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ICT Department

Firebase: របៀបធ្វើ Sign In ជាមួយនឹង Email Password និង លេខទូរស័ព្ទ

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របៀបប្រើ Firebase Auth ដើម្បីអាច Login តាម Email/Password

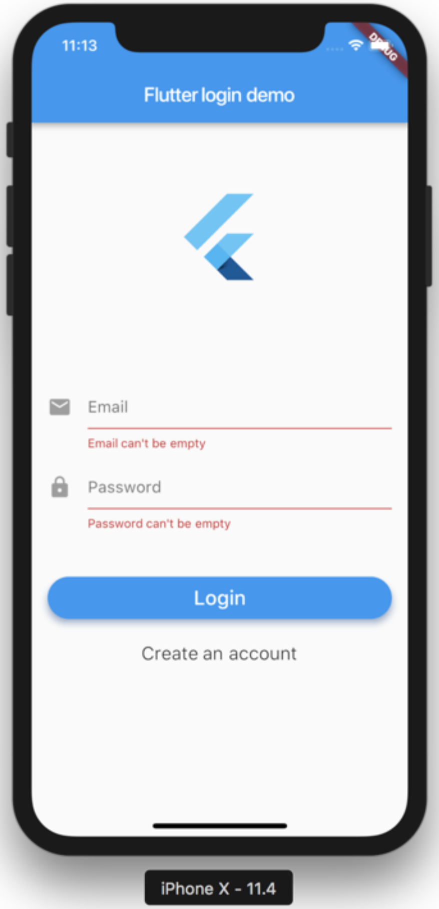
មកដល់ចំនុច Firebase Authentication នេះ គឺវាទាមទារហើយយើងប្រើជាមួយនឹងទូរសព្ទពិតប្រាកដ។ ហើយបើយើងចង់ប្រើ Android Emulator គឺយើងត្រូវ update PlayStore យក version ចុងក្រោយ។ តែយ៉ាងណាក្តី Emulator មិនអាចប្រើជាមួយនឹងលេខទូរស័ព្ទបានទេ។ ដូចនេះសូមប្រើទូរសព្ទ័ផ្ទាល់ទើបល្អជាង។

1. ដំបូងយើងដាក់ dependency firebase_auth:

```
dependencies:
  firebase_auth: ^0.18.0+1
```

សូមមើល version ចុងក្រោយ

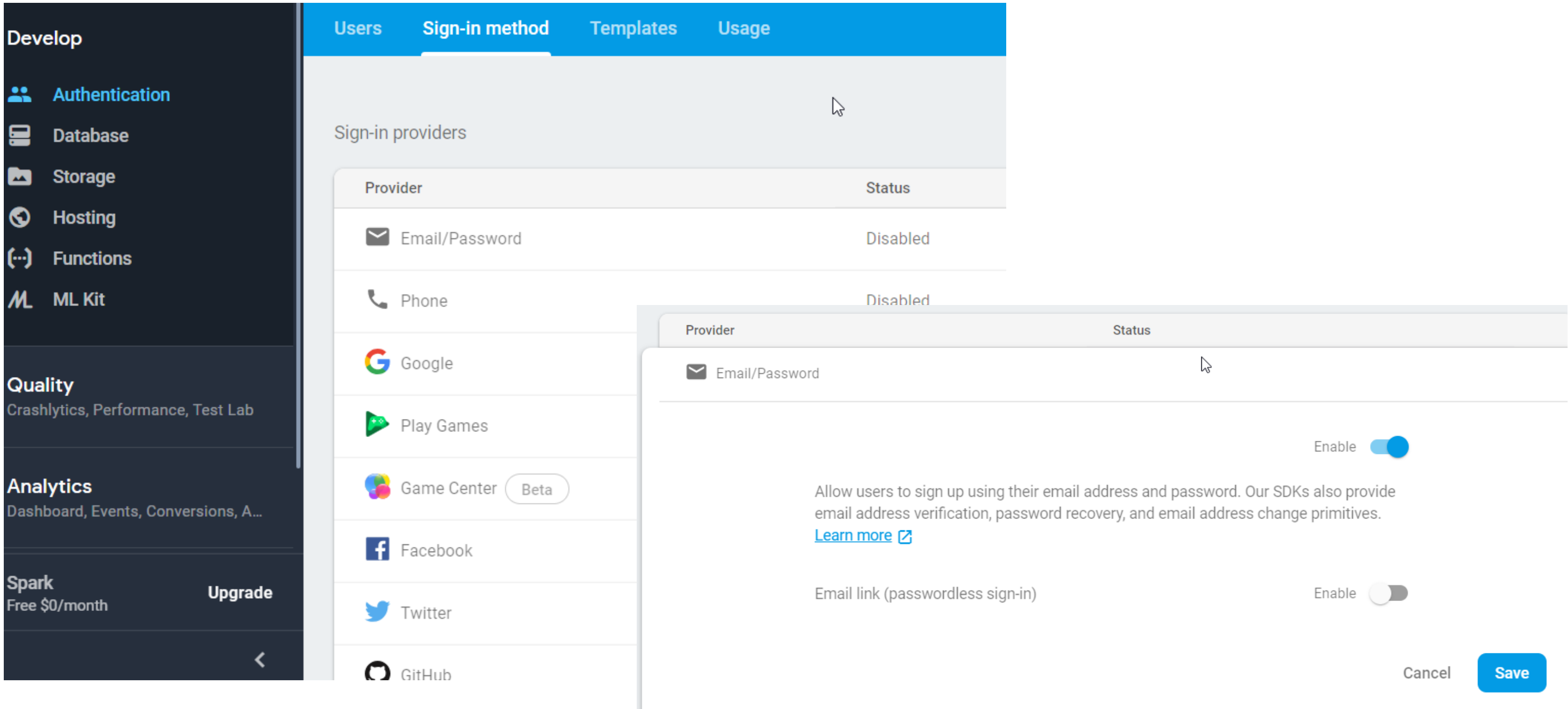
https://pub.dev/packages/firebase_auth



Email can't be empty

Password can't be empty

2. សូមបើក Email/Password នៅក្នុង Authentication៖



Email/Password Disabled

Phone Disabled

Email/Password

Enable ●

Allow users to sign up using their email address and password. Our SDKs also provide email address verification, password recovery, and email address change primitives.
Learn more

Email link (passwordless sign-in) Enable ○

បង្កើត account ជាមួយនឹង Email Password

```
import 'package:firebase_auth/firebase_auth.dart' as auth;
```

```
auth.FirebaseAuth.instance
    .createUserWithEmailAndPassword(
        email: _emailCtrl.text, password: _passCtrl.text)
    .catchError((error) {
  print(" Something wrong while creating account: $error");
}).then((result) {
  if (result == null) {
    print("Login failed"),
  } else {
    auth.User user = result.user;
    user.updateProfile(displayName: "Sok San");

    Navigator.of(context).pushReplacement(
        MaterialPageRoute(builder: (context) => LoginPage()));
  }
});
```

Sign In ជាមួយនឹង Email Password

```
import 'package:firebase_auth/firebase_auth.dart' as auth;
```

```
auth.FirebaseAuth.instance
    .signInWithEmailAndPassword(
        email: _emailCtrl.text, password: _passCtrl.text)
    .catchError((error) async {
    print("Something wrong with login: $error "),
}).then((result) {
  if (result == null) {
    print("Login Failed"),
  } else {
    auth.User user = result.user;
    Navigator.of(context).pushReplacement(MaterialPageRoute(
        builder: (context) => MainPage(
              user: user,
            )));
  }
```

កូដសំខាន់ៗរបស់ Firebase Auth

- ដើម្បីទាញយកទិន្នន័យរបស់ user ដែលបាន Sign In ហើយ គឺយើងហៅតាម method currentUser():

```
auth.User user = FirebaseAuth.instance.currentUser;
```

```
String uid = user.uid;
String email = user.email;
String phone = user.phoneNumber;
String name = user.displayName;
String photoUrl = user.photoURL;
String idToken = await user.getIdToken();
```

- ដើម្បីលុប account:

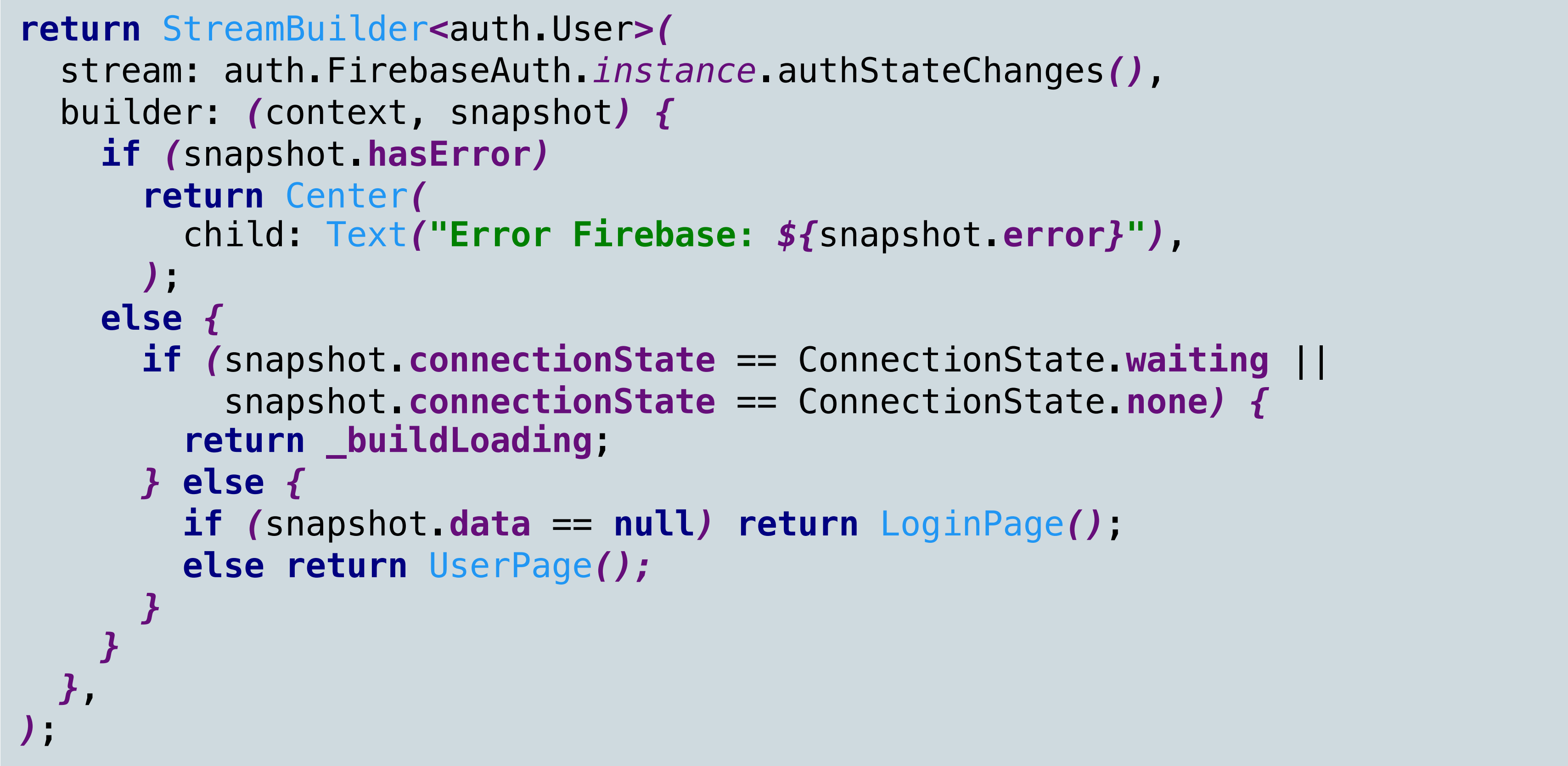
```
await user.delete();
```

- ដើម្បី Sign out គឺយើងហៅ method signOut():

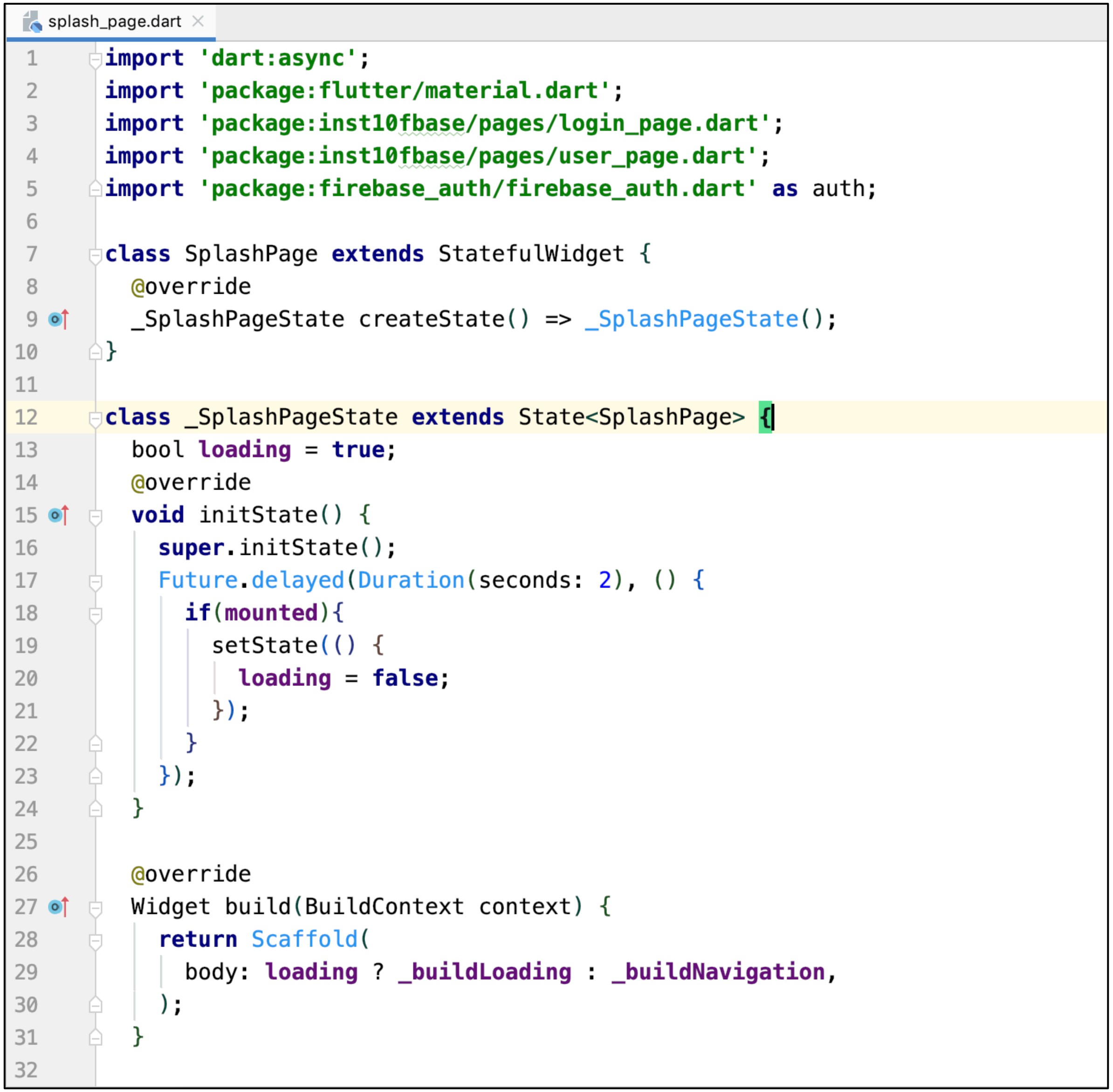
```
await auth.FirebaseAuth.instance.signOut();
```

របៀបធ្វើ SplashScreen ដើម្បីឆែក Login

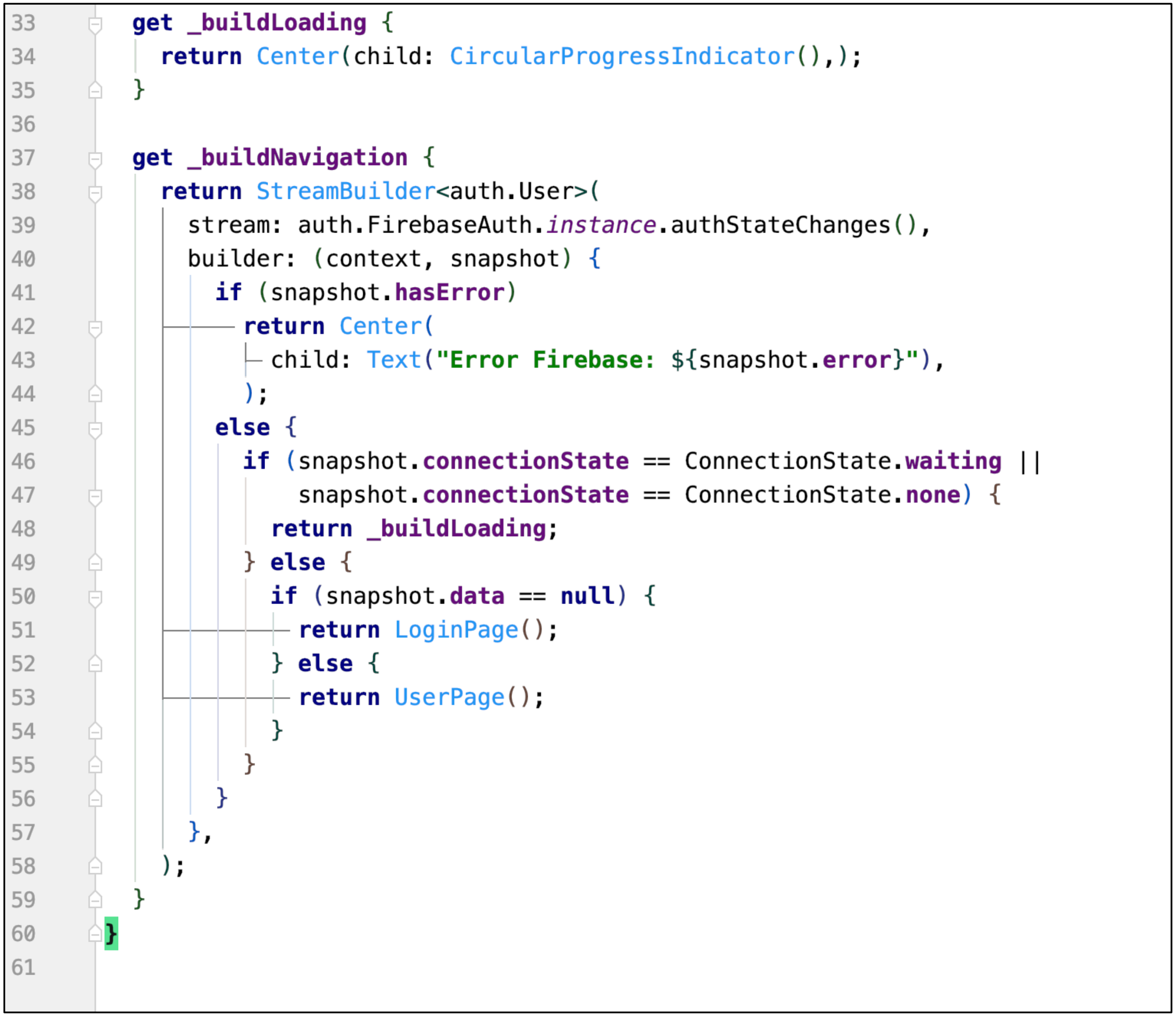
- យើងអាចសរសេរកូដអោយវាឆែកថាតើ user បាន login ហើយនៅ? បើនៅទេ យើងរុញទៅ LoginPage។ តែបើ login ហើយ គឺរុញទៅ MainPage៖



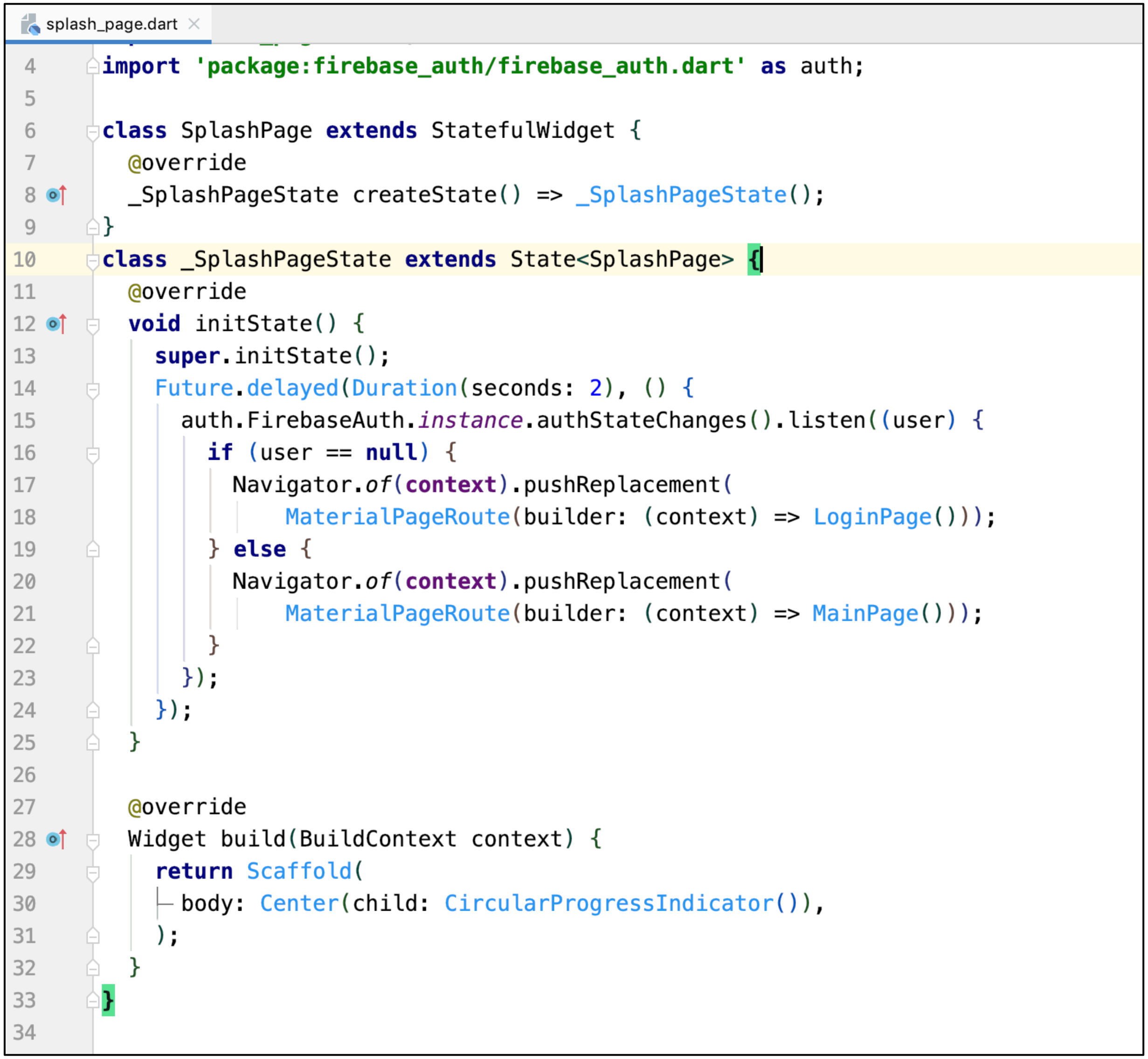
```
return StreamBuilder<auth.User>(
  stream: auth.FirebaseAuth.instance.authStateChanges(),
  builder: (context, snapshot) {
    if (snapshot.hasError)
      return Center(
        child: Text("Error Firebase: ${snapshot.error}"),
      );
    else {
      if (snapshot.connectionState == ConnectionState.waiting ||
          snapshot.connectionState == ConnectionState.none) {
        return _buildLoading;
      } else {
        if (snapshot.data == null) return LoginPage();
        else return UserPage();
      }
    }
  },
);
```



```dart
import 'dart:async';
import 'package:flutter/material.dart';
import 'package:inst10fbase/pages/login_page.dart';
import 'package:inst10fbase/pages/user_page.dart';
import 'package:firebase_auth/firebase_auth.dart' as auth;

class SplashPage extends StatefulWidget {
  @override
  _SplashPageState createState() => _SplashPageState();
}

class _SplashPageState extends State<SplashPage> {
  bool loading = true;
  @override
  void initState() {
    super.initState();
    Future.delayed(Duration(seconds: 2), () {
      if(mounted){
        setState(() {
          loading = false;
        });
      }
    });
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: loading ? _buildLoading : _buildNavigation,
    );
  }

```



```
  get _buildLoading {
    return Center(child: CircularProgressIndicator(),);
  }

  get _buildNavigation {
    return StreamBuilder<auth.User>(
      stream: auth.FirebaseAuth.instance.authStateChanges(),
      builder: (context, snapshot) {
        if (snapshot.hasError)
          return Center(
            child: Text("Error Firebase: ${snapshot.error}"),
          );
        else {
          if (snapshot.connectionState == ConnectionState.waiting ||
              snapshot.connectionState == ConnectionState.none) {
            return _buildLoading;
          } else {
            if (snapshot.data == null) {
              return LoginPage();
            } else {
              return UserPage();
            }
          }
        }
      },
    );
  }
}

```



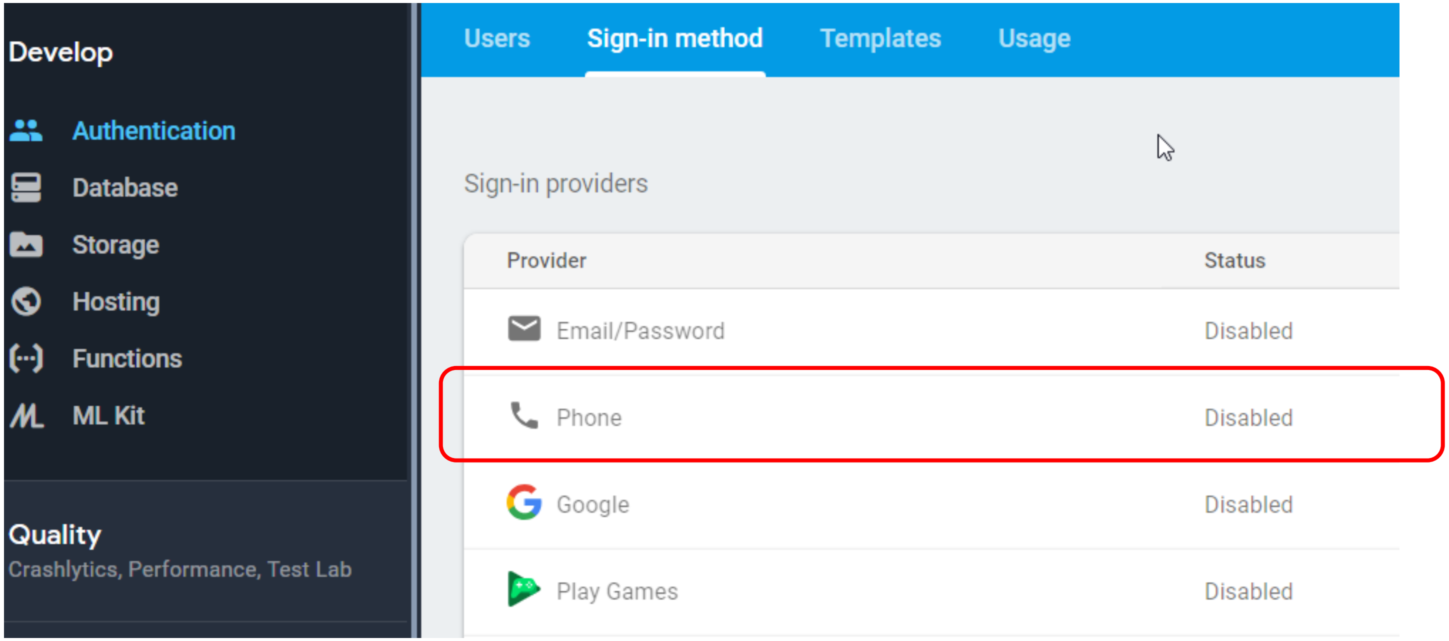
```
import 'package:firebase_auth/firebase_auth.dart' as auth;

class SplashPage extends StatefulWidget {
  @override
  _SplashPageState createState() => _SplashPageState();
}
class _SplashPageState extends State<SplashPage> {
  @override
  void initState() {
    super.initState();
    Future.delayed(Duration(seconds: 2), () {
      auth.FirebaseAuth.instance.authStateChanges().listen((user) {
        if (user == null) {
          Navigator.of(context).pushReplacement(
              MaterialPageRoute(builder: (context) => LoginPage()));
        } else {
          Navigator.of(context).pushReplacement(
              MaterialPageRoute(builder: (context) => MainPage()));
        }
      });
    });
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Center(child: CircularProgressIndicator()),
    );
  }
}
```

របៀប Sign In ដោយប្រើ Phone Number

ក្នុង Firebase Auth គឺយើងអាច Sign In ដោយប្រើលេខទូរស័ព្ទផងដែរ

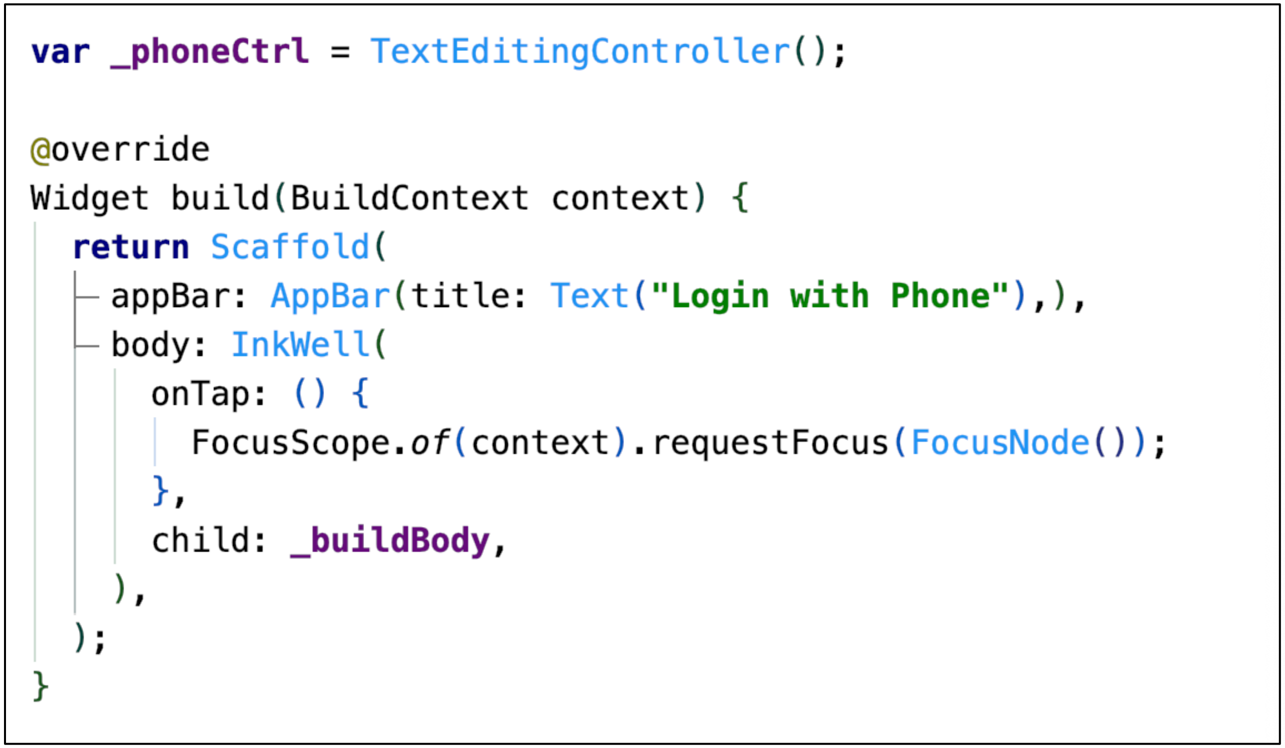
បញ្ជាក់៖ យើងត្រូវតេស្តិ៍កូដនេះជាមួយនឹងទូរសព្ទពិតដែលប្រើលេខទូរស័ព្ទណាមួយ ពិតប្រាកដ

1. ដំបូងយើងគ្រាន់តែដាក់ dependency firebase_auth ដូចពីមុនដែរ
2. បន្ទាប់មក យើងបើក option Phone ក្នុង Firebase Authentication៖

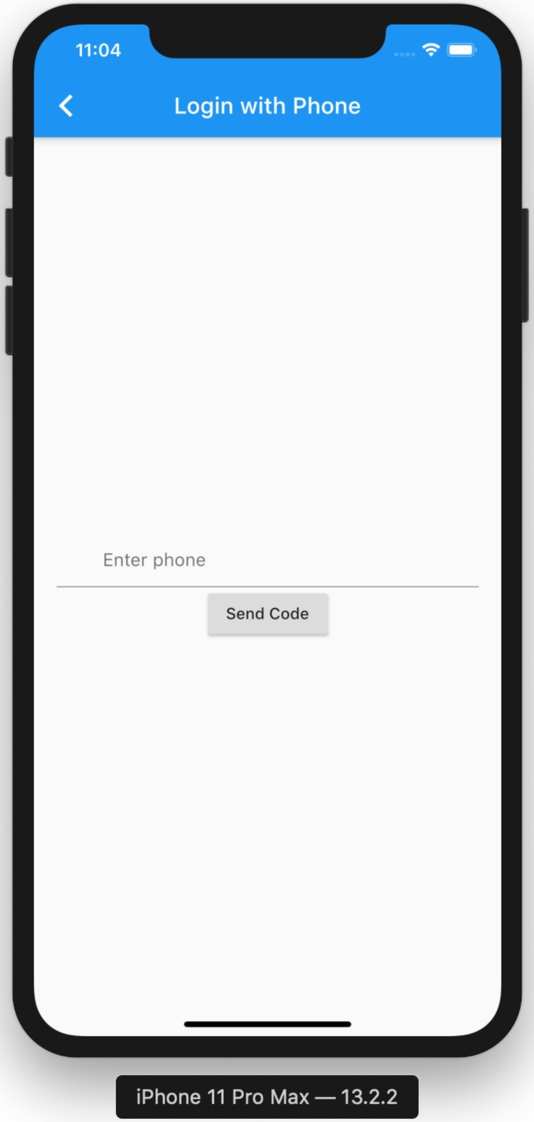


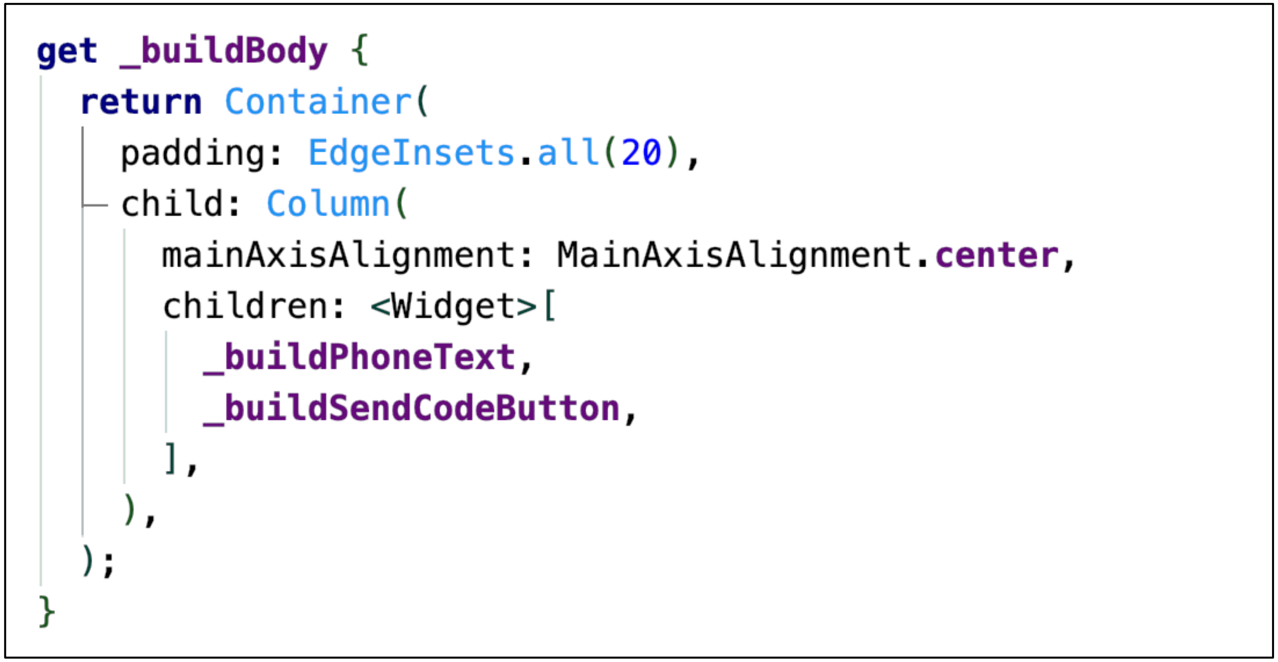
Sign-in providers

Provider	Status
Email/Password	Disabled
Phone	Disabled
Google	Disabled
Play Games	Disabled

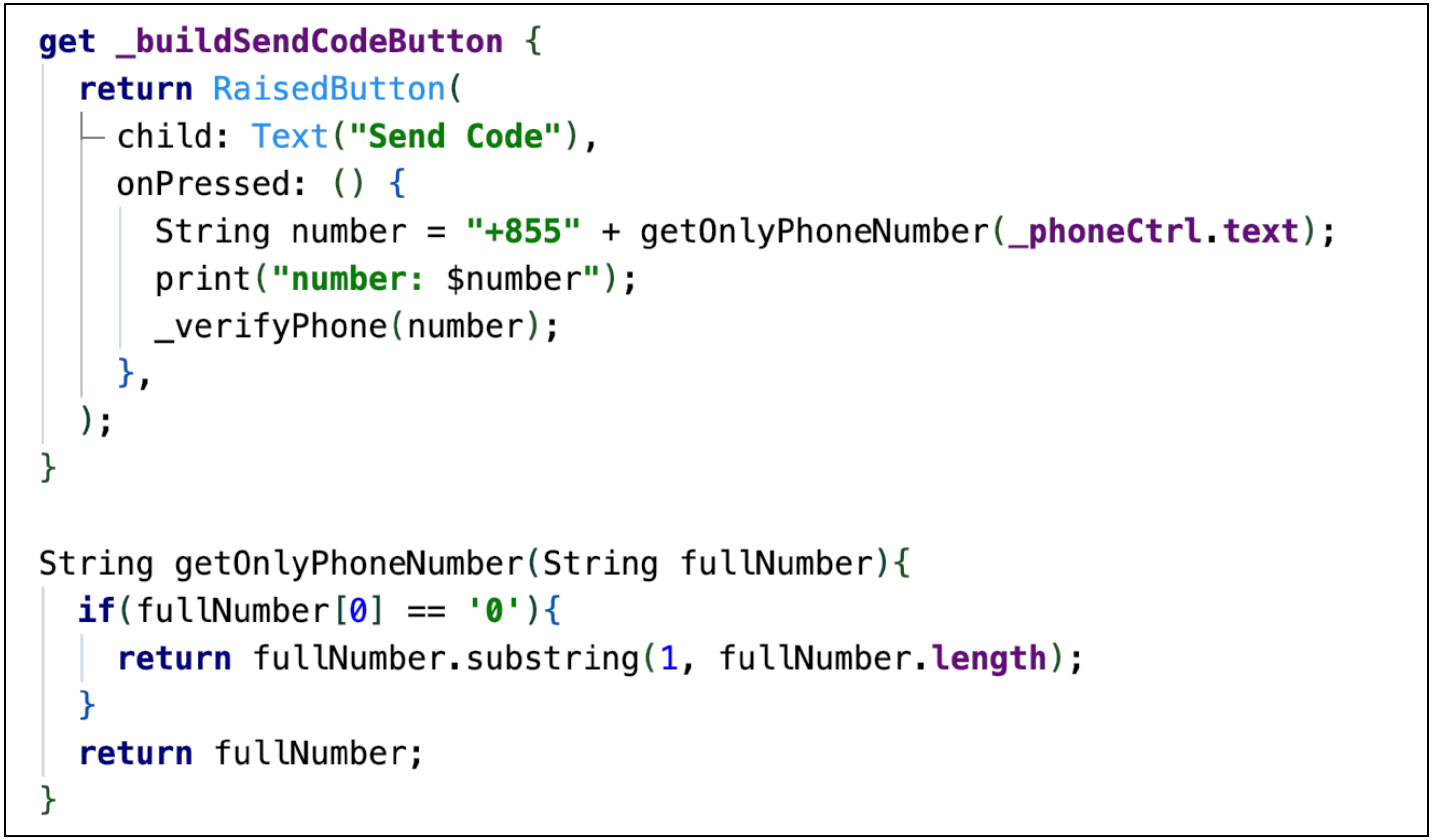


```
var _phoneCtrl = TextEditingController();

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(title: Text("Login with Phone"),),
    body: InkWell(
      onTap: () {
        FocusScope.of(context).requestFocus(FocusNode());
      },
      child: _buildBody,
    ),
  );
}
```

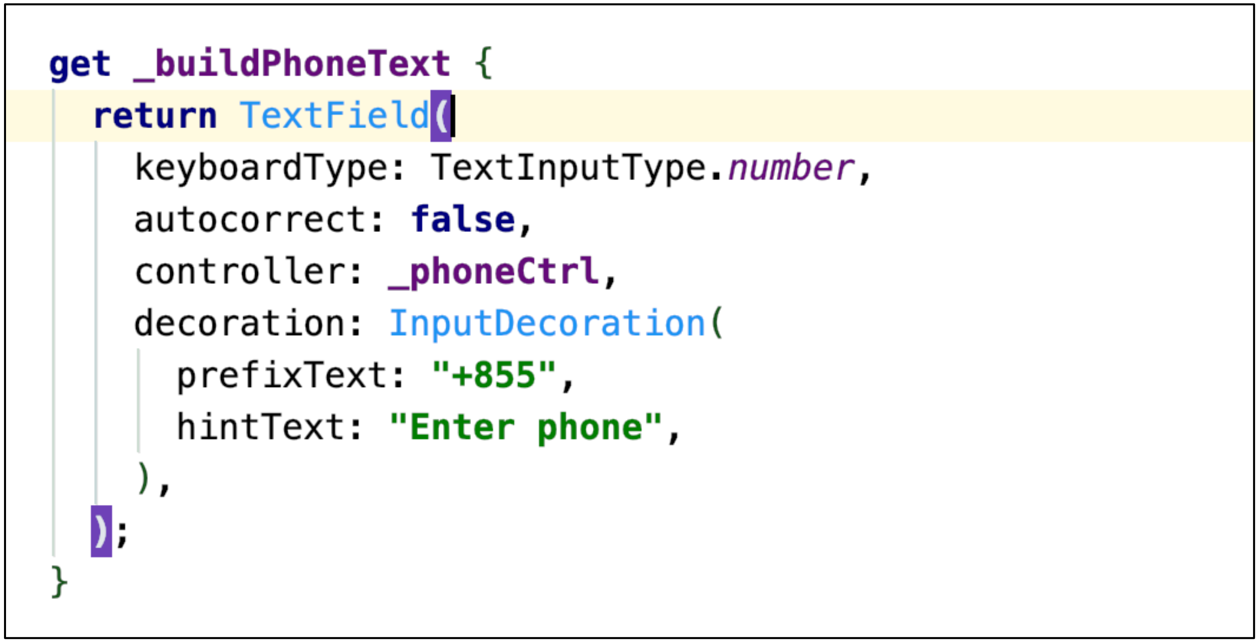




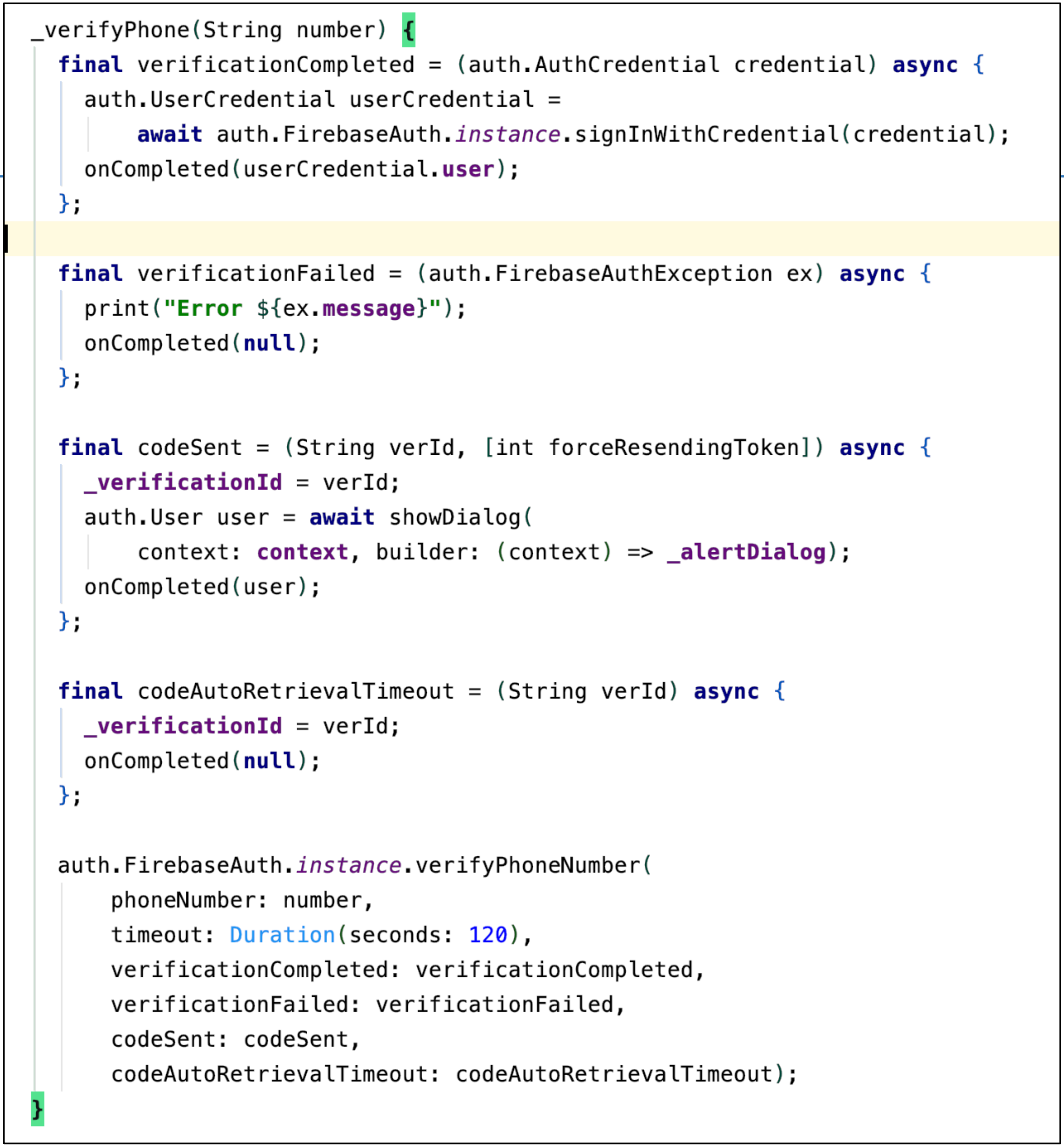
```
get _buildBody {
  return Container(
    padding: EdgeInsets.all(20),
    child: Column(
      mainAxisAlignment: MainAxisAlignment.center,
      children: <Widget>[
        _buildPhoneText,
        _buildSendCodeButton,
      ],
    ),
  );
}
```



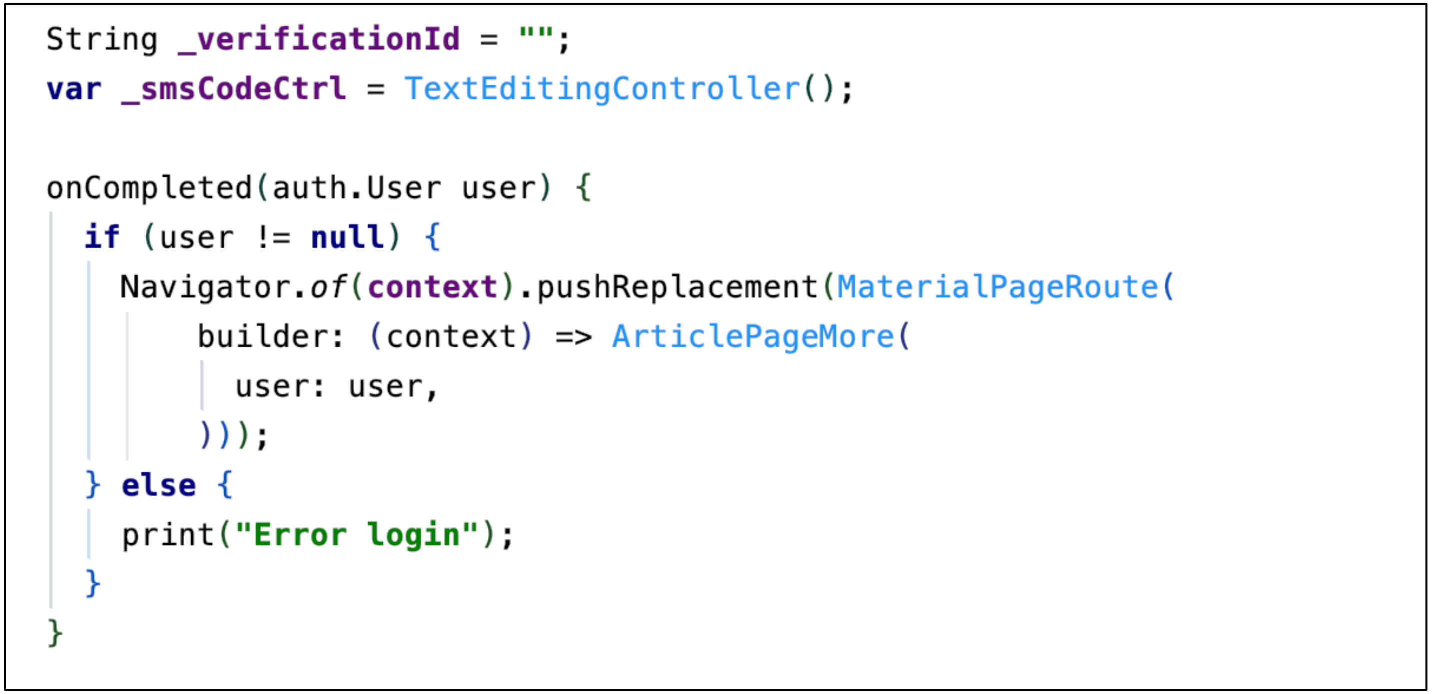
```
get _buildSendCodeButton {
  return RaisedButton(
    child: Text("Send Code"),
    onPressed: () {
      String number = "+855" + getOnlyPhoneNumber(_phoneCtrl.text);
      print("number: $number");
      _verifyPhone(number);
    },
  );
}

String getOnlyPhoneNumber(String fullNumber){
  if(fullNumber[0] == '0'){
    return fullNumber.substring(1, fullNumber.length);
  }
  return fullNumber;
}
```



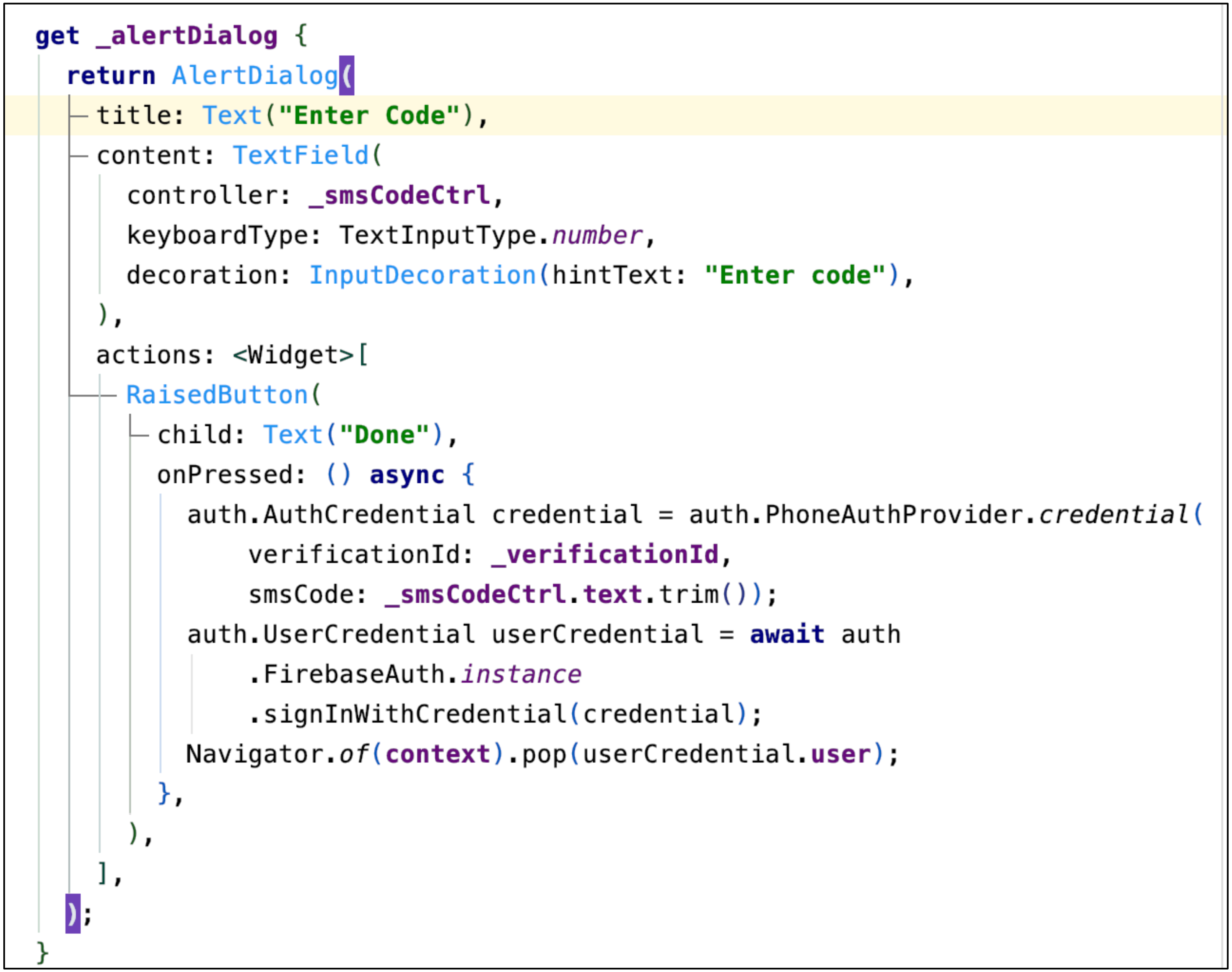
```
get _buildPhoneText {
  return TextField(
    keyboardType: TextInputType.number,
    autocorrect: false,
    controller: _phoneCtrl,
    decoration: InputDecoration(
      prefixText: "+855",
      hintText: "Enter phone",
    ),
  );
}
```



```
_verifyPhone(String number) {
  final verificationCompleted = (auth.AuthCredential credential) async {
    auth.UserCredential userCredential =
        await auth.FirebaseAuth.instance.signInWithCredential(credential);
    onCompleted(userCredential.user);
  };

  final verificationFailed = (auth.FirebaseAuthException ex) async {
    print("Error ${ex.message}");
    onCompleted(null);
  };

  final codeSent = (String verId, [int forceResendingToken]) async {
    _verificationId = verId;
    auth.User user = await showDialog(
        context: context, builder: (context) => _alertDialog);
    onCompleted(user);
  };

  final codeAutoRetrievalTimeout = (String verId) async {
    _verificationId = verId;
    onCompleted(null);
  };

  auth.FirebaseAuth.instance.verifyPhoneNumber(
      phoneNumber: number,
      timeout: Duration(seconds: 120),
      verificationCompleted: verificationCompleted,
      verificationFailed: verificationFailed,
      codeSent: codeSent,
      codeAutoRetrievalTimeout: codeAutoRetrievalTimeout);
}
```



```
String _verificationId = "";
var _smsCodeCtrl = TextEditingController();

onCompleted(auth.User user) {
  if (user != null) {
    Navigator.of(context).pushReplacement(MaterialPageRoute(
        builder: (context) => ArticlePageMore(
          user: user,
        )));
  } else {
    print("Error login");
  }
}
```



```
get _alertDialog {
  return AlertDialog(
    title: Text("Enter Code"),
    content: TextField(
      controller: _smsCodeCtrl,
      keyboardType: TextInputType.number,
      decoration: InputDecoration(hintText: "Enter code"),
    ),
    actions: <Widget>[
      RaisedButton(
        child: Text("Done"),
        onPressed: () async {
          auth.AuthCredential credential = auth.PhoneAuthProvider.credential(
              verificationId: _verificationId,
              smsCode: _smsCodeCtrl.text.trim());
          auth.UserCredential userCredential = await auth
              .FirebaseAuth.instance
              .signInWithCredential(credential);
          Navigator.of(context).pop(userCredential.user);
        },
      ),
    ],
  );
}
```