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"**

**android:background="#FFFFFF"**

**android:paddingBottom="@dimen/activity\_vertical\_margin"**

**android:paddingLeft="@dimen/activity\_horizontal\_margin"**

**android:paddingRight="@dimen/activity\_horizontal\_margin"**

**android:paddingTop="@dimen/activity\_vertical\_margin"**

**tools:context=".MainActivity"** >

<**Button**

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

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

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

**android:layout\_alignParentTop="true"**

**android:layout\_centerHorizontal="true"**

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

<**Button**

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

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

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

**android:layout\_alignLeft="@+id/btnStartService"**

**android:layout\_below="@+id/btnStartService"**

**android:layout\_marginTop="18dp"**

**android:text="Bind Service"** />

<**Button**

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

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

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

**android:layout\_below="@+id/btnBindService"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="18dp"**

**android:text="Request Service"** />

<**Button**

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

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

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

**android:layout\_alignLeft="@+id/btnRequestService"**

**android:layout\_below="@+id/btnRequestService"**

**android:layout\_centerVertical="true"**

**android:layout\_marginTop="18dp"**

**android:text="Unbind Service"** />

<**Button**

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

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

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

**android:layout\_below="@+id/btnUnbindService"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="18dp"**

**android:text="Stop Service"** />

</**RelativeLayout**>

MainActivity.java

**package** com.example.jevitha.a24\_1\_boundservice;

**import** android.content.ComponentName;

**import** android.content.Context;

**import** android.content.Intent;

**import** android.content.ServiceConnection;

**import** android.os.IBinder;

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

**import** android.os.Bundle;

**import** android.util.Log;

**import** android.view.Menu;

**import** android.view.MenuItem;

**import** android.view.View;

**import** android.widget.Button;

**import** android.widget.TextView;

**import** android.widget.Toast;

**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener {

**private** Button **btnStartService**;

**private** Button **btnStopService**;

**private** Button **btnBindService**;

**private** Button **btnUnbindService**;

**private** Button **btnRequestService**;

**private boolean isServiceBound** = **false**;

BoundService **mBoundService**;

@Override

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

**super**.onCreate(savedInstanceState);

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

**btnStartService** = (Button)findViewById(R.id.***btnStartService***);

**btnStartService**.setOnClickListener(**this**);

**btnStopService** = (Button)findViewById(R.id.***btnStopService***);

**btnStopService**.setOnClickListener(**this**);

**btnBindService** = (Button)findViewById(R.id.***btnBindService***);

**btnBindService**.setOnClickListener(**this**);

**btnUnbindService** = (Button)findViewById(R.id.***btnUnbindService***);

**btnUnbindService**.setOnClickListener(**this**);

**btnRequestService** = (Button)findViewById(R.id.***btnRequestService***);

**btnRequestService**.setOnClickListener(**this**);

}

@Override

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

**switch** (v.getId()) {

**case** R.id.***btnStartService***:

startService(**new** Intent(**this**, BoundService.**class**));

**break**;

**case** R.id.***btnStopService***:

stopService(**new** Intent(**this**, BoundService.**class**));

**break**;

**case** R.id.***btnBindService***:

bindService(**new** Intent(**this**, BoundService.**class**),

**mServiceConnection**, Context.***BIND\_AUTO\_CREATE***);

**isServiceBound** = **true**;

**break**;

**case** R.id.***btnRequestService***:

**if**(**mBoundService**!=**null**)

**mBoundService**.service();

**break**;

**case** R.id.***btnUnbindService***:

**if**(**isServiceBound**){

**if**(**mServiceConnection** != **null**){

unbindService(**mServiceConnection**);

}

**isServiceBound** = **false**;

}

**else**{

Toast.*makeText*(**this**, **"Service is not bound."**, Toast.***LENGTH\_SHORT***).show();

}

**break**;

**default**:

**break**;

}

}

*// Code to manage Service lifecycle.*

**private** ServiceConnection **mServiceConnection** = **new** ServiceConnection() {

@Override

**public void** onServiceConnected(ComponentName comName, IBinder service) {

Log.*d*(**"BoundService"**,**"ServiceConnection - onService Connected"**);

BoundService.MyBinder myBinder = (BoundService.MyBinder) service;

**mBoundService** = myBinder.getService();

**isServiceBound** = **true**;

}

@Override

**public void** onServiceDisconnected(ComponentName comName) {

Log.*d*(**"BoundService"**,**"ServiceConnection - onService disConnected"**);

}

};

}

app→ right click → new → service → service

BoundService.java

**package** com.example.jevitha.a24\_1\_boundservice;

**import** android.app.Service;

**import** android.content.Intent;

**import** android.os.Binder;

**import** android.os.IBinder;

**import** android.os.SystemClock;

**import** android.util.Log;

**import** android.widget.Chronometer;

**import** android.widget.Toast;

**public class** BoundService **extends** Service {

**private** IBinder **mBinder** = **new** MyBinder();

@Override

**public void** onCreate() {

Toast.*makeText*(getApplicationContext(), **"I am in on create method."**, Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on Create"**);

**super**.onCreate();

}

@Override

**public int** onStartCommand(Intent intent, **int** flags, **int** startId) {

Toast.*makeText*(getApplicationContext(), **"I am in on start command method. "** , Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on Start Command"**);

**return super**.onStartCommand(intent, flags, startId);

}

*//This method returns an IBinder object that defines the programming*

*// interface that clients can use to interact with the service.*

@Override

**public** IBinder onBind(Intent intent) {

Toast.*makeText*(getApplicationContext(), **"I am in on bind method. "**, Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on Bind"**);

**return mBinder**;

}

@Override

**public boolean** onUnbind(Intent intent) {

Toast.*makeText*(getApplicationContext(), **"I am in on unbind method. "** , Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on unbind"**);

**return true**;

}

@Override

**public void** onRebind(Intent intent) {

Toast.*makeText*(getApplicationContext(), **"I am in on rebind method."**, Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on rebind"**);

**super**.onRebind(intent);

}

@Override

**public void** onDestroy() {

Toast.*makeText*(getApplicationContext(), **"I am in on destroy method."**, Toast.***LENGTH\_SHORT***).show();

Log.*d*(**"BoundService"**,**"on Destroy"**);

**super**.onDestroy();

}

**public void** service(){

Log.*d*(**"BoundService"**,**"servicing the request"**);

Toast.*makeText*(**this**,**"BoundSampleService"**,Toast.***LENGTH\_LONG***).show();

}

**public class** MyBinder **extends** Binder {

BoundService getService() {

Log.*d*(**"BoundService"**,**"Binder-getService"**);

**return** BoundService.**this**;

}

}

}

AndroidManifest.xml

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

<**manifest xmlns:android="http://schemas.android.com/apk/res/android"**

**package="com.example.jevitha.a24\_1\_boundservice"**>

<**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/AppTheme"**>

<**activity android:name=".MainActivity"**>

<**intent-filter**>

<**action android:name="android.intent.action.MAIN"** />

<**category android:name="android.intent.category.LAUNCHER"** />

</**intent-filter**>

</**activity**>

<**service**

**android:name=".BoundService"**

**android:enabled="true"**

**android:exported="true"** />

</**application**>

</**manifest**>