import 'package:flutter/material.dart';

void main() => runApp(CalculatorApp());

class CalculatorApp extends StatelessWidget {

@override

Widget build(BuildContext context) => MaterialApp(

debugShowCheckedModeBanner: false,

home: CalculatorScreen(),

);

}

class CalculatorScreen extends StatefulWidget {

@override

\_CalculatorScreenState createState() => \_CalculatorScreenState();

}

class \_CalculatorScreenState extends State<CalculatorScreen> {

String input = '';

String result = '0';

void onButtonPressed(String value) {

setState(() {

if (value == 'AC') {

input = '';

result = '0';

} else if (value == '=') {

result = calculate(input);

} else {

input += value;

}

});

}

String calculate(String expr) {

try {

if (expr.contains('+')) {

var parts = expr.split('+');

double a = double.parse(parts[0]);

double b = double.parse(parts[1]);

return (a + b).toString();

} else if (expr.contains('-')) {

var parts = expr.split('-');

double a = double.parse(parts[0]);

double b = double.parse(parts[1]);

return (a - b).toString();

} else if (expr.contains('\*')) {

var parts = expr.split('\*');

double a = double.parse(parts[0]);

double b = double.parse(parts[1]);

return (a \* b).toString();

} else if (expr.contains('/')) {

var parts = expr.split('/');

double a = double.parse(parts[0]);

double b = double.parse(parts[1]);

if (b == 0) return 'Error';

return (a / b).toString();

} else {

return expr;

}

} catch (e) {

return 'Error';

}

}

Color getButtonColor(String label) {

if (label == 'AC') return Colors.red;

if (label == '=') return Colors.green;

if (['/', '\*', '-', '+'].contains(label)) return Colors.orange;

return Colors.blue; // numbers and default buttons

}

Widget buildButton(String label) => Expanded(

child: Padding(

padding: const EdgeInsets.all(2),

child: ElevatedButton(

onPressed: () => onButtonPressed(label),

style: ElevatedButton.styleFrom(

backgroundColor: getButtonColor(label),

),

child: Text(label, style: TextStyle(fontSize: 24)),

),

),

);

@override

Widget build(BuildContext context) => Scaffold(

appBar: AppBar(title: Text('Simple Calculator')),

body: Column(

children: [

Expanded(

child: Container(

padding: EdgeInsets.all(24),

alignment: Alignment.bottomRight,

child: Column(

mainAxisAlignment: MainAxisAlignment.end,

crossAxisAlignment: CrossAxisAlignment.end,

children: [

Text(input, style: TextStyle(fontSize: 32, color: Colors.grey)),

SizedBox(height: 10),

Text(result, style: TextStyle(fontSize: 48, fontWeight: FontWeight.bold)),

],

),

),

),

Row(children: ['7', '8', '9', '/'].map(buildButton).toList()),

Row(children: ['4', '5', '6', '\*'].map(buildButton).toList()),

Row(children: ['1', '2', '3', '-'].map(buildButton).toList()),

Row(children: ['AC', '0', '=', '+'].map(buildButton).toList()),

],

),

);

}