  
  
}

**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: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="Network Connection"  
 android:id="@+id/textView"  
 android:textSize="25sp"  
 android:layout\_centerHorizontal="true" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text=" "  
 android:id="@+id/textView2"  
 android:layout\_below="@+id/textView"  
 android:layout\_alignRight="@+id/textView"  
 android:layout\_alignEnd="@+id/textView"  
 android:textColor="#ff36ff15"  
 android:textIsSelectable="false"  
 android:textSize="35dp" />  
  
 <ImageView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/imageView"  
 android:layout\_below="@+id/textView2"  
 android:layout\_centerHorizontal="true" />  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Click"  
 android:id="@+id/button"  
 android:layout\_below="@+id/imageView"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="76dp" />  
  
</RelativeLayout>

**Androidmainefest.xml**

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.networkconnection">  
 <uses-permission android:name="android.permission.INTERNET"></uses-permission>  
 <uses-permission android:name="android.permission.ACCESS\_NETWORK\_STATE"></uses-permission>  
 <application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.Networkconnection">  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
 </application>  
  
</manifest>