*<?***xml version="1.0" encoding="utf-8"***?>*

<**RelativeLayout 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"**>

<**Button**

**android:id="@+id/b"**

**android:layout\_width="match\_parent"**

**android:layout\_height="wrap\_content"**

**android:layout\_marginTop="50dip"**

**android:text="Start Music"** />

</**RelativeLayout**>

**package** com.example.archana.a26\_2\_asynctask\_music;

**import** android.support.v7.app.AppCompatActivity;

**import** android.os.Bundle;

**import** java.io.BufferedInputStream;

**import** java.io.File;

**import** java.io.FileOutputStream;

**import** java.io.IOException;

**import** java.io.InputStream;

**import** java.io.OutputStream;

**import** java.net.URL;

**import** java.net.URLConnection;

**import** android.app.Activity;

**import** android.app.Dialog;

**import** android.app.ProgressDialog;

**import** android.media.AudioManager;

**import** android.media.MediaPlayer;

**import** android.media.MediaPlayer.OnCompletionListener;

**import** android.net.Uri;

**import** android.os.AsyncTask;

**import** android.os.Bundle;

**import** android.os.Environment;

**import** android.util.Log;

**import** android.view.View;

**import** android.widget.Button;

**import** android.widget.Toast;

**public class** MainActivity **extends** Activity

**implements** View.OnClickListener{

*// Button to download and play Music*

**private** Button **btnPlayMusic**;

*// Media Player Object*

**private** MediaPlayer **mPlayer**;

*// Music resource URL*

**private static** String *file\_url* =

**"http://android.programmerguru.com/"** +

**"wp-content/uploads/2014/01/jai\_ho.mp3"**;

@Override

**public void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.***activity\_main***);

*// Show Download Music Button*

**btnPlayMusic** = findViewById(R.id.***b***);

*// Download Music Button click listener*

**btnPlayMusic**.setOnClickListener(**this**);

}

@Override

**public void** onClick(View view) {

*// Downloaded Music File path in SD Card*

File file = **new** File(Environment.

*getExternalStorageDirectory*().

getPath()

+**"/jai\_ho.mp3"**);

*// Check if the Music file already exists*

**if** (file.exists()) {

Toast.*makeText*(getApplicationContext(),

**"File already exist "** +

**"at "**+ Environment.*getExternalStorageDirectory*()

.getPath() +

**" , playing Music"**, Toast.***LENGTH\_LONG***).show();

*// Play Music*

playMusic();

*// If the Music File doesn't*

*// exist in SD card (Not yet downloaded)*

} **else** {

Toast.*makeText*(getApplicationContext(),

**"File doesn't exist "** +

**"under SD Card, "** +

**"downloading Mp3 from Internet"**,

Toast.***LENGTH\_LONG***).show();

*// Trigger Async Task (onPreExecute method)*

DownloadMusicfromInternet music =

**new** DownloadMusicfromInternet();

music.execute(*file\_url*);

}

}

*// Async Task Class*

**class** DownloadMusicfromInternet **extends**

AsyncTask<String, String, String> {

ProgressDialog **prgDialog**;

*// Show Progress bar before downloading Music*

@Override

**protected void** onPreExecute() {

**super**.onPreExecute();

*// Shows Progress Bar Dialog and*

*// then call doInBackground method*

**prgDialog** = **new** ProgressDialog(

MainActivity.**this**);

**prgDialog**.setMessage

(**"Downloading Mp3 file. "** +

**"Please wait..."**);

**prgDialog**.setIndeterminate(**false**);

**prgDialog**.setProgressStyle

(ProgressDialog.***STYLE\_HORIZONTAL***);

**prgDialog**.setCancelable(**false**);

**prgDialog**.show();

}

*// Download Music File from Internet*

@Override

**protected** String doInBackground

(String... f\_url) {

**int** count;

**try** {

URL url = **new** URL(f\_url[0]);

URLConnection conection =

url.openConnection();

conection.connect();

*// Get Music file length*

**int** lenghtOfFile =

conection.getContentLength();

*// input stream to read file - with 8k buffer*

InputStream input =

**new** BufferedInputStream

(url.openStream(),

10\*1024);

*// Output stream to write file in SD card*

OutputStream output =

**new** FileOutputStream

(Environment.

*getExternalStorageDirectory*().

getPath()+**"/jai\_ho.mp3"**);

**byte** data[] = **new byte**[1024];

**long** total = 0;

**while** ((count = input.read(data)) != -1) {

total += count;

*// Publish the progress which triggers onProgressUpdate method*

publishProgress(**""** +

(**int**) ((total \* 100) /

lenghtOfFile));

*// Write data to file*

output.write(data, 0, count);

}

*// Flush output*

output.flush();

*// Close streams*

output.close();

input.close();

} **catch** (Exception e) {

Log.*e*(**"Error: "**, e.getMessage());

}

**return null**;

}

*// While Downloading Music File*

**protected void** onProgressUpdate

(String... progress) {

*// Set progress percentage*

**prgDialog**.setProgress

(Integer.*parseInt*(progress[0]));

}

*// Once Music File is downloaded*

@Override

**protected void** onPostExecute(String file\_url) {

*// Dismiss the dialog after the*

*// Music file was downloaded*

**prgDialog**.dismiss();

Toast.*makeText*(getApplicationContext(),

**"Download complete, "** +

**"playing Music"**,

Toast.***LENGTH\_LONG***).show();

*// Play the music*

playMusic();

}

}

*// Play Music*

**protected void** playMusic(){

*// Read Mp3 file present under SD card*

Uri myUri1 =

Uri.*parse*(**"file:///sdcard/jai\_ho.mp3"**);

**mPlayer** = **new** MediaPlayer();

**mPlayer**.setAudioStreamType(

AudioManager.***STREAM\_MUSIC***);

**try** {

**mPlayer**.setDataSource

(getApplicationContext(), myUri1);

**mPlayer**.prepare();

*// Start playing the Music file*

**mPlayer**.start();

**mPlayer**.setOnCompletionListener

(**new** OnCompletionListener() {

**public void** onCompletion(MediaPlayer mp) {

*//* ***TODO Auto-generated method stub***

*// Once Music is completed playing,*

*// enable the button*

**btnPlayMusic**.setEnabled(**true**);

Toast.*makeText*(getApplicationContext(),

**"Music completed playing"**,

Toast.***LENGTH\_LONG***).show();

}

});

} **catch** (IllegalArgumentException e) {

Toast.*makeText*(getApplicationContext(),

**"You might not set the URI correctly!"**, Toast.***LENGTH\_LONG***).show();

} **catch** (SecurityException e) {

Toast.*makeText*(getApplicationContext(),

**"URI cannot be accessed, "** +

**"permissed needed"**,

Toast.***LENGTH\_LONG***).show();

} **catch** (IllegalStateException e) {

Toast.*makeText*(getApplicationContext(),

**"Media Player is not in correct state"**, Toast.***LENGTH\_LONG***).show();

} **catch** (IOException e) {

Toast.*makeText*(getApplicationContext(),

**"IO Error occured"**,

Toast.***LENGTH\_LONG***).show();

}

}

}

Give the below permissions inside Manifest File

<**uses-permission android:name=**

**"android.permission.INTERNET"** />

*<!-- Permission: Writing to SDCard -->*

<**uses-permission android:name=**

**"android.permission.WRITE\_EXTERNAL\_STORAGE"** />

**Don’t forget to give explicit permission in your device (Settings-> Apps-> click on your app -> Click on no permissions granted-> enable it)**