

TASK 3

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```
import 'package:flutter/material.dart';

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Widget Demo',
      home: Scaffold(
        appBar: AppBar(title: Text('Widget Demo')),
        body: DemoPage(),
      ),
    );
  }
}

class DemoPage extends StatefulWidget {
  @override
```

```
_DemoPageState createState() => _DemoPageState();  
}  
  
class _DemoPageState extends State<DemoPage> {  
  bool _isVisible = true;  
  double _opacityValue = 1.0;  
  
  void _toggleVisibility() {  
    setState(() {  
      _isVisible = !_isVisible;  
    });  
  }  
  
  void _updateOpacity(double value) {  
    setState(() {  
      _opacityValue = value;  
    });  
  }  
  
  @override  
  Widget build(BuildContext context) {  
    return SingleChildScrollView(  
      padding: EdgeInsets.all(16.0),  
      child: Column(  
        crossAxisAlignment: CrossAxisAlignment.start,  
        children: <Widget>[
```

```
// Section for Positioned Widget

Padding(
  padding: const EdgeInsets.only(bottom: 16.0),
  child: Text(
    'Positioned Widget',
    style: Theme.of(context).textTheme.headline6,
  ),
),
Container(
  color: Colors.grey[200],
  height: 200,
  child: Stack(
    children: <Widget>[
      Positioned(
        left: 20,
        top: 40,
        child: Container(
          color: Colors.blue,
          width: 100,
          height: 50,
          child: Center(child: Text('Positioned', style: TextStyle(color: Colors.white))),
        ),
      ),
    ],
  ),
),
```

```
Divider(),  
  
// Section for Aligned Widget  
Padding(  
padding: const EdgeInsets.only(bottom: 16.0, top: 16.0),  
child: Text(  
'Aligned Widget',  
style: Theme.of(context).textTheme.headline6,  
),  
,  
Container(  
color: Colors.grey[200],  
height: 100,  
child: Align(  
alignment: Alignment.bottomRight,  
child: Container(  
color: Colors.green,  
width: 100,  
height: 50,  
child: Center(child: Text('Aligned', style: TextStyle(color: Colors.white))),  
),  
,  
,  
Divider(),  
  
// Section for Spacer Widget
```

```
Padding(  
  padding: const EdgeInsets.only(bottom: 16.0, top: 16.0),  
  child: Text(  
    'Spacer Widget',  
    style: Theme.of(context).textTheme.headline6,  
  ),  
,  
Row(  
  children: <Widget>[  
    Container(color: Colors.red, width: 50, height: 50, child: Center(child: Text('Box 1', style:  
      TextStyle(color: Colors.white)))),  
    Spacer(),  
    Container(color: Colors.orange, width: 50, height: 50, child: Center(child: Text('Box 2',  
      style: TextStyle(color: Colors.white)))),  
  ],  
,  
  Divider(),  
  
// Section for Visibility Widget  
Padding(  
  padding: const EdgeInsets.only(bottom: 16.0, top: 16.0),  
  child: Text(  
    'Visibility Widget',  
    style: Theme.of(context).textTheme.headline6,  
  ),  
,  
Visibility(  
  
```

```
visible: _isVisible,  
child: Container(  
    color: Colors.purple,  
    width: 100,  
    height: 50,  
    child: Center(child: Text('Visible Widget', style: TextStyle(color: Colors.white))),  
,  
,  
SizedBox(height: 8),  
ElevatedButton(  
    onPressed: _toggleVisibility,  
    child: Text(_isVisible ? 'Hide Widget' : 'Show Widget'),  
,  
Divider(),  
  
// Section for Opacity Widget  
Padding(  
    padding: const EdgeInsets.only(bottom: 16.0, top: 16.0),  
    child: Text(  
        'Opacity Widget',  
        style: Theme.of(context).textTheme.headline6,  
,  
,  
Opacity(  
    opacity: _opacityValue,  
    child: Container(  
        color: Colors.purple,  
        width: 100,  
        height: 50,  
        child: Center(child: Text('Visible Widget', style: TextStyle(color: Colors.white))),  
,  
    ),  
);
```

```
        color: Colors.blueAccent,  
        width: 100,  
        height: 50,  
        child: Center(child: Text('Opacity Widget', style: TextStyle(color: Colors.white))),  
      ),  
    ),  
    SizedBox(height: 8),  
    Text('Opacity: ${_opacityValue.toStringAsFixed(1)}'),  
    Slider(  
      min: 0.0,  
      max: 1.0,  
      value: _opacityValue,  
      onChanged: _updateOpacity,  
    ),  
  ],  
),  
);  
}  
}  


---


```