**//1)** **find hotels**

import 'package:flutter/material.dart';  
  
void main() {  
 runApp(const MyApp());  
}  
  
class MyApp extends StatelessWidget {  
 const MyApp({super.key});  
  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 title: 'Assignment 1',  
 home: Counter(),  
 );  
 }  
}  
  
class Counter extends StatefulWidget {  
 Counter({super.key});  
  
 @override  
 State<Counter> createState() => \_CounterState();  
}  
  
class \_CounterState extends State<Counter> {  
 int \_n = 1;  
 int \_m = 0;  
  
 void add() {  
 setState(() {  
 \_n++;  
 });  
 }  
  
 void subtract() {  
 if (\_n <= 1) {  
 } else {  
 setState(() {  
 \_n--;  
 });  
 }  
 }  
  
 void addm() {  
 setState(() {  
 \_m++;  
 });  
 }  
  
 void subtractm() {  
 if (\_m <= 0) {  
 } else {  
 setState(() {  
 \_m--;  
 });  
 }  
 }  
  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 body: Center(  
 child: Container(  
 padding: EdgeInsets.all(20.0),  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.center,  
 children: [  
 SizedBox(height: 150.0),  
  
 Align(  
 alignment: Alignment.*centerLeft*,  
 child: Container(  
 child: Text(  
 'Check In/ Check Out',  
 style: TextStyle(  
 fontSize: 13.0, // Adjust the font size as needed  
 ),  
 ),  
 ),  
 ),  
 Container(  
 width: double.*infinity*,  
 padding: EdgeInsets.all(15.0),  
 decoration: BoxDecoration(  
 color: Colors.*white*,  
 border: Border.all(  
 color: Colors.*black*,  
 ),  
 ),  
 child: Center(  
 child: Text(  
 'Tonight',  
 style: TextStyle(  
 fontSize: 20,  
 color: Colors.*black*,  
 fontWeight: FontWeight.*bold*,  
 ),  
 ),  
 ),  
 ),  
  
 SizedBox(height: 10.0),  
  
 Center(  
 child: Row(  
 mainAxisAlignment: MainAxisAlignment.center,  
 children: [  
 Container(  
 decoration: BoxDecoration(  
 border: Border.all(  
 color: Colors.*black*, // Border color  
 width: 1.0, // Border width  
 ),  
 ),  
 child: Row(  
 children: [  
 Container(  
 width: 40,  
 child: TextButton(  
 onPressed: subtract,  
 child: Icon(  
 Icons.*remove*,  
 color: Colors.*black*,  
 ),  
 ),  
 ),  
 Text(  
 ' $\_n adult',  
 style: TextStyle(fontSize: 20),  
 ),  
 Container(  
 width: 40,  
 child: TextButton(  
 onPressed: add,  
 child: Icon(  
 Icons.*add*,  
 color: Colors.*black*,  
 ),  
 ),  
 ),  
 ],  
 ),  
 ),  
  
 SizedBox(width: 20.0),  
  
 Container(  
 decoration: BoxDecoration(  
 border: Border.all(  
 color: Colors.*black*,  
 ),  
 ),  
 child: Row(  
 children: [  
 Container(  
 width: 40,  
 child: TextButton(  
 onPressed: subtractm,  
 child: Icon(  
 Icons.*remove*,  
 color: Colors.*black*,  
 ),  
 ),  
 ),  
 Text(  
 ' $\_m children',  
 style: TextStyle(fontSize: 20),  
 ),  
 Container(  
 width: 40,  
 child: TextButton(  
 onPressed: addm,  
 child: Icon(  
 Icons.*add*,  
 color: Colors.*black*,  
 ),  
 ),  
 ),  
 ],  
 ),  
 ),  
 ],  
 ),  
 ),  
  
 SizedBox(height: 70.0),  
  
 Container(  
 width: double.*infinity*,  
 child: ElevatedButton(  
 onPressed: () {  
 ScaffoldMessenger.*of*(context).showSnackBar(  
 SnackBar(  
 content: Text(  
 "You are trying to find hotel for $\_n adults and $\_m children",  
 style: TextStyle(fontSize: 20),  
 ),  
 ),  
 );  
 },  
 style: ButtonStyle(  
 backgroundColor: MaterialStateProperty.*all*<Color>(  
 Colors.*deepOrange*),  
 padding: MaterialStateProperty.*all*<EdgeInsetsGeometry>(  
 EdgeInsets.all(15.0),  
 ),  
 ),  
 child: Text("Find Hotels", style: TextStyle(fontSize: 20),),  
 ),  
 ),  
  
 ],  
 ),  
 ),  
 ),  
 );  
 }  
}

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//2)

import 'package:flutter/material.dart';  
  
void main() {  
 runApp(const MyApp());  
}  
  
class MyApp extends StatelessWidget {  
 const MyApp({super.key});  
  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 title: 'Assignment 1',  
 home: Scaffold(  
 body: WeatherApp(),  
 ),  
 );  
 }  
}  
  
class WeatherApp extends StatelessWidget {  
 const WeatherApp({super.key});  
  
 @override  
 Widget build(BuildContext context) {  
 return Container(  
 color: Colors.*amber*,  
  
  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.center,  
 children: [  
 SizedBox(height: 50.0),  
  
 Container(  
 width: 350.0,  
 color: Colors.*white*,  
 padding: EdgeInsets.all(10.0),  
 child: Row(  
 children: [  
 Icon(Icons.*search*, color: Colors.*black*),  
 Container(  
 margin: EdgeInsets.symmetric(horizontal: 20.0),  
 child: Text(  
 'Cork', // Search text  
 style: TextStyle(fontSize: 18.0,color: Colors.*black*),  
 ),  
 ),  
 ],  
 ),  
 ),  
 SizedBox(height: 20.0),  
  
 Container(  
 padding: EdgeInsets.all(16.0),  
 child: Column(  
 children: [  
 Text(  
 'Cork', // Location text  
 style: TextStyle(fontSize: 45.0, color: Colors.*white*),  
 ),  
 Row(  
 children: [  
 SizedBox(width: 120.0),  
 Icon(Icons.*location\_on*, color: Colors.*white*),  
 SizedBox(width: 10.0),  
 Text(  
 '-8.47, 51.9', // City name text  
 style: TextStyle(fontSize: 16.0, color: Colors.*white*),  
 ),  
 ],  
 ),  
 ],  
 ),  
 ),  
 SizedBox(height: 40.0),  
  
 Container(  
 child: Row(  
 children: [  
 SizedBox(width: 50.0),  
 Column(  
 children: [  
 Text('16°C',style: TextStyle(fontSize: 45.0, color: Colors.*white*),  
 ),  
 Text('Feels like 13°C',style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 ],  
 ),  
 SizedBox(width: 50.0),  
 Stack(  
 children: <Widget>[  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 80.0,  
 ),  
 Icon(  
 Icons.*wb\_sunny*,  
 color: Colors.*white*,  
 size: 50.0,  
 ),  
 ],  
 )  
 ],  
 ),  
 ),  
 SizedBox(height: 30.0),  
  
 Container(  
 child: Text(  
 'Broken Clouds',  
 style: TextStyle(fontSize: 35.0, color: Colors.*white*,),  
 ),  
 ),  
 SizedBox(height: 130.0),  
  
 Container(  
 child: Row(  
 children: [  
 SizedBox(width: 30.0),  
 Column(  
 children: [  
 Text(  
 'Fri',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 Text(  
 '16°C',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 ],  
 ),  
 SizedBox(width: 10.0),  
 Stack(  
 children: <Widget>[  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 30.0,  
 ),  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 10.0,  
 ),  
 ],  
 ),  
  
 // Duplicate the code two more times  
 SizedBox(width: 30.0),  
 Column(  
 children: [  
 Text(  
 'Sat',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 Text(  
 '16°C',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 ],  
 ),  
 SizedBox(width: 10.0),  
 Stack(  
 children: <Widget>[  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 30.0,  
 ),  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 10.0,  
 ),  
 ],  
 ),  
  
 // Duplicate the code one more time  
 SizedBox(width: 30.0),  
 Column(  
 children: [  
 Text(  
 'Sun',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 Text(  
 '20°C',  
 style: TextStyle(fontSize: 20.0, color: Colors.*white*),  
 ),  
 ],  
 ),  
 SizedBox(width: 10.0),  
 Stack(  
 children: <Widget>[  
 Icon(  
 Icons.*cloud*,  
 color: Colors.*white*,  
 size: 30.0,  
 ),  
 Icon(  
 Icons.*wb\_sunny*,  
 color: Colors.*white*,  
 size: 10.0,  
 ),  
 ],  
 ),  
 ],  
 ),  
 ),  
 SizedBox(height: 30.0),  
  
 Container(  
 child: Row(  
 children: [  
 SizedBox(width: 80.0),  
 Icon(Icons.*access\_time*, color: Colors.*black54*,size: 18.0,),  
 SizedBox(width: 10.0),  
 Text(  
 'Last updated on 2:49 PM',  
 style: TextStyle(fontSize: 18.0, color: Colors.*black54*),  
 ),  
 ],  
 ),  
 )  
  
  
 ],  
 ),  
 );  
 }  
}

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Dart Tasks:

1.

print("Enter the radius: ");  
int radius = int.*parse*(stdin.readLineSync()!);  
// Anonymous function  
var AreaAndCircumference = (int rad){  
 var area = 3.14 \* rad \* rad;  
 var circumference = 2 \* 3.14 \* rad; // Circumference formula  
 return 'Area is $area circumference $circumference';  
};  
  
var result = AreaAndCircumference(radius);  
print(result);

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2.

class RBC extends SuperBank {  
 // Default constructor for RBC  
 RBC() : super() {  
 print("RBC!");  
 }  
  
 // Named constructor for RBC  
 RBC.namedConstructor(String bank) : super.namedConst(bank);  
  
 // Parameterized constructor for RBC  
 RBC.parameterizedConstructor(String bank, int money)  
 : super.parameterizedConstructor(bank, money );  
}

void main() {

SuperBank defaultSuperBank = SuperBank();  
SuperBank namedSuperBank = SuperBank.namedConst('Named SuperBank');  
SuperBank paramSuperBank = SuperBank.parameterizedConstructor('ParamSuperBank', 1000000);  
  
RBC defaultRBC = RBC();  
RBC namedRBC = RBC.namedConstructor('Named RBC');  
RBC paramRBC = RBC.parameterizedConstructor('ParamRBC', 500000);

}

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3.

print('Enter the Two numbers: ');  
double num1 = double.*tryParse*(stdin.readLineSync()!) ?? 0.0;  
double num2 = double.*tryParse*(stdin.readLineSync()!) ?? 0.0;  
  
print('Enter the operator (+, -, \*, /):');  
String operator = stdin.readLineSync()!;  
  
final calculator = (double a, double b, String operator) {  
 switch (operator) {  
 case '+':  
 return a + b;  
 case '-':  
 return a - b;  
 case '\*':  
 return a \* b;  
 case '/':  
 if (b != 0) {  
 return a / b;  
 } else {  
 return 'Division by zero is not allowed';  
 }  
 default:  
 return 'Invalid operator';  
 }  
};  
  
var result = calculator(num1, num2, operator);  
print('$num1 $operator $num2 = $result');

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4.

var myMap = <String, double> {};  
myMap["Alice"] = 60000;  
myMap["Bob"] = 55000;  
myMap["Charlie"] = 80000;  
myMap["David"] = 72000;  
myMap["Eve"] = 45000;  
  
  
print('Names of people with salaries between 50000 and 75000: ');  
myMap.forEach((name, salary) {  
 if (salary >= 50000 && salary <= 75000) {  
 print('$name has salary of $salary');  
 }  
});

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5.

List<int> numbers = [1, 2, 3, 4, 5];  
print('List of Numbers: $numbers');  
numbers.remove(3);  
print(numbers.reversed);  
print(numbers.contains(3));  
print('List of Numbers: $numbers');  
  
List<String> strings = ['apple', 'banana', 'cherry', 'date', 'elderberry'];  
print('List of Strings: $strings');  
strings.remove('apple');  
print(strings.reversed);  
print(strings.contains('apple'));  
print('List of Strings: $strings');

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