

## 01 - GUI Components

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### Aim

Develop an application that uses GUI components, Font and Colours.

### Objective

In this exercise we will learn about different GUI in Android Studio and develop an app that use GUI, Font and Colors.

### Procedure

Start a project “GUI Components”.

UI design for android application is done using a layout xml file.

Android studio offers a layout editor which allows you to drag and drop UI elements into the interface.

Drag a LinearLayout (Vertical) to the screen.

Place one text view and three button on the layout.

Change the TextView’s text as “Rajalakshmi”.

Change the id’s for the 3 buttons as btnFontSize, btnFontColor, btnBgColor respectively.

Open the MainActivity.java file.

Changing attributes (text color, background, typeface etc.) in java.

Create object for the components.

```
TextView textView;  
Button btnFontSize, btnFontColor, btnBgColor;
```

Declare variables for font color, background color and font size.

```
int fc = 1, bc = 1;  
float fontsize = 5;
```

Create object for the layout.

```
RelativeLayout relativeLayout;
```

Inside the onCreate() method type the following:

```
textView = (TextView) findViewById(R.id.textView);
btnFontSize = (Button) findViewById(R.id.btnFontSize);
btnFontColor = (Button) findViewById(R.id.btnFontColor);
btnBgColor = (Button) findViewById(R.id.btnBgColor);
relativeLayout = (RelativeLayout) findViewById(R.id.activity_main);
```

Implement the btnFontSize.

```
btnFontSize.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        textView.setTextSize(fontsize);
        fontsize = (fontsize + 5) % 50;
    }
});
```

Implement the btnFontColor.

```
btnFontColor.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        switch (fc % 3) {
            case 0:
                textView.setTextColor(Color.RED);
                break;
            case 1:
                textView.setTextColor(Color.GREEN);
                break;
            case 2:
                textView.setTextColor(Color.BLUE);
                break;
        }
        fc++;
    }
});
```

Implement the btnBgColor.

```
btnBgColor.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        switch (bc % 3) {
            case 0:
                relativeLayout.setBackgroundColor(Color.RED);
                break;
            case 1:
                relativeLayout.setBackgroundColor(Color.GREEN);
                break;
        }
    }
});
```

```
        case 2:
            RelativeLayout.setBackgroundColor(Color.BLUE);
            break;
        }
        bc++;
    }
});
```

## Output

