Ex. No.   :   01   **Date: 28.01.2025**

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GUI Components

Aim

Develop an application to change the font and color of the text and display toast message when the user presses the button.

Procedure:

Step 1: File -> New Project

Provide the application name and Click "Next"

Step 2: Select the target android devices

Select the minimum SDK to run the application. Click "Next".

Step 3: Choose the activity for the application (By default choose "Blank Activity).

Click "Next".

Step 4: Enter activity name and click "Finish".

Step 5: Edit the program.

Step 6: Run the application, 2-ways to run the application.

1. Running through emulator

2. Running through mobile device

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AndroidManifest.xml

```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_rule
        s" android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Ex1"
        tools:targetApi="31">
        <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>
```

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://sche mas.android.com/apk/res/android"
    android:layout_width="match parent"

    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="16dp">


    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height=wrap_content"
        android:text="Hello, World!"
        android:textSize="24sp"
        android:textColor="#000000"/>

    <Button
        android:id="@+id/buttonChangeFont"

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Change Font"
        android:layout_marginTop="24dp"/>

    <Button
        android:id="@+id/buttonChangeColor"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Change Color"

        android:layout_marginTop="16dp"/>

</LinearLayout>
```

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MainActivity.kt

```kotlin
package com.example.exp1

import android.graphics.Color
import android.graphics.Typeface
import android.os.Bundle
import android.widget.Button
import android.widget.TextView
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {
        override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val myText = findViewById(R.id.myText)
        val changeFontButton = findViewById(R.id.changeFontButton)
        val changeColorButton = findViewById(R.id.changeColorButton)

        changeFontButton.setOnClickListener {
                myText.setTypeface(null, Typeface.BOLD_ITALIC)
                Toast.makeText(this, "Font Changed!", Toast.LENGTH_SHORT).show()
        }

        changeColorButton.setOnClickListener {
                myText.setTextColor(Color.parseColor("#FF4081"))
                Toast.makeText(this, "Color Changed!", Toast.LENGTH_SHORT).show()
        }
        }
    }
    }
```
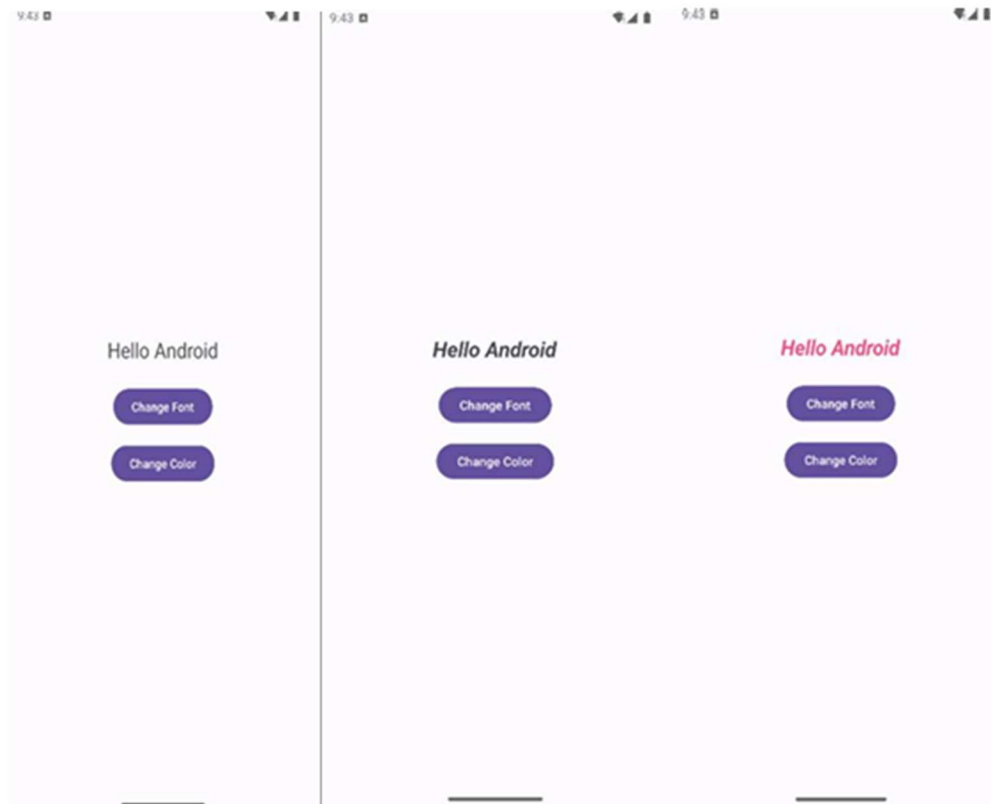
Output

Result : Experiment has been successfully executed.