package com.example.sensorscombined;

import android.content.Context;

import android.hardware.\*;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity implements SensorEventListener {

TextView textViewLight, textViewAccel;

SensorManager sensorManager;

Sensor lightSensor, accelerometer;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textViewLight = findViewById(R.id.textViewLight);

textViewAccel = findViewById(R.id.textViewAccel);

sensorManager = (SensorManager) getSystemService(Context.SENSOR\_SERVICE);

if (sensorManager != null) {

lightSensor = sensorManager.getDefaultSensor(Sensor.TYPE\_LIGHT);

accelerometer = sensorManager.getDefaultSensor(Sensor.TYPE\_ACCELEROMETER);

if (lightSensor != null) {

sensorManager.registerListener(this, lightSensor, SensorManager.SENSOR\_DELAY\_NORMAL);

} else {

textViewLight.setText("Light Sensor not available");

}

if (accelerometer != null) {

sensorManager.registerListener(this, accelerometer, SensorManager.SENSOR\_DELAY\_NORMAL);

} else {

textViewAccel.setText("Accelerometer not available");

}

}

}

@Override

public void onSensorChanged(SensorEvent event) {

if (event.sensor.getType() == Sensor.TYPE\_LIGHT) {

float light = event.values[0];

textViewLight.setText("Light Level: " + light + " lx");

}

if (event.sensor.getType() == Sensor.TYPE\_ACCELEROMETER) {

float x = event.values[0];

float y = event.values[1];

float z = event.values[2];

textViewAccel.setText("Accelerometer:\nX: " + x + "\nY: " + y + "\nZ: " + z);

}

}

@Override

public void onAccuracyChanged(Sensor sensor, int accuracy) {

// not used

}

@Override

protected void onPause() {

super.onPause();

sensorManager.unregisterListener(this);

}

@Override

protected void onResume() {

super.onResume();

if (lightSensor != null)

sensorManager.registerListener(this, lightSensor, SensorManager.SENSOR\_DELAY\_NORMAL);

if (accelerometer != null)

sensorManager.registerListener(this, accelerometer, SensorManager.SENSOR\_DELAY\_NORMAL);

}

}

Activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <TextView  
 android:id="@+id/textViewLight"  
 android:text="Light Sensor: "  
 android:textSize="18sp"  
 android:layout\_marginBottom="30dp" />  
  
 <TextView  
 android:id="@+id/textViewAccel"  
 android:text="Accelerometer:\nX: \nY: \nZ: "  
 android:textSize="18sp"/>  
</LinearLayout>