EX NO:1 REGISTER NO:210701509

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"</pre>
     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:supportsRtl="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"
```

app:layout constraintEnd toEndOf="parent" android:layout marginTop="112dp"

</androidx.constraintlayout.widget.ConstraintLayout>

app:layout_constraintTop_toBottomOf="@id/text"
app:layout_constraintStart_toStartOf="parent"

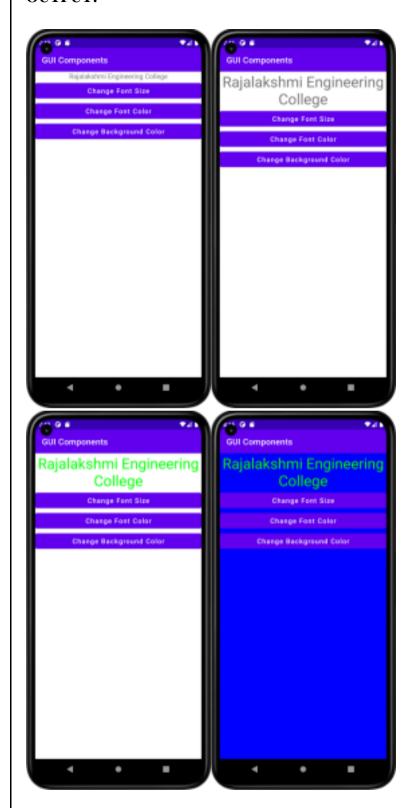
app:layout_constraintHorizontal_bias="0.497"/>

android:layout_height="47dp"

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: