

**Aim: To design Flutter UI by including common widgets.**

**Theory:** Widgets are the building blocks of a Flutter application. In Flutter, everything is a widget, from simple elements like text and images to complex structures like entire layouts and navigations. Flutter provides a rich set of predefined widgets to create various UI components, which can be combined to build a complex UI.

**Common Flutter Widgets:**

**1. Text Widget:**

- Used to display text on the screen. You can customize its style, size, color, and alignment.

**2. Container Widget:**

- A box that can contain other widgets. It is used for styling, adding padding, margin, alignment, and background color to widgets.

**3. Row and Column Widgets:**

- Row: Arranges widgets horizontally.
- Column: Arranges widgets vertically.
- These widgets are fundamental for creating flexible layouts and positioning UI elements.

**4. Image Widget:**

- Used to display images in the app, either from assets, network, or file system.

**5. Button Widgets:**

- Flutter offers several button widgets like **RaisedButton**, **FlatButton**, **ElevatedButton**, and **IconButton** that are used for interaction. These buttons are essential for handling user input and triggering actions.

**6. TextField Widget:**

- Used for user input. It provides an editable field where the user can type text.

**7. Scaffold Widget:**

- This is a top-level container that holds the structure of the UI. It includes the app bar, body, drawer, and bottom navigation bar. It provides a standard layout for the app.

#### **8. ListView Widget:**

- A scrolling widget that allows the display of a long list of items. It is used for displaying dynamic content efficiently.

#### **Layouts in Flutter:**

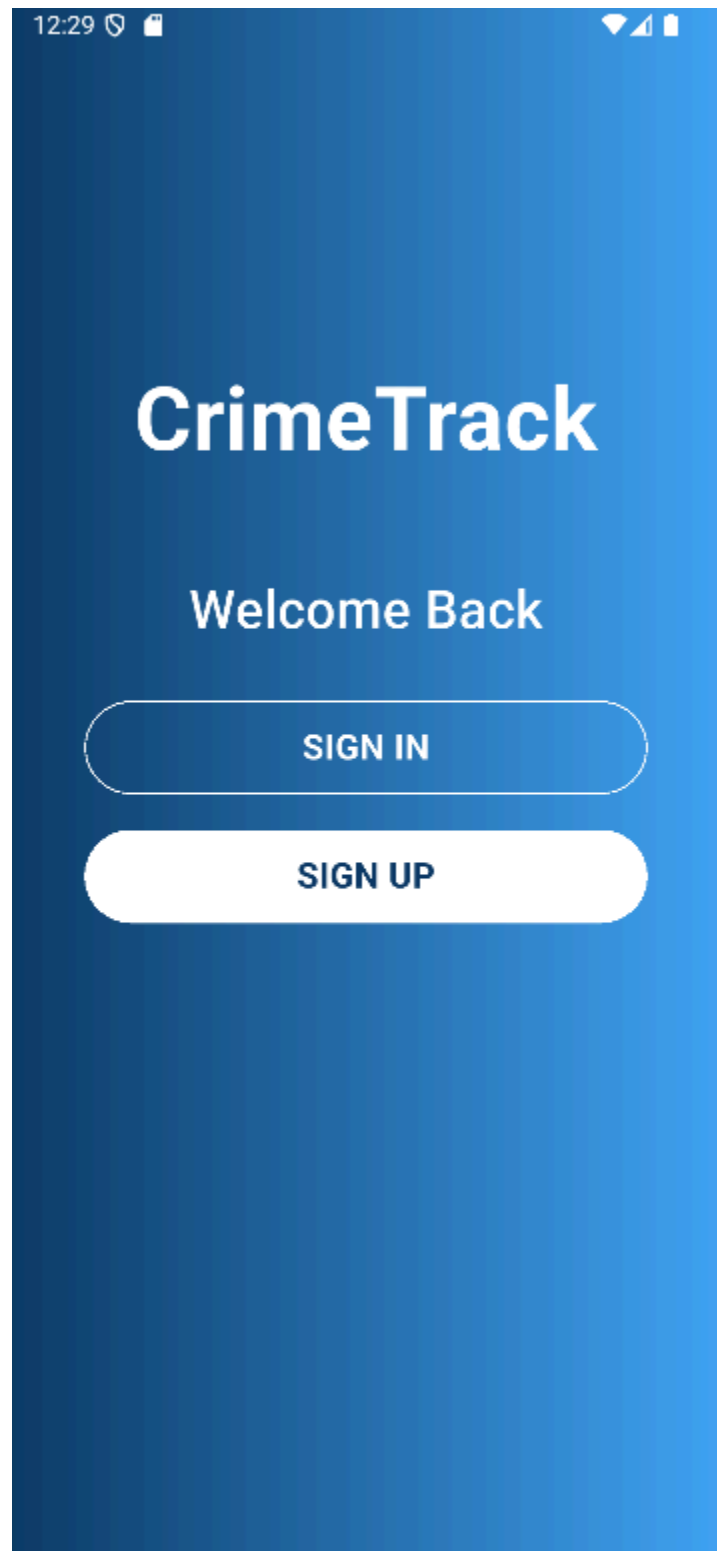
- **Padding:** Adds space around a widget.
- **Align:** Aligns a widget within its parent.
- **Expanded:** Makes a widget expand to fill available space in a **Row**, **Column**, or **Flex**.
- **Stack:** Used for placing widgets on top of one another.

**Conclusion:** We learned how to design a basic Flutter UI by utilizing common widgets such as Text, Container, Row, Column, Image, Button, TextField, ListView, and Scaffold. These widgets provide a flexible and powerful way to create UIs that are visually appealing and functional. By combining these widgets, you can build complex layouts that cater to your app's design needs.

- Text and Container are fundamental for displaying text and styling.
- Row and Column are essential for structuring layouts, either horizontally or vertically.
- Buttons allow users to interact with the app.
- Scaffold provides a basic structure for the app, including app bars, bodies, and drawers.
- ListView is ideal for displaying lists of items, especially when the content is dynamic or long.

**Mastering these common widgets enables developers to design clean and efficient UIs that cater to the needs of modern mobile applications.**

Output:





Hello  
Sign in!

Gmail



Password



[Forgot Password?](#)

SIGN IN

Don't have an account?

[Sign up](#)

# Create Your Account

Full Name

Email

Password



Confirm Password



SIGN UP

