Lab Report 1: My ID Card

Course Title: Mobile Application Development

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Code:

//activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res</pre>
   /android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    android:background="@android:color/white">
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:gravity="center"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true">
        <ImageView</pre>
            android:id="@+id/university_logo"
            android:layout_width="80dp"
            android:layout_height="80dp"
            android:src="@drawable/ju_logo"
            android:contentDescription="JahangirnagaruUniversityu
               Logo"
            android:scaleType="centerCrop"
            android:background="@drawable/image_background"/>
        <TextView
            android:id="@+id/university_name"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Jahangirnagar_University"
            android:textSize="20sp"
            android:textStyle="bold"
            android:textColor="@android:color/black"
            android:layout_gravity="center"
            android:layout_marginLeft="8dp"/>
    </LinearLayout>
    <ImageView</pre>
        android:id="@+id/student_photo"
        android:layout_width="120dp"
        android:layout_height="120dp"
        android:layout_below="@+id/university_logo"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="120dp"
        android:background="@drawable/image_background"
        android:contentDescription="Student_Photo"
```

```
android:scaleType="centerCrop"
    android:src="@drawable/rubayed_image" />
<TextView
    android:id="@+id/name"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/student_photo"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    android:text="Rubayed_All_Isalm"
    android:textColor="@android:color/black"
    android:textSize="18sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/roll_number"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/name"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="12dp"
    android:text="Student_Roll_Number:_370"
    android:textColor="@android:color/black"
    android:textSize="16sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/batch"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/roll_number"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="12dp"
    android:text="Batch: 49"
    android:textColor="@android:color/black"
    android:textSize="16sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/department"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/batch"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="12dp"
    android:text="Department: Computer Science & amp; L
       Engineering"
    android:textColor="@android:color/black"
    android:textSize="16sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/blood_group"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```
android:layout_below="@id/department"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="12dp"
        android:text="Blood_Group:_O_(+ve)"
        android:textColor="@android:color/black"
        android:textSize="16sp"
        android:textStyle="bold" />
    <TextView
        android:id="@+id/validity_date"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/blood_group"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="12dp"
        android:text="Validity: 27 June 2026"
        android:textColor="@android:color/black"
        android:textSize="16sp"
        android:textStyle="bold" />
    <ImageView</pre>
        android:id="@+id/signature"
        android: layout_width="160dp"
        android:layout_height="80dp"
        android:layout_below="@id/validity_date"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="16dp"
        android:src="@drawable/rubayed_signature"
        android:contentDescription="Signature"
        android:scaleType="fitCenter"
        android:background="@drawable/image_background"/>
    <TextView
        android:id="@+id/signature_caption"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/signature"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="8dp"
        android:text="Signature"
        android:textColor="@android:color/black"
        android:textSize="14sp" />
</RelativeLayout>
```

Listing 1: activity_main.xml

//MainActivity.java

```
package com.example.myapplication;

import android.graphics.Color;
import android.os.Bundle;
import android.text.Spannable;
import android.text.SpannableString;
```

```
import android.text.style.ForegroundColorSpan;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView nameTextView = findViewById(R.id.name);
        TextView rollNumberTextView = findViewById(R.id.roll_number);
        TextView batchTextView = findViewById(R.id.batch);
        TextView departmentTextView = findViewById(R.id.department);
        TextView bloodGroupTextView = findViewById(R.id.blood_group);
        // Set text for each TextView
        nameTextView.setText("Rubayed All Islam");
        rollNumberTextView.setText("Roll Number: 370");
        batchTextView.setText("Batch: 49");
        departmentTextView.setText("Computer Science & Engineering");
        bloodGroupTextView.setText("Blood Group: 0 (+ve)");
        // Apply blue color to all text in each TextView using
   SpannableString
        applyBlueColor(nameTextView);
        applyBlueColor(rollNumberTextView);
        applyBlueColor(batchTextView);
        applyBlueColor(departmentTextView);
        applyBlueColor(bloodGroupTextView);
    }
    private void applyBlueColor(TextView textView) {
        SpannableString spannableString = new SpannableString(textView.
   getText().toString());
        spannableString.setSpan(new ForegroundColorSpan(Color.BLUE), 0,
    spannableString.length(), Spannable.SPAN_EXCLUSIVE_EXCLUSIVE);
        textView.setText(spannableString);
}
```

Listing 2: MainActivity.java

Output:

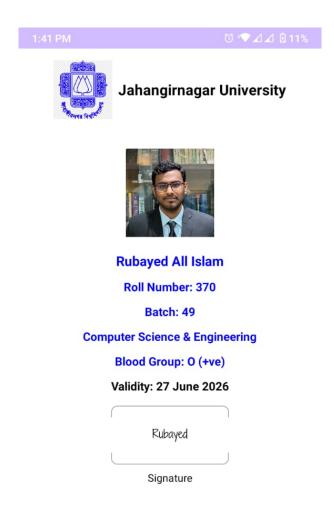




Figure 1: Screenshot from my Symphony Z30