**Assignment 1**

**Code:**

package com.example.group9assignment1;

import android.os.Bundle;

import android.os.Handler;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private TextView timerTextView;

private Button startButton, stopButton, resetButton;

private long startTime = 0;

private long elapsedTime = 0; // New variable to keep track of elapsed time

private Handler timerHandler = new Handler();

//Function to show timer running

private Runnable timerRunnable = new Runnable() {

@Override

public void run() {

long millis = System.currentTimeMillis() - startTime + elapsedTime; // Include elapsed time

int seconds = (int) (millis / 1000);

int minutes = seconds / 60;

int hours = minutes / 60;

seconds = seconds % 60;

minutes = minutes % 60;

timerTextView.setText(String.format("%02d:%02d:%02d", hours, minutes, seconds));

timerHandler.postDelayed(this, 500);

}

};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

//Getting values from the variables

timerTextView = findViewById(R.id.timerTextView);

startButton = findViewById(R.id.startButton);

stopButton = findViewById(R.id.stopButton);

resetButton = findViewById(R.id.resetButton);

//Start button function

startButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

startTime = System.currentTimeMillis();

timerHandler.postDelayed(timerRunnable, 0);

startButton.setEnabled(false); //start button disable

stopButton.setEnabled(true); //stop button enable

resetButton.setEnabled(true);

}

});

//Stop button function

stopButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

timerHandler.removeCallbacks(timerRunnable);

elapsedTime += System.currentTimeMillis() - startTime; // Store elapsed time

stopButton.setEnabled(false); //stop button disable

resetButton.setEnabled(true);

startButton.setEnabled(true); // start button enable

}

});

//Reset button function

resetButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

timerHandler.removeCallbacks(timerRunnable);

elapsedTime = 0; // Reset elapsed time

timerTextView.setText("00:00:00");

resetButton.setEnabled(false);

stopButton.setEnabled(true);//stop button disable

startButton.setEnabled(true); //start button enable

}

});

}

}

**Output:**

**A screenshot of a device

Description automatically generatedA screenshot of a device

Description automatically generatedA screenshot of a device

Description automatically generatedA screenshot of a device

Description automatically generated**