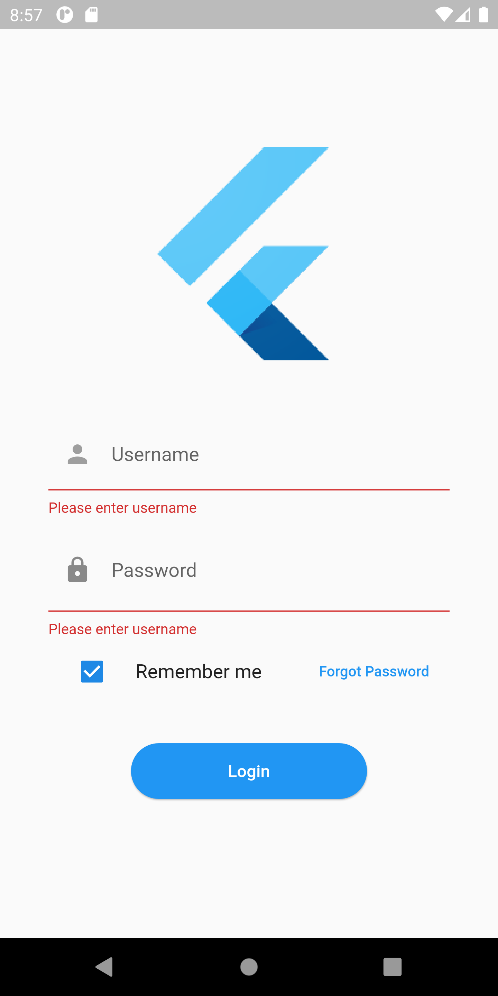
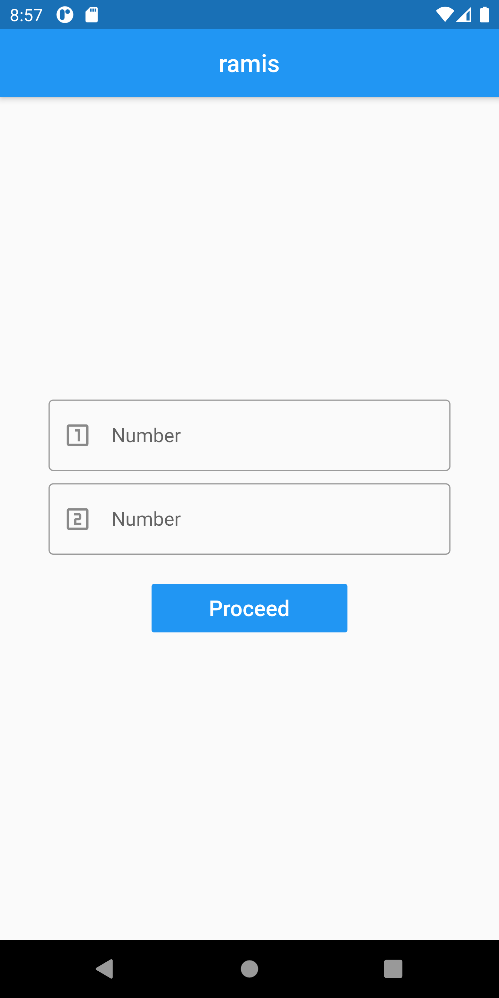
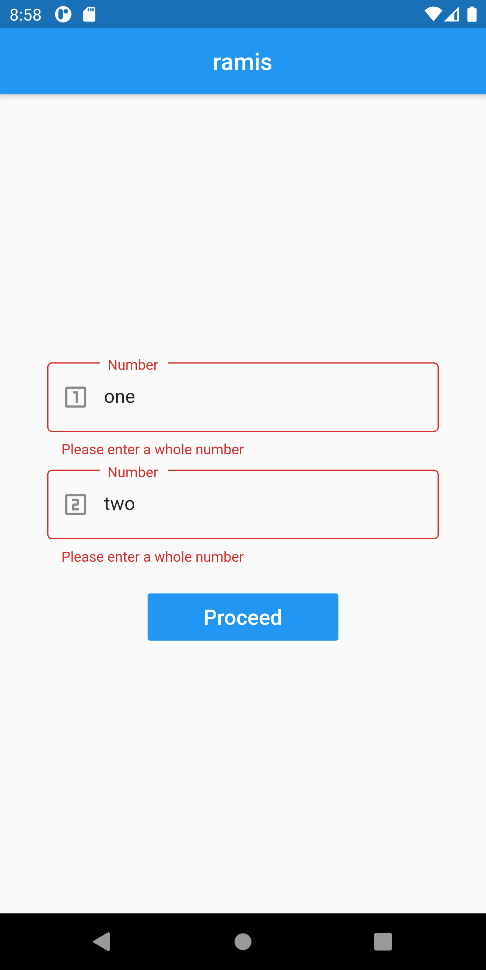
# Screenshots





# Solution

## Task Code:

### Main.dart

import 'package:flutter/material.dart';  
import 'package:madlab5/home.dart';  
import 'package:splashscreen/splashscreen.dart';  
  
void main() {runApp(MyApp());}  
  
class MyApp extends StatelessWidget {  
 // This widget is the root of your application.  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 debugShowCheckedModeBanner: false,  
 title: 'Lab 3',  
 home: Splash()  
 );  
 }  
}  
  
class Splash extends StatelessWidget {  
 @override  
 Widget build(BuildContext context) {  
 return SplashScreen(  
 seconds: 5,  
 backgroundColor: Colors.*white*,  
 image: Image.asset('files/flutter-logo.png'),  
 loaderColor: Colors.*blue*,  
 photoSize: 150,  
 navigateAfterSeconds: Login(),  
 );  
 }  
}  
  
class Login extends StatefulWidget {  
 @override  
 \_LoginState createState() => \_LoginState();  
}  
  
class \_LoginState extends State<Login> {  
 final usernameController = TextEditingController();  
 final passwordController = TextEditingController();  
 bool passwordHide = true;  
 bool rememberMe = true;  
 final formKey = GlobalKey<FormState>();  
  
 @override  
 Widget build(BuildContext context) {  
 return Form(  
 key: formKey,  
 child: Scaffold(  
 body: Center(  
 child: SingleChildScrollView(  
 child: Padding(  
 padding: EdgeInsets.symmetric(horizontal: 40).add(EdgeInsets.only(bottom: MediaQuery.*of*(context).viewInsets.bottom)),  
 child: Column(  
 mainAxisAlignment: MainAxisAlignment.center,  
 mainAxisSize: MainAxisSize.min,  
 children: [  
 Image.asset("files/flutter-logo.png"),  
 SizedBox(height: 40,),  
 TextFormField(  
 decoration: InputDecoration(  
 prefixIcon: Icon(Icons.*person*, color: Colors.*grey*,),  
 labelText: " Username ",  
 border: UnderlineInputBorder()  
 ),  
 controller: usernameController,  
 validator: (inputVal){  
 if (inputVal.length > 0)  
 return null;  
 else  
 return "Please enter username";  
 },  
 ),  
 SizedBox(height: 10,),  
 TextFormField(  
 obscureText: passwordHide,  
 decoration: InputDecoration(  
 prefixIcon: Icon(Icons.*lock*),  
 labelText: ' Password ',  
 suffix: GestureDetector(child: Icon(passwordHide ? Icons.*remove\_red\_eye* : Icons.*remove\_red\_eye\_outlined*), onTap: (){setState(() {passwordHide = !passwordHide;});},),  
 border: UnderlineInputBorder()  
 ),  
 controller: passwordController,  
 validator: (inputVal){  
 if (inputVal.length > 0)  
 return null;  
 else  
 return "Please enter username";  
 },  
 ),  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceBetween,  
 children: [  
 Container(width: 200, child: CheckboxListTile(controlAffinity: ListTileControlAffinity.leading, value: rememberMe, onChanged: (value){setState(() {rememberMe = value;});}, title: Text("Remember me"),)),  
 FlatButton(child: Text("Forgot Password", style: TextStyle(fontSize: 12),), textColor: Colors.*blue*, disabledTextColor: Colors.*blue*, onPressed: () { },)  
 ],  
 ),  
 SizedBox(height: 30,),  
 RaisedButton(  
 shape: StadiumBorder(),  
 elevation: 1,  
 color: Colors.*blue*,  
 padding: EdgeInsets.symmetric(horizontal: 80, vertical: 15),  
 textColor: Colors.*white*,  
 child: Text("Login"),  
 onPressed: ()async{  
 if (formKey.currentState.validate())  
 await showDialog(  
 context: context,  
 barrierDismissible: false,  
 builder: (ctx){  
 return AlertDialog(  
 title: Text("Your username is ${usernameController.text}"),  
 content: Text("Your password is ${passwordController.text}"),  
 actions: [  
 RaisedButton(  
 shape: StadiumBorder(),  
 elevation: 2,  
 color: Colors.*blue*,  
 textColor: Colors.*white*,  
 child: Text("Continue"),  
 onPressed: (){  
 Navigator.*of*(context).pop();  
 Navigator.*of*(context).push(MaterialPageRoute(builder: (context) => HomePage(usernameController.text)));  
 },  
 )  
 ],  
 );  
 }  
 );  
 },  
 )  
 ],  
 ),  
 ),  
 ),  
 ),  
 ),  
 );  
 }  
}

### Home.dart

import 'package:flutter/material.dart';  
import 'package:madlab5/calculation.dart';  
  
class HomePage extends StatefulWidget {  
 String username;  
 HomePage(this.username);  
 @override  
 \_HomePageState createState() => \_HomePageState();  
}  
  
class \_HomePageState extends State<HomePage> {  
 final num1Controller = TextEditingController();  
 final num2Controller = TextEditingController();  
 final formKey = GlobalKey<FormState>();  
  
 @override  
 Widget build(BuildContext context) {  
 return Form(  
 key: formKey,  
 child: Scaffold(  
 appBar: AppBar(  
 centerTitle: true,  
 title: Text(widget.username),  
 automaticallyImplyLeading: false,  
 ),  
 body: Center(  
 child: SingleChildScrollView(  
 child: Padding(  
 padding: EdgeInsets.symmetric(horizontal: 40).add(EdgeInsets.only(bottom: MediaQuery.*of*(context).viewInsets.bottom)),  
 child: Column(  
 children: [  
 TextFormField(  
 decoration: InputDecoration(  
 prefixIcon: Icon(Icons.*looks\_one\_outlined*),  
 labelText: " Number ",  
 border: OutlineInputBorder()  
 ),  
 controller: num1Controller,  
 validator: (inputVal){  
 if (inputVal.length > 0 && (int.*tryParse*(inputVal) != null))  
 return null;  
 else  
 return "Please enter a whole number";  
 },  
 ),  
 SizedBox(height: 10,),  
 TextFormField(  
 decoration: InputDecoration(  
 prefixIcon: Icon(Icons.*looks\_two\_outlined*),  
 labelText: ' Number ',  
 border: OutlineInputBorder()  
 ),  
 controller: num2Controller,  
 validator: (inputVal){  
 if (inputVal.length > 0 && (int.*tryParse*(inputVal) != null))  
 return null;  
 else  
 return "Please enter a whole number";  
 },  
 ),  
 SizedBox(height: 20,),  
 FlatButton(  
 height: 40,  
 minWidth: MediaQuery.*of*(context).size.width - 250,  
 color: Colors.*blue*,  
 textColor: Colors.*white*,  
 child: Text("Proceed", style: TextStyle(fontSize: 18),),  
 onPressed: (){  
 if (formKey.currentState.validate())  
 Navigator.*of*(context).push(MaterialPageRoute(builder: (context) => CalculationScreen(int.*parse*(num1Controller.text), int.*parse*(num2Controller.text))));  
 }  
 )  
 ],  
 ),  
 ),  
 ),  
 ),  
 ),  
 );  
 }  
}

### Calculation.dart

import 'package:flutter/material.dart';  
  
class CalculationScreen extends StatefulWidget {  
 int number1;  
 int number2;  
  
 CalculationScreen(this.number1, this.number2);  
 @override  
 \_CalculationScreenState createState() => \_CalculationScreenState();  
}  
  
class \_CalculationScreenState extends State<CalculationScreen> {  
 @override  
 Widget build(BuildContext context) {  
 return Scaffold(  
 appBar: AppBar(  
 leadingWidth: 200,  
 leading: GestureDetector(  
 onTap: (){Navigator.*of*(context).pop();},  
 child: Row(  
 mainAxisSize: MainAxisSize.min,  
 crossAxisAlignment: CrossAxisAlignment.center,  
 children: [  
 SizedBox(width: 10,),  
 Icon(Icons.*arrow\_back\_ios*),  
 Text("Back", style: TextStyle(color: Colors.*white*, fontSize: 16),)  
 ],  
 ),  
 ),  
 ),  
 body: SingleChildScrollView(  
 child: DefaultTextStyle(  
 style: TextStyle(fontWeight: FontWeight.*bold*, color: Colors.*black*),  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.start,  
 children: [  
 Container(  
 padding: EdgeInsets.only(left: 20, top: 10, bottom: 10),  
 width: MediaQuery.*of*(context).size.width,  
 decoration: BoxDecoration(  
 color: Colors.*grey*,  
 ),  
 child: Text("Section total: ${3 + widget.number1 + widget.number2}", style: TextStyle(fontSize: 18),),  
 ),  
 Container(  
 padding: EdgeInsets.symmetric(horizontal: 10, vertical: 10),  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.start,  
 children: [  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("1"), Text("+"), Text(widget.number1.toString()), Text("="), Text((widget.number1 + 1).toString())],  
 ),  
 SizedBox(height: 10,),  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("2"), Text("+"), Text(widget.number2.toString()), Text("="), Text((widget.number2 + 2).toString())],  
 ),  
 SizedBox(height: 10,),  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("Total : "), Text("3"), Text("+"), Text((widget.number1 + widget.number2).toString()), Text("="), Text((widget.number1 + widget.number2 + 3).toString())],  
 )  
 ],  
 ),  
 ),  
 Divider(thickness: 2,height: 3,),  
 Container(  
 padding: EdgeInsets.only(left: 20, top: 10, bottom: 10),  
 width: MediaQuery.*of*(context).size.width,  
 decoration: BoxDecoration(  
 color: Colors.*grey*,  
 ),  
 child: Text("Section total: ${7 + widget.number1 + widget.number2}", style: TextStyle(fontSize: 18),),  
 ),  
 Container(  
 padding: EdgeInsets.symmetric(horizontal: 10, vertical: 10),  
 child: Column(  
 crossAxisAlignment: CrossAxisAlignment.start,  
 children: [  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("3"), Text("+"), Text(widget.number1.toString()), Text("="), Text((widget.number1 + 3).toString())],  
 ),  
 SizedBox(height: 10,),  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("4"), Text("+"), Text(widget.number2.toString()), Text("="), Text((widget.number2 + 4).toString())],  
 ),  
 SizedBox(height: 10,),  
 Row(  
 mainAxisAlignment: MainAxisAlignment.spaceEvenly,  
 children: [Text("Total : "), Text("7"), Text("+"), Text((widget.number1 + widget.number2).toString()), Text("="), Text((widget.number1 + widget.number2 + 7).toString())],  
 )  
 ],  
 ),  
 ),  
 Divider(thickness: 2,),  
 ],  
 ),  
 ),  
 ),  
 );  
 }  
}