14. Create an application to create services.

```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">

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Start"
        app:layout_constraintBottom_toTopOf="@+id/progressBar"
        app:layout_constraintEnd_toStartOf="@+id/button2"
        app:layout_constraintHorizontal_bias="0.464"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.495" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Stop"
        app:layout_constraintBottom_toTopOf="@+id/progressBar"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.77"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.495" />

    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyleHorizontal"
        android:layout_width="322dp"
        android:layout_height="38dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.494"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.538" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="69dp"
        android:layout_height="40dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.476"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/progressBar"
        app:layout_constraintVertical_bias="0.189" />
```

```xml
    <ToggleButton
        android:id="@+id/toggleButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="ToggleButton"
        android:textOff="Pause"
        android:textOn="Resume"
        app:layout_constraintBottom_toTopOf="@+id/progressBar"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.504"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.806" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

// Java File

```java
package com.example.serives;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.os.AsyncTask;
import android.widget.ProgressBar;
import android.widget.TextView;
import android.widget.Toast;
import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity implements
View.OnClickListener
{
    Button b1,b2;
    TextView t1;
    ProgressBar p1;
    MyAsyncTask my,my1;
    int intvalue=0;
    ToggleButton toggleButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        b1 = findViewById(R.id.button);
        b2 = findViewById(R.id.button2);
        t1 = findViewById(R.id.textView);
        p1 = findViewById(R.id.progressBar);
        toggleButton = findViewById(R.id.toggleButton);

        b1.setOnClickListener(this);
        b2.setOnClickListener(this);
        toggleButton.setOnClickListener(this);
    }

    public void onClick(View v)
```

```java
    {
        switch(v.getId())
        {
            case R.id.button:
                my = new MyAsyncTask();
                my.execute(0);
              // toggleButton.setChecked(false);
                break;
            case R.id.button2:
                my.cancel(true);
                p1.setProgress(0);
                t1.setText("");
            ///    toggleButton.setChecked(false);
                break;
            case R.id.toggleButton:
                if(toggleButton.isChecked()){//pause
                    if(my!=null)
                        my.cancel(true);
                }else{//resume
                    my1 = new MyAsyncTask();
                    my = my1;
                    my1.execute(intvalue);
                }
                break;
        }
    }

    private class MyAsyncTask extends AsyncTask<Integer,Integer,Integer>
    {
        @Override
        protected Integer doInBackground(Integer... integers)
        {
            Integer temp = integers[0];
            try
            {
                while (temp < 100)
                {
                    Thread.sleep(300);
                    temp++;
                    publishProgress(temp);
                    intvalue=temp;
                    if (isCancelled())
                        break;
                }
            }
            catch (InterruptedException e)
            {
                e.printStackTrace();
            }
            return temp;
        }

        @Override
        protected void onProgressUpdate(Integer... values)
        {
            super.onProgressUpdate(values);
            t1.setText(values[0].toString());
            p1.setProgress(values[0]);

Toast.makeText(MainActivity.this,""+values[0].toString(),Toast.LENGTH_SHORT
).show();
```

```java
        }

        @Override
        protected void onPreExecute()
        {
            super.onPreExecute();
            Toast.makeText(MainActivity.this, "Initial Value 0",
Toast.LENGTH_LONG).show();
        }

        @Override
        protected void onPostExecute(Integer integer)
        {
            super.onPostExecute(integer);
            Toast.makeText(MainActivity.this, "Final Value " +
integer.toString(), Toast.LENGTH_LONG).show();
        }
    }
}
```

START   STOP

PAUSE

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