

DATE:

**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:**

- Open Android Studio and import the package
- In activity\_main.xml drag and drop the buttons
- The button need to perform actions to change the colour, font size and background colour
- Click android virtual device that should control the toolbar
- Design the graphical layout with the textview and buttons
- Run the application
- The version of android and name is displayed
- The theme of the file is also mentioned in a file
- Run the file using the version which is displayed to the users.

**PROGRAM CODE:****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="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Demo"
        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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/rootView"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Rajalakshmi Engineering College"
        android:textAlignment="center"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" app:layout_constraintVertical_bias="0.068"/>

    <Button
        android:id="@+id/fontsize"
        android:text="Change font size"
        android:layout_width="485dp"
        android:layout_height="47dp"
        app:layout_constraintTop_toBottomOf="@id/text"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" android:layout_marginTop="32dp"
        app:layout_constraintHorizontal_bias="0.513"/>

    <Button
        android:id="@+id/fontcolor"
        android:text="Change font color"
        android:layout_width="444dp"
        android:layout_height="47dp"
        app:layout_constraintTop_toBottomOf="@id/text"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" android:layout_marginTop="188dp"/>

    <Button
        android:id="@+id/bgcolor"
        android:text="Change background color"
        android:layout_width="446dp"
        android:layout_height="47dp"
        app:layout_constraintTop_toBottomOf="@id/text"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent" android:layout_marginTop="112dp"
        app:layout_constraintHorizontal_bias="0.497"/>

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

## MainActivity.kt

```
package com.example.demo

import android.graphics.Color
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.TextView
import com.example.demo.R.*

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(layout.activity_main)
        val rootView= findViewById<androidx.constraintlayout.widget.ConstraintLayout>(id.rootView)
        val textView: TextView = findViewById(id.text)
        val increaseButton: Button = findViewById(id.fontsize)
        val changetextcolor:Button=findViewById(id.fontcolor)
        val changebgcolor:Button=findViewById(id.bgcolor)

        increaseButton.setOnClickListener {
            // Increase font size by a certain factor
            val currentSize = textView.textSize
            val newSize = currentSize + 5 // You can adjust this value
            textView.textSize = newSize
        }
        changetextcolor.setOnClickListener{
            textView.setTextColor(Color.GREEN)
        }
        changebgcolor.setOnClickListener {
            rootView.setBackgroundColor(Color.BLUE)
        }
    }
}
```

## OUTPUT:



## RESULT: