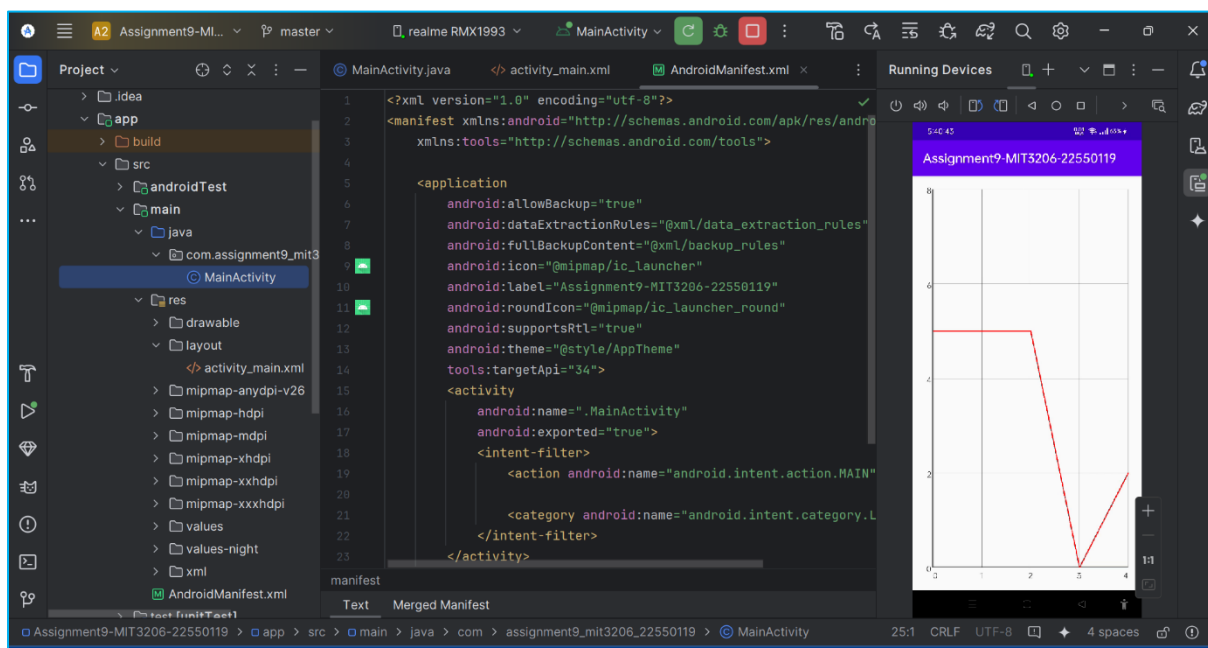


- ❖ Course Module : MIT3206 – Mobile Computing
- ❖ Course Lecturer : Senior Lecturer Gihan P. Seneviratne Sir

- ❖ Assignment 9 : Graph using Android 2D - Graphics
- ❖ Used Android Studio : Android Studio Koala | 2024.1.1
- ❖ GitHub Private Repository Link :

<https://github.com/NavinduMadusanka/Assignment9-MIT3206-22550119.git>

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Assignment9-MIT3206-22550119

Assignment 9 : Graph using Android 2D - Graphics

Below is a summary of what I have learned and focused on in this assignment.

1. Android Components

- **API level**

Android Version	API Level	Version Name
Android 7.0	24	Nougat

- **Dependency**

Dependency in the build.gradle (:app),
implementation 'com.jjoe64:graphview:4.2.2'
(implementation libs.graphview)

- **Permissions**

No special permissions have been granted for this project.

- **Newly learned key points in this assignment**

Import - import com.jjoe64.graphview.GraphView
import com.jjoe64.graphview.series.DataPoint
import com.jjoe64.graphview.series.LineGraphSeries

- Working with Library - GraphView is an Android framework that allows to construct versatile and attractive diagrams programmatically.
It is simple to grasp, integrate, and personalize.
- How to create graph in Android App.

- **tools:targetApi="34" in AndroidManifest.xml**

2. Functionality of the mobile application

Set the given data points to obtain graph using android 2D-graphics.

3. Layout

Linear Layout

4. Running the Application on my android mobile device

I was running the android app for testing in my android mobile device.

My android mobile device is Realme X2 RMX1993.

Below is a photo of my android mobile device (Realme X2 RMX1993) while the app was running.

My android mobile device display setting is set as dark mode option.

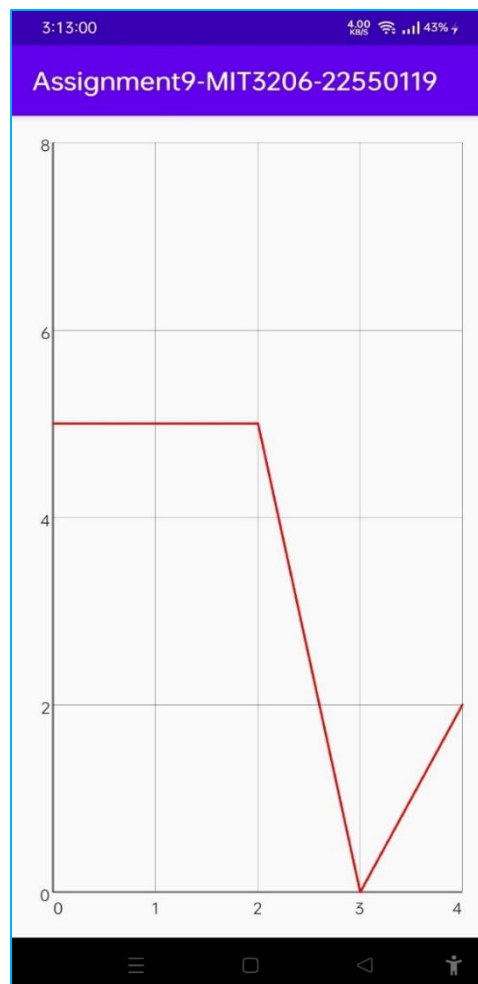


Photo : Assignment9-MIT3206-22550119 in
Realme X2 RMX1993

5. Main Coding files

- MainActivity.java

```
package com.assignment9_mit3206_22550119;

import android.graphics.Color;
import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

import com.jjoe64.graphview.GraphView;
import com.jjoe64.graphview.series.DataPoint;
import com.jjoe64.graphview.series.LineGraphSeries;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        GraphView graph = findViewById(R.id.graph);
        LineGraphSeries<DataPoint> series = new LineGraphSeries<>(new
DataPoint[] {
            new DataPoint(0, 5),
            new DataPoint(2, 5),
            new DataPoint(3, 0),
            new DataPoint(4, 2),
        });
        graph.addSeries(series);
        series.setColor(Color.RED);
    }
}
```

- activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:orientation="vertical"
    android:padding="16sp"
    tools:context=".MainActivity">
    <com.jjoe64.graphview.GraphView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:seriesColor="#ee0000"
        app:seriesType="line"
        android:id="@+id/graph" />
</LinearLayout>
```

- **build.gradle (:app)**

```
plugins {  
    id 'com.android.application' version '8.5.0'  
}  
  
android {  
    namespace 'com.assignment9_mit3206_22550119'  
    compileSdk 34  
  
    defaultConfig {  
        applicationId "com.assignment9_mit3206_22550119"  
        minSdk 24  
        targetSdk 34  
        versionCode 1  
        versionName "1.0"  
  
        testInstrumentationRunner  
"androidx.test.ext.junit.runners.AndroidJUnitRunner"  
    }  
  
    buildTypes {  
        release {  
            minifyEnabled false  
            proguardFiles getDefaultProguardFile('proguard-android-  
optimize.txt'), 'proguard-rules.pro'  
        }  
    }  
  
    compileOptions {  
        sourceCompatibility JavaVersion.VERSION_1_8  
        targetCompatibility JavaVersion.VERSION_1_8  
    }  
}  
  
dependencies {  
  
    implementation 'androidx.appcompat:appcompat:1.7.0'  
    implementation 'com.google.android.material:material:1.12.0'  
    implementation 'androidx.activity:activity:1.9.0'  
    implementation 'androidx.constraintlayout:constraintlayout:2.1.4'  
    testImplementation 'junit:junit:4.13.2'  
    androidTestImplementation 'androidx.test.ext:junit:1.1.5'  
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.5.1'  
    implementation 'com.jjoe64:graphview:4.2.2'  
}
```