

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

❖ Assignment 1 : Display Name, Index Number, Email Address in Android App

❖ GitHub Private Repository Link :

<https://github.com/NavinduMadusanka/Assignment1-MIT3206-22550119.git>

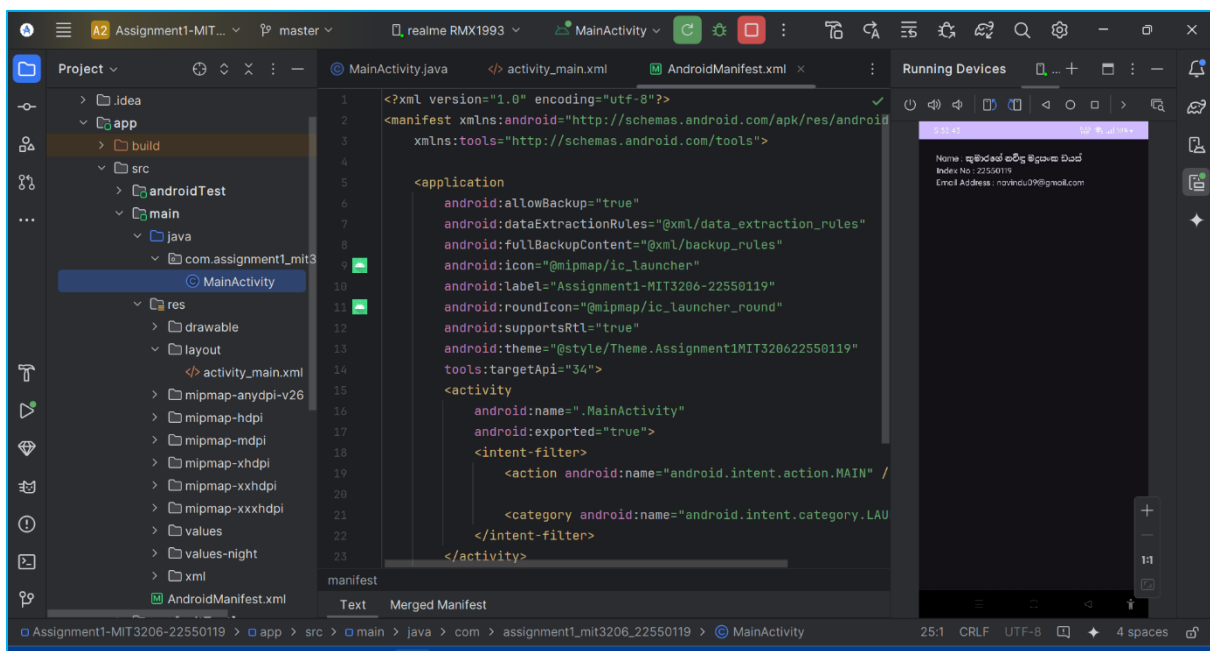
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Assignment1-MIT3206-22550119

Assignment 1 : Display Name, Index Number, Email Address in Android App

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

- **Classes**

The AppCompatActivity class is used in this assignment.

This is a compatibility library that back ports some features of recent versions of Android to older devices.

- **Methods**

The onCreate() method is used in this assignment.

It is functioned when an activity is loaded.

- **Permissions**

No special permissions have been granted for this project.

2. Outline of approach to develop the application

- **Design Issues**

At first it was difficult to enter the Sinhala text.

- **Tips**

I have included the Sinhala Unicode software (Sinhala / Tamil Kit provided by ICTA) to make it easier to enter Sinhala text.

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

- **Warnings**

The following warnings appeared.

- Hardcoded string "Name : කුමාරගේ නවීන් මදුසංක ඩයස්", should use @string resource
- Hardcoded string "Index No : 22550119", should use @string resource
- Hardcoded string "Email Address : navindu09@gmail.com", should use @string resource

These are few warnings. But the function is working as properly.

3. Layout & Attributes

- **ConstraintLayout**

ConstraintLayout is a layout on Android that gives adaptable and flexible ways to create views for apps.

ConstraintLayout, which is now the default layout in Android Studio, gives you many ways to place objects.

We can constrain them to their container, to each other.

- **Layout Attributes**

There are few common attributes among all the layouts and there are other attributes which are specific to that layout.

Following are common attributes and applied to the layout.

No	Attribute	Attribute & Description
1	android:layout_width="match_parent"	This is used to define width or height of a view in devices full screen horizontally or vertically.
2	android:layout_height="match_parent"	

3	<code><TextView</code>	<p>TextView is used to set and display the text.</p> <p>It can be change on our requirements. The TextView control like as a label control.</p> <p>Users can't to edit the text with TextView control.</p>
4	<code>android:id="@+id/textView"</code>	This is the ID in textview which uniquely identifies the view.
5	<code>android:layout_width="wrap_content"</code>	That's mean the view to size itself to the size required by its content both of width & height.
6	<code>android:layout_height="wrap_content"</code>	
7	<code>android:text="Index No : 22550119"</code>	That means it is a hard code value stored in the textview.
8	<code>app:layout_constraintBottom_toBottomOf="parent"</code>	Align the bottom of the desired view to the bottom of another.
9	<code>app:layout_constraintTop_toTopOf="parent"</code>	Align the left of the desired view to the top of another.

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 Screenshot of my android mobile device (Realme X2 RMX1993) while the app was running.

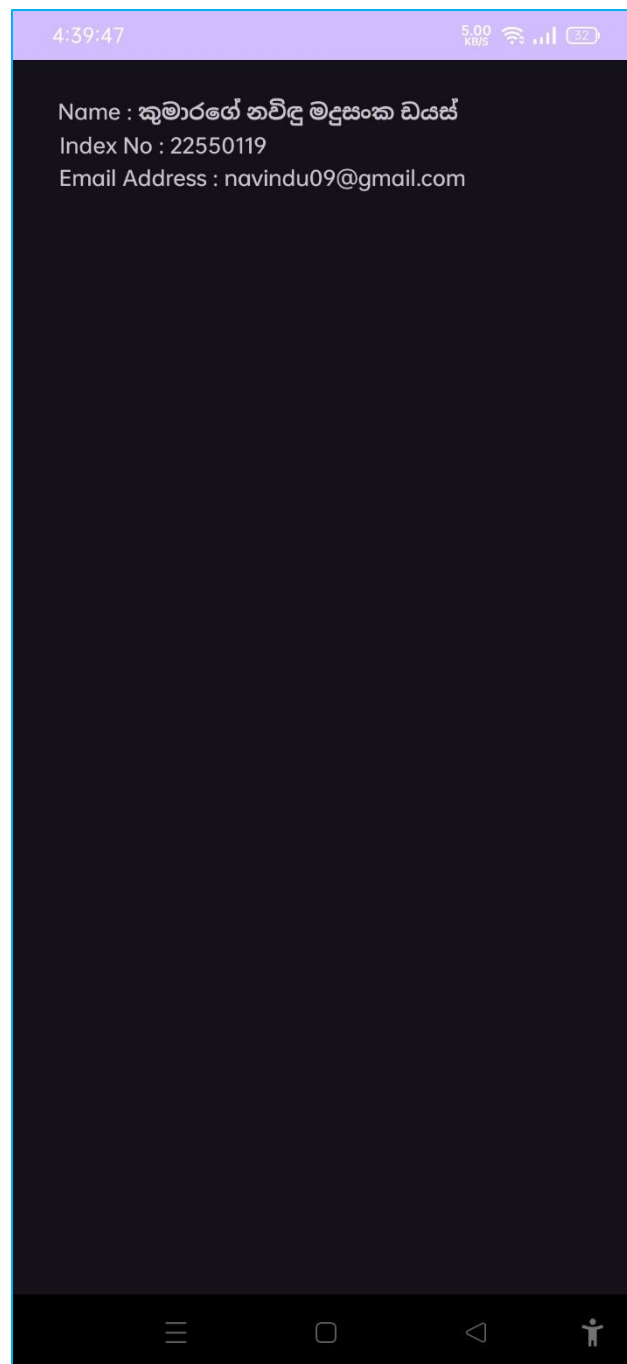


Photo : Assignment1-MIT3206-22550119 in Realme X2 RMX1993

5. Main Coding files

- **MainActivity.java**

```
package com.assignment1_mit3206_22550119;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

- **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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity"
    tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="5dp">

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name : කුමාරගේ නවීන් මුසංක ඩයස්"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.201"
        android:textStyle="bold"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.03" />
```

```
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Index No : 22550119"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.113"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.058" />
```

```
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textStyle="bold"
    android:text="Email Address : navindu09@gmail.com"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.212"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.085" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **AndroidManifest.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="Assignment1-MIT3206-22550119"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Assignment1MIT320622550119"
        tools:targetApi="34">
        <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>
```