import 'package:flutter/material.dart';  
  
void main() {  
 runApp(MyApp());  
}  
  
//đánh stl  
//root widget  
class MyApp extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 title: "My App", //  
 home: HomePage(),  
 );  
 }  
}  
  
class HomePage extends StatelessWidget {  
 const HomePage({Key? key}) : super(key: key);  
  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Column(//Alt+Enter để chọn Widget muốn wrap  
 mainAxisAlignment: MainAxisAlignment.center,  
 crossAxisAlignment: CrossAxisAlignment.stretch,  
 // crossAxisAlignment: CrossAxisAlignment.end,  
 //chỉ 1 con  
 children: [  
 Expanded(//expanded chi dung khi thang cha xac dinh kinh thuoc  
 flex: 2,  
 child: Container(  
 color: Colors.*blue*,  
 child: Text("View1"),  
 )  
 ),  
 //nhiều con  
 Expanded(//expanded chi dung khi thang cha xac dinh kinh thuoc  
 flex: 4,  
 child: Container(  
 color: Colors.*grey*,  
 child: Text("View2"),  
 )  
 ),  
 Expanded(//expanded chi dung khi thang cha xac dinh kinh thuoc  
 flex: 2,  
 child: Container(  
 color: Colors.*amber*,  
 child: Text("View2"),  
 )  
 ),  
 ],  
 // child: Text(  
 // "View1",  
 // style: TextStyle(  
 // color: Colors.red,  
 // fontSize: MediaQuery.of(context).size.width / 10),  
 ),  
 ),  
 );  
 }  
}

Bài tập 1:

import 'package:flutter/material.dart';  
  
void main() {  
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}  
  
//đánh stl  
//root widget  
class MyApp extends StatelessWidget {  
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 );  
 }  
}  
  
class HomePage extends StatelessWidget {  
 const HomePage({Key? key}) : super(key: key);  
  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.stretch,  
 children: [  
 Expanded(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.stretch,  
 children: [  
 Expanded(  
 child: Container(  
 color: Colors.*red*,  
 child: Center(child: Text("A")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*green*,  
 child: Center(child: Text("B")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*blueGrey*,  
 child: Center(child: Text("C")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*blue*,  
 child: Center(child: Text("D")),  
 )  
 )  
 ],  
 )  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*grey*,  
 child: Row(  
 crossAxisAlignment: CrossAxisAlignment.stretch,  
 children: [  
 Expanded(  
 child: Container(  
 color: Colors.*red*,  
 child: Center(child: Text("A")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*green*,  
 child: Center(child: Text("B")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*blueGrey*,  
 child: Center(child: Text("C")),  
 )  
 ),  
 Expanded(  
 child: Container(  
 color: Colors.*blue*,  
 child: Center(child: Text("D")),  
 )  
 )  
 ],  
 )  
 )  
 ),  
 ],  
 ),  
 ),  
 ),  
 );  
 }  
}

Stack + Align

import 'package:flutter/material.dart';  
  
void main() {  
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}  
  
//đánh stl  
//root widget  
class MyApp extends StatelessWidget {  
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 Widget build(BuildContext context) {  
 return MaterialApp(  
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 home: HomePage(),  
 );  
 }  
}  
  
class HomePage extends StatelessWidget {  
 const HomePage({Key? key}) : super(key: key);  
  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Center(  
 child: Stack(  
 children: [  
 Align(  
 alignment: Alignment(-1,-1),  
 child: Container(  
 width: MediaQuery.*of*(context).size.width / 8,  
 height: MediaQuery.*of*(context).size.width / 8,  
 color: Colors.*red*,  
 child: Text("${MediaQuery.*of*(context).size.width /8}"),  
 ),  
 ),  
 Align(  
 alignment: Alignment(-0.71,-0.9),  
 child: Container(  
 width: MediaQuery.*of*(context).size.width / 8,  
 height: MediaQuery.*of*(context).size.width / 8,  
 color: Colors.*blue*,  
 ),  
 ),  
 ],  
 ),  
 )  
 ),  
 ),  
 );  
 }  
}

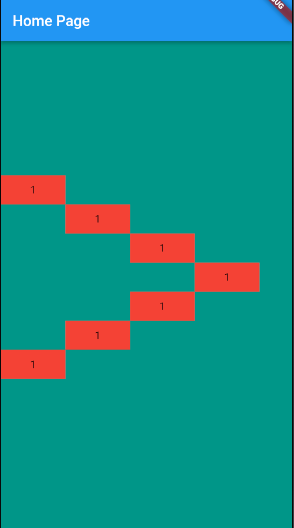
//458 pixel-20 phần

//51pixel - x phần

//-1+x/10

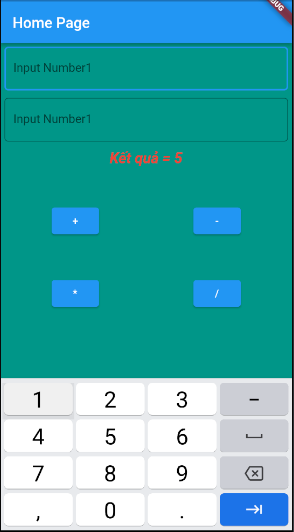
Stack + position

import 'package:flutter/material.dart';  
  
void main() {  
 runApp(MyApp());  
}  
  
//đánh stl  
//root widget  
class MyApp extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 title: "My App", //  
 home: HomePage(),  
 );  
 }  
}  
  
class HomePage extends StatelessWidget {  
  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Center(  
 child: Stack(  
 children: [  
 Positioned(  
 top: 0,  
 left: 0,  
 child: Container(  
 width: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 height: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 color: Colors.*red*,  
 child: Text("${MediaQuery.*of*(context).size.width /8}"),  
 ),),  
 Positioned(  
 top: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 left: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 child: Container(  
 width: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 height: (MediaQuery.*of*(context).size.width ~/ 8).toDouble(),  
 color: Colors.*blue*,  
 ),  
 ),  
 ],  
 ),  
 )  
 ),  
 ),  
 );  
 }  
}



class HomePage extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Column(  
 mainAxisAlignment: MainAxisAlignment.center,  
 crossAxisAlignment: CrossAxisAlignment.center,  
 children: [  
 Container(  
 height: MediaQuery.*of*(context).size.height / 2.5,  
 width: double.*infinity*,  
 child: Stack(  
 children: [  
 Positioned(  
 top: 0,  
 left: 0,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top: MediaQuery.*of*(context).size.width / 10,  
 left: MediaQuery.*of*(context).size.width / 4.5,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top: (MediaQuery.*of*(context).size.width / 10 \* 2),  
 left: (MediaQuery.*of*(context).size.width / 4.5) \* 2,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top: (MediaQuery.*of*(context).size.width / 10 \* 3),  
 left: (MediaQuery.*of*(context).size.width / 4.5) \* 3,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top: (MediaQuery.*of*(context).size.width / 10 \* 4),  
 left: (MediaQuery.*of*(context).size.width / 4.5) \* 2,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top:(MediaQuery.*of*(context).size.width / 10 \* 5),  
 left: MediaQuery.*of*(context).size.width / 4.5,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 Positioned(  
 top: (MediaQuery.*of*(context).size.width / 10 \* 6),  
 left: 0,  
 child: Container(  
 alignment: Alignment.*center*,  
 color: Colors.*red*,  
 width: MediaQuery.*of*(context).size.width / 4.5,  
 height: MediaQuery.*of*(context).size.width / 10,  
 child: Text("1"),  
 )),  
 ],  
 ),  
 )  
 ],  
 ),  
 )),  
 );  
 }  
}

Calculator 01



import 'package:flutter/material.dart';  
  
void main() {  
 runApp(MyApp());  
}  
  
class MyApp extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 title: "My App",  
 home: HomePage(),  
 );  
 }  
}  
  
class HomePage extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 padding: EdgeInsets.all(5),  
 constraints: BoxConstraints.expand(),  
 color: Colors.*teal*,  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.stretch,  
 children: [  
 TextField(  
 textInputAction: TextInputAction.next,  
 // obscureText: false,//ẩn hiện password  
 keyboardType: TextInputType.*number*,//1 số kiểu chỉ trên Android hoặc IOS  
 decoration: InputDecoration(  
 hintText: "Input Number1",  
 // prefixIcon: Icon(Icons.email, color: Colors.red,),  
 // disabledBorder: InputBorder.none,  
 border: OutlineInputBorder(  
 borderRadius: BorderRadius.all(Radius.circular(5))  
 )  
 ),  
 ),  
 SizedBox(height: 10,),//thường dùng để cách các View  
 TextField(  
 textInputAction: TextInputAction.next,  
 // obscureText: false,//ẩn hiện password  
 keyboardType: TextInputType.*number*,//1 số kiểu chỉ trên Android hoặc IOS  
 decoration: InputDecoration(  
 hintText: "Input Number1",  
 // prefixIcon: Icon(Icons.email, color: Colors.red,),  
 // disabledBorder: InputBorder.none,  
 border: OutlineInputBorder(  
 borderRadius: BorderRadius.all(Radius.circular(5))  
 )  
 ),  
 ),  
 SizedBox(height: 10),  
 Center(  
 child:Text(  
 "Kết quả = 5",  
 style: TextStyle(  
 color: Colors.*red*,  
 fontSize: 20,  
 fontWeight: FontWeight.*bold*,  
 fontStyle: FontStyle.italic  
  
 ),  
 )  
 ),  
 SizedBox(height: 50),  
 Row(  
 children: [  
 Expanded(  
 child: Center(  
 child: ElevatedButton(onPressed: (){}, child: Text("+")),  
 ),  
 ),  
 Expanded(  
 child: Center(  
 child: ElevatedButton(onPressed: (){}, child: Text("-")),  
 ),  
 )  
 ],  
 ),  
 SizedBox(height: 50),  
 Row(  
 children: [  
 Expanded(  
 child: Center(  
 child: ElevatedButton(onPressed: (){}, child: Text("\*")),  
 ),  
 ),  
 Expanded(  
 child: Center(  
 child: ElevatedButton(onPressed: (){}, child: Text("/")),  
 ),  
 )  
 ],  
 )  
 ],  
 ),  
 )),  
 );  
 }  
}

class HomePage extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 title: Text("Home Page"),  
 ),  
 body: SafeArea(  
 child: Container(  
 constraints: BoxConstraints.expand(),  
 color: Colors.*grey*[200],  
 alignment: Alignment.*center*,  
 child: Column(  
 children: [  
 Container(  
 color: Colors.*red*,  
 child: Text(  
 "Top Content",  
 style: TextStyle(fontSize: 25, color: Colors.*white*),  
 )),  
 Expanded(  
 child: Stack(  
 children: [  
 Align(  
 alignment: Alignment(-0.5,0),  
 child: Container(  
 color: Colors.*lightGreen*,  
 child: Text(  
 "Firsttttttttttt",  
 style: TextStyle(fontSize: 25, color: Colors.*white*),  
 )),  
 ),  
 Align(  
 alignment: Alignment.*center*,  
 child: Container(  
 color: Colors.*blue*,  
 child: Text(  
 "Second",  
 style: TextStyle(fontSize: 25, color: Colors.*white*),  
 )),  
 ),  
 Align(  
 alignment: Alignment(0.5,0),  
 child: Container(  
 color: Colors.*orange*,  
 child: Text(  
 "Third",  
 style: TextStyle(fontSize: 25, color: Colors.*white*),  
 )),  
 ),  
 ],  
 ),  
 ),  
 Container(  
 color: Colors.*grey*,  
 child: Text("Bottom Content",  
 style: TextStyle(fontSize: 25, color: Colors.*white*))),  
 ],  
 ),  
 )),  
 );  
 }  
}