

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:supportRtl="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



Service Demo

START SERVICE

STOP SERVICE




Service Started:



Service Demo

START SERVICE

STOP SERVICE


 Service Created



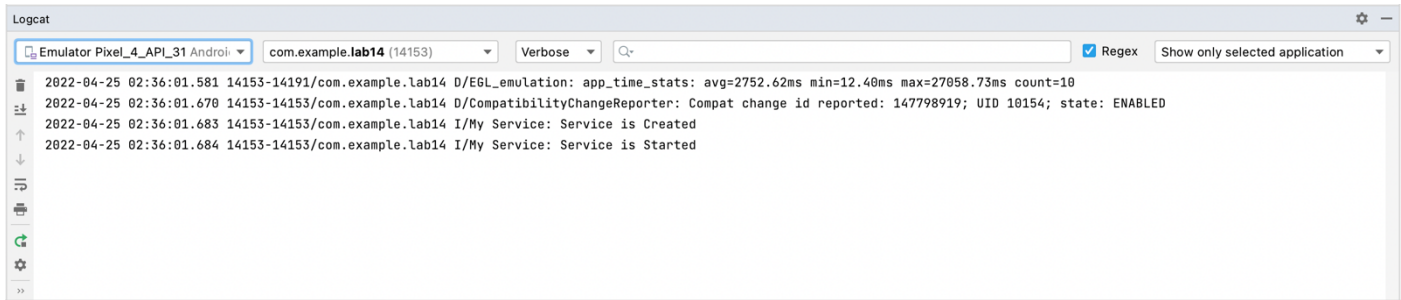
Service Demo

START SERVICE

STOP SERVICE

 Service Started





Service Stopped:



Service Demo

START SERVICE

STOP SERVICE

 Service Destroyed

