# Lab Exercise 14: Create Service

ActivityMain.java

package com.example.lab14;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
  
 public void startService(View view) {  
 Intent startIntent = new Intent(this, MyService.class);  
 startService(startIntent);  
 }  
  
 public void stopService(View view) {  
 Intent stopIntent = new Intent(this, MyService.class);  
 stopService(stopIntent);  
 }  
}

strings.xml

<resources>  
 <string name="app\_name">Lab14</string>  
 <string name="service">Service Demo</string>  
 <string name="stop\_service">Stop Service</string>  
 <string name="start\_service">Start Service</string>  
</resources>

AndroidManifest.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.lab14">  
  
 <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.Lab14">  
  
 <service  
 android:name=".MyService"  
 android:enabled="true"  
 android:exported="true"></service>  
  
 <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>

activity\_main.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:fontFamily="serif"  
 android:text="@string/service"  
 android:textSize="35sp"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.418" />  
  
 <Button  
 android:id="@+id/startSer"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="52dp"  
 android:text="@string/start\_service"  
 android:onClick="startService"  
 app:layout\_constraintEnd\_toEndOf="@+id/textView"  
 app:layout\_constraintHorizontal\_bias="0.494"  
 app:layout\_constraintStart\_toStartOf="@+id/textView"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView" />  
  
 <Button  
 android:id="@+id/stopSer"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/stop\_service"  
 android:onClick="stopService"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="@+id/startSer"  
 app:layout\_constraintHorizontal\_bias="0.555"  
 app:layout\_constraintStart\_toStartOf="@+id/startSer"  
 app:layout\_constraintTop\_toBottomOf="@+id/startSer"  
 app:layout\_constraintVertical\_bias="0.192" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

MyService.java

package com.example.lab14;  
  
import android.app.Service;  
import android.content.Intent;  
import android.os.IBinder;  
import android.util.Log;  
import android.widget.Toast;  
  
public class MyService extends Service {  
  
 public MyService() {  
 }  
  
 private static String *TAG* = "My Service";  
  
 @Override  
 public void onCreate() {  
 super.onCreate();  
 Toast.*makeText*(this, "Service Created", Toast.*LENGTH\_SHORT*).show();  
 Log.*i*(*TAG*, "Service is Created");  
 }  
  
 @Override  
 public int onStartCommand(Intent intent, int flags, int startId) {  
 Toast.*makeText*(this, "Service Started", Toast.*LENGTH\_SHORT*).show();  
 Log.*i*(*TAG*, "Service is Started");  
 return *START\_STICKY*;  
 }  
  
 @Override  
 public void onDestroy() {  
 super.onDestroy();  
 Toast.*makeText*(this, "Service Destroyed", Toast.*LENGTH\_SHORT*).show();  
 Log.*i*(*TAG*, "Service is Destroyed");  
 }  
  
 @Override  
 public IBinder onBind(Intent intent) {  
 return null;  
 }  
}

OUTPUT

Graphical user interface, diagram, application

Description automatically generated

Service Started:

|  |  |
| --- | --- |
|  |  |
|  |  |

Graphical user interface, text, application, email

Description automatically generated

Service Stopped:

Graphical user interface, diagram, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated