

EXERCISE 1 – ANDROID APPLICATION THAT USES GUI COMPONENTS, FONT AND COLORS

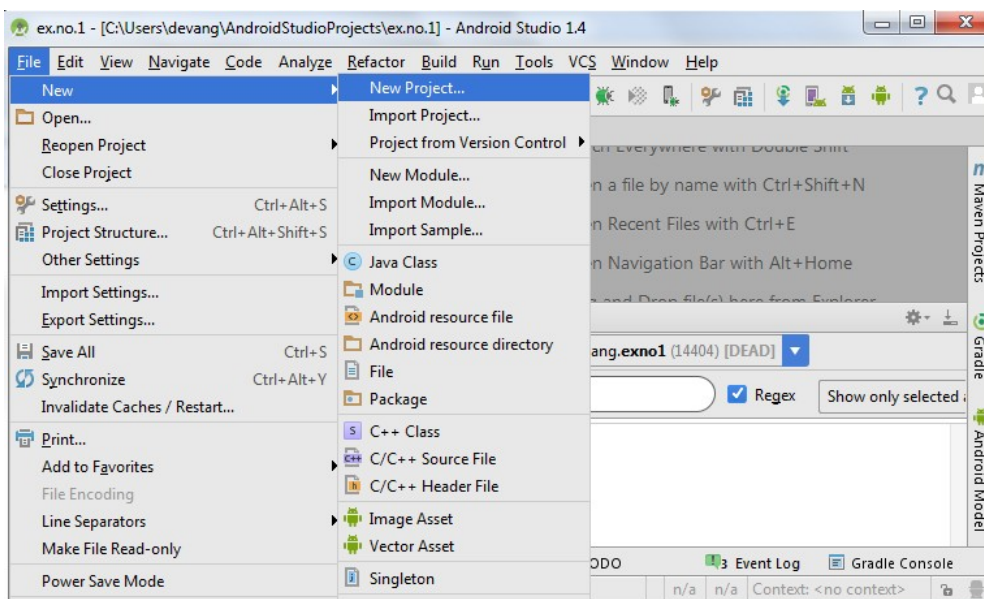
Aim:

To develop a Simple Android Application that uses GUI components, Font and Colors.

Procedure:

Creating a New project:

- Open Android Studio and then click on **File -> New -> New project**.



- Then type the Application name as “**ex.no.1**” and click **Next**.

Create New Project

New Project

Android Studio

Configure your new project

Application name:

Company Domain:

Package name: [Edit](#)

Project location:

The application name for most apps begins with an uppercase letter

[Previous](#) [Next](#) [Cancel](#) [Finish](#)

- Then select the **Minimum SDK** as shown below and click **Next**.

Create New Project

Target Android Devices

Select the form factors your app will run on

Different platforms may require separate SDKs

☒ Phone and Tablet
Minimum SDK:

☐ Wear
Minimum SDK:

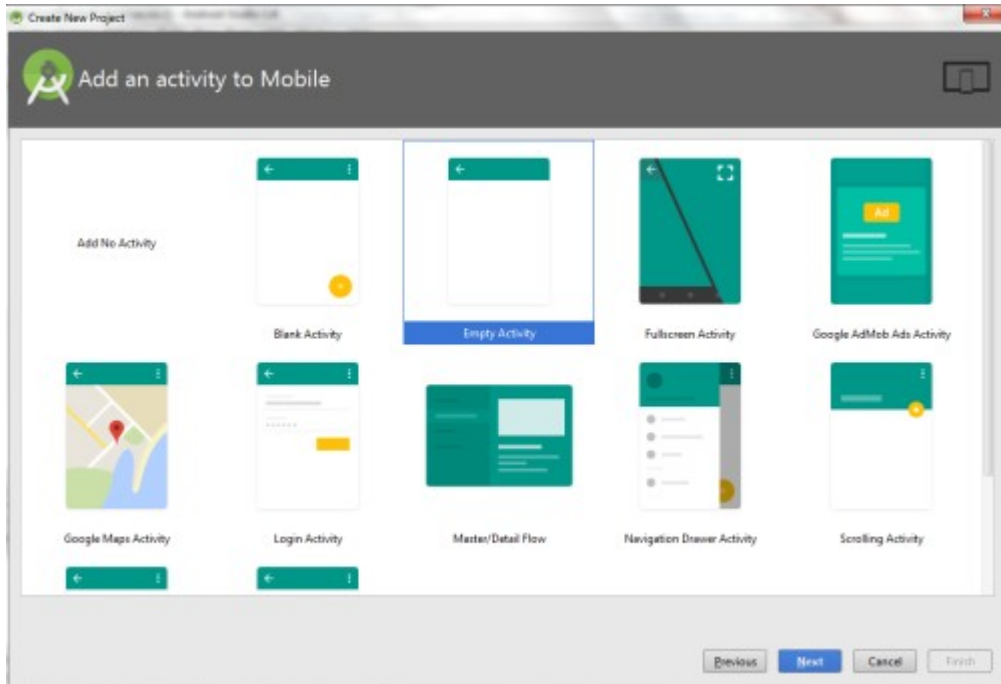
☐ TV
Minimum SDK:

☐ Android Auto
Minimum SDK:

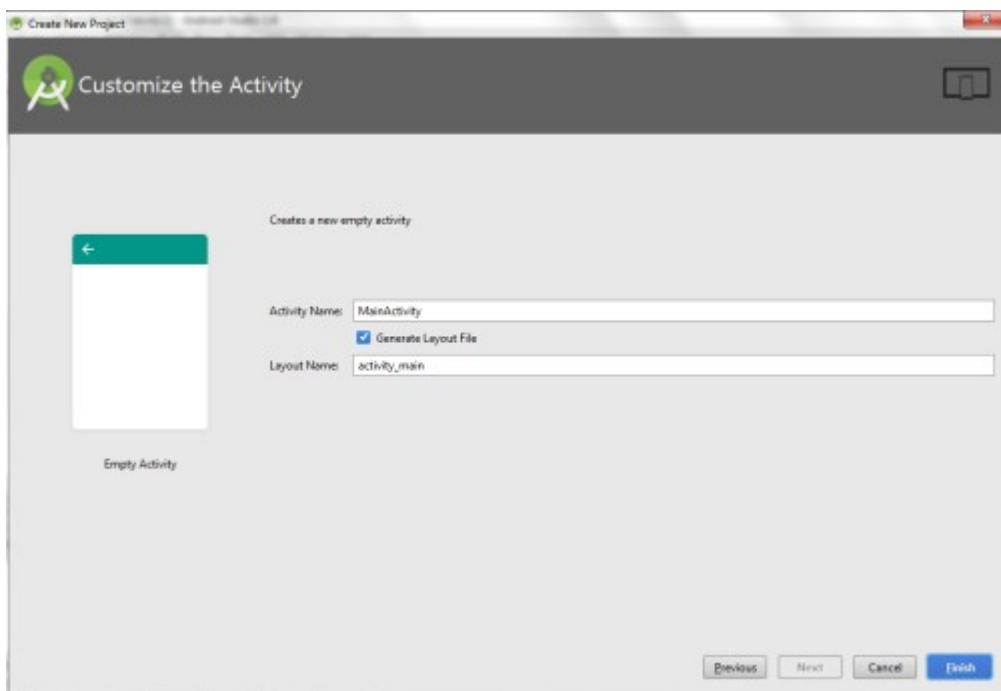
Lower API levels target more devices, but have fewer features available. By targeting API 15 and later, your app will run on approximately 94.0% of the devices that are active on the Google Play Store. [Help me choose](#)

[Previous](#) [Next](#) [Cancel](#) [Finish](#)

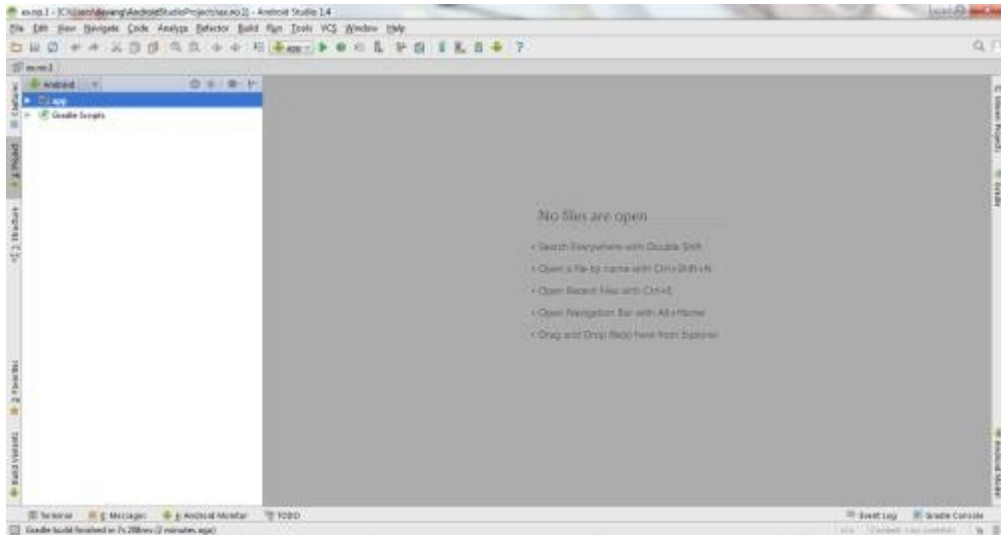
- Then select the **Empty Activity** and click **Next**.



- Finally click **Finish**.

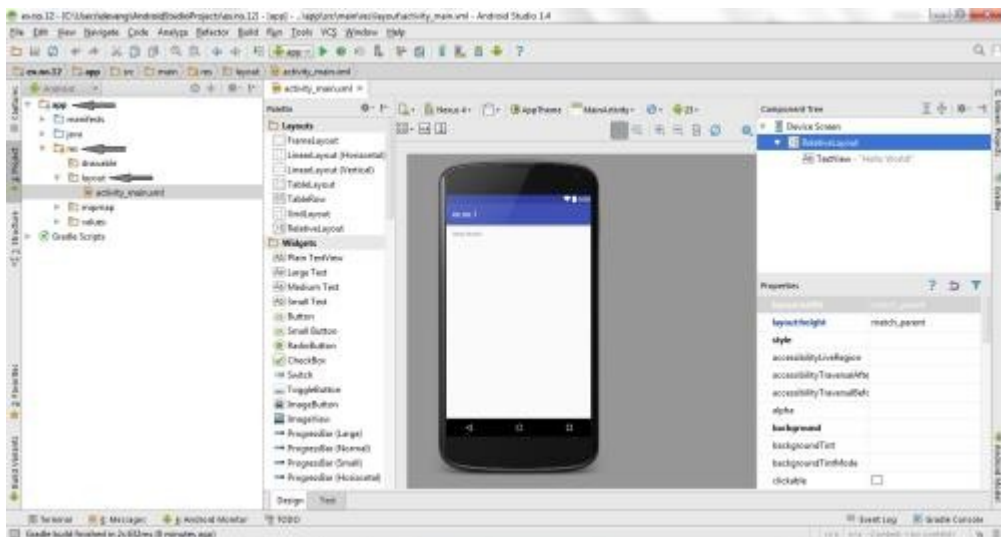


- It will take some time to build and load the project.
- After completion it will look as given below.

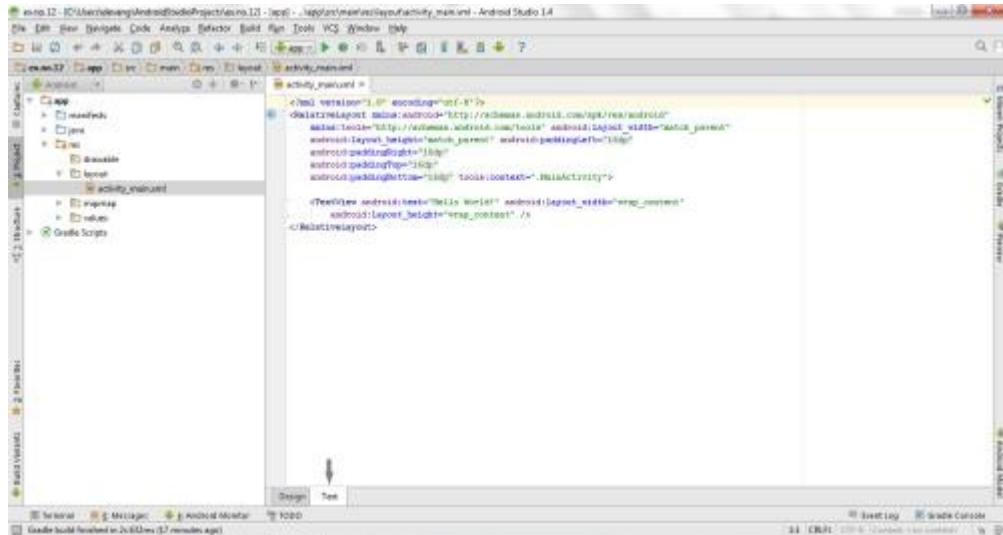


Designing layout for the Android Application:

- Click on **app** -> **res** -> **layout** -> **activity_main.xml**.



- Now click on **Text** as shown below.



- Then delete the code which is there and type the code as given below.

Code for Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

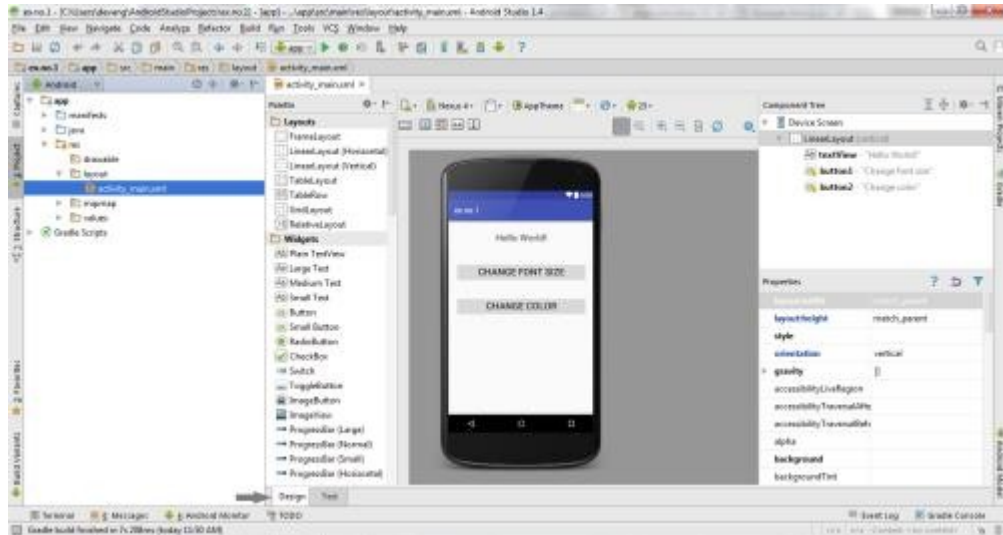
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="30dp"
        android:gravity="center"
        android:text="Hello World!"
        android:textSize="25sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/button1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:gravity="center"
        android:text="Change font size"
        android:textSize="25sp" />

    <Button
        android:id="@+id/button2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:gravity="center"
        android:text="Change color"
        android:textSize="25sp" />

</LinearLayout>
```

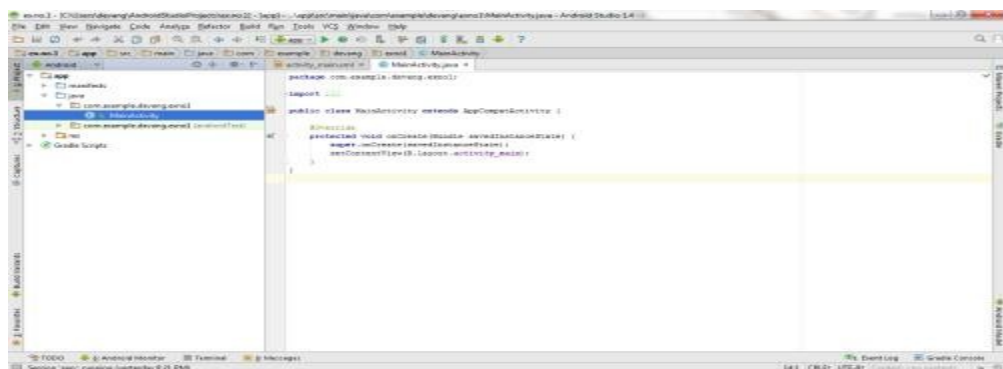
- Now click on Design and your application will look as given below.



- So now the designing part is completed.

Java Coding for the Android Application:

- Click on **app** -> **java** -> **com.example.exno1** -> **MainActivity**.



- Then delete the code which is there and type the code as given below.

Code for MainActivity.java:

```
package com.example.exno1;

import

android.graphics.Color;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import
android.widget.TextView;

public class MainActivity extends AppCompatActivity
{
    int ch=1;
    float font=30;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
```

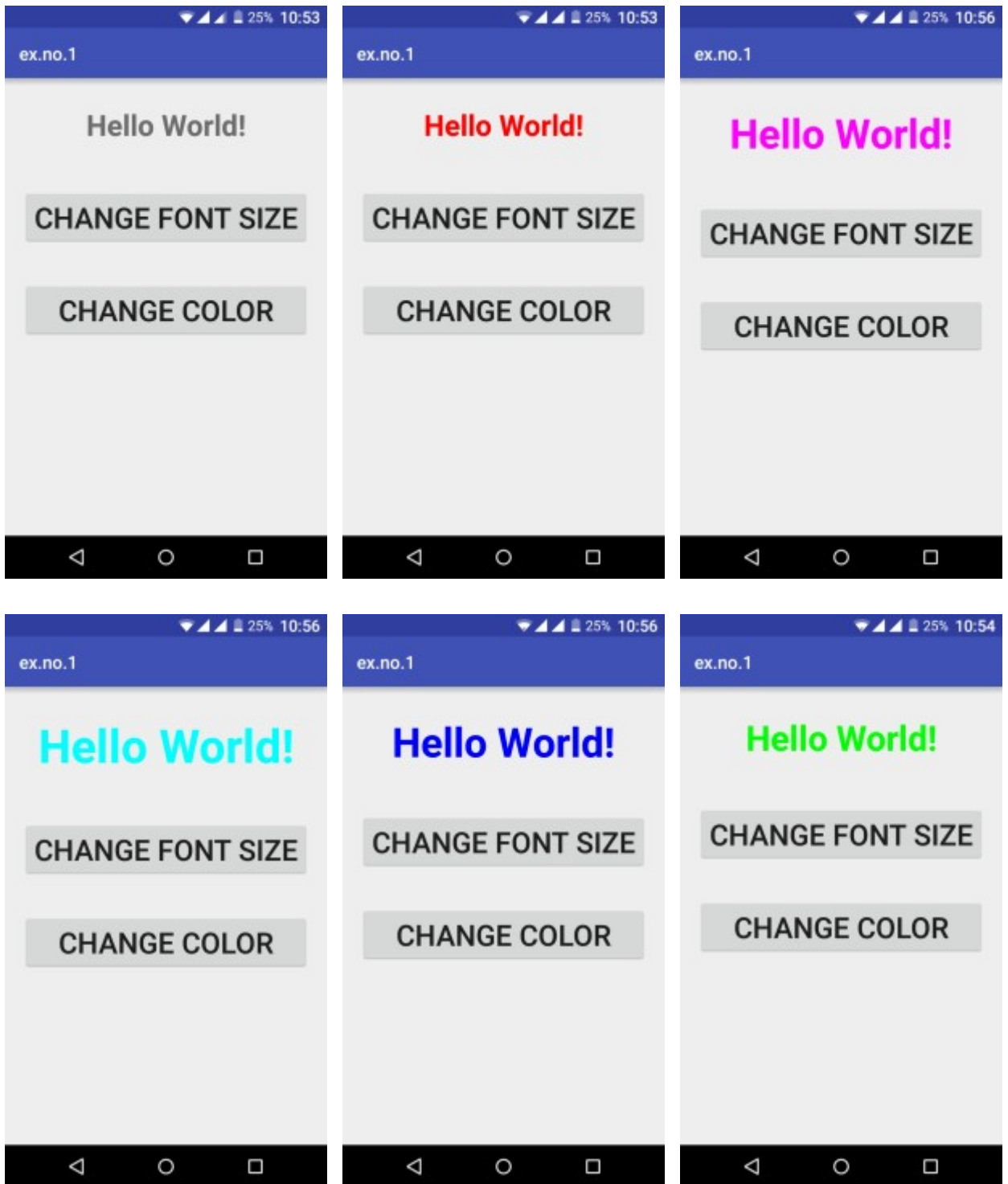
```

setContentView(R.layout.activity_main);
final TextView t= (TextView) findViewById(R.id.textView);
Button b1= (Button) findViewById(R.id.button1);
b1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)
    {t.setTextSize(font);
      font = font + 5;
      if (font == 50)
        font = 30;
    }
});
Button b2= (Button) findViewById(R.id.button2);
b2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)
    {switch (ch) {
      case 1:
        t.setTextColor(Color.RED);
        break;
      case 2:
        t.setTextColor(Color.GREEN);
        break;
      case 3:
        t.setTextColor(Color.BLUE);
        break;
      case 4:
        t.setTextColor(Color.CYAN);
        break;
      case 5:
        t.setTextColor(Color.YELLOW);
        break;
      case 6:
        t.setTextColor(Color.MAGENTA);
        break;
    }
    ch++;
    if (ch == 7)
      ch = 1;
    }
});
}
}

```

- So now the Coding part is also completed.
- Now run the application to see the output.

Output:



Result:

Thus a Simple Android Application that uses GUI components, Font and Colors is developed and executed successfully.

EXERCISE 1.1:

Execute the above exercise of font size and color in Android studio and show the exact GUI output? [2]

TASK 1.1

In the above example, Change the font styles of the text “Hello World!” by adding another button?





RESOURCES:

<https://www.codingconnect.net/mobile-application-development-lab/> <https://www.javatpoint.com/android-tutorial>
<https://www.tutorialspoint.com/android>
<https://developer.android.com/guide>
<https://developer.android.com/training/basics/firstapp/creating-project>
[https://www.raywenderlich.com/120177/beginning-Android-development-tutorial- installingAndroid-studio](https://www.raywenderlich.com/120177/beginning-Android-development-tutorial-installing-Android-studio)
https://www.youtube.com/playlist?list=PLS1QulWo1RIbb1cYyzZpLFCKvdYV_yJ-EH<https://www.udemy.com/java-tutorial/>
<https://www.w3schools.com/xml/>
<http://www.Androidguys.com/>