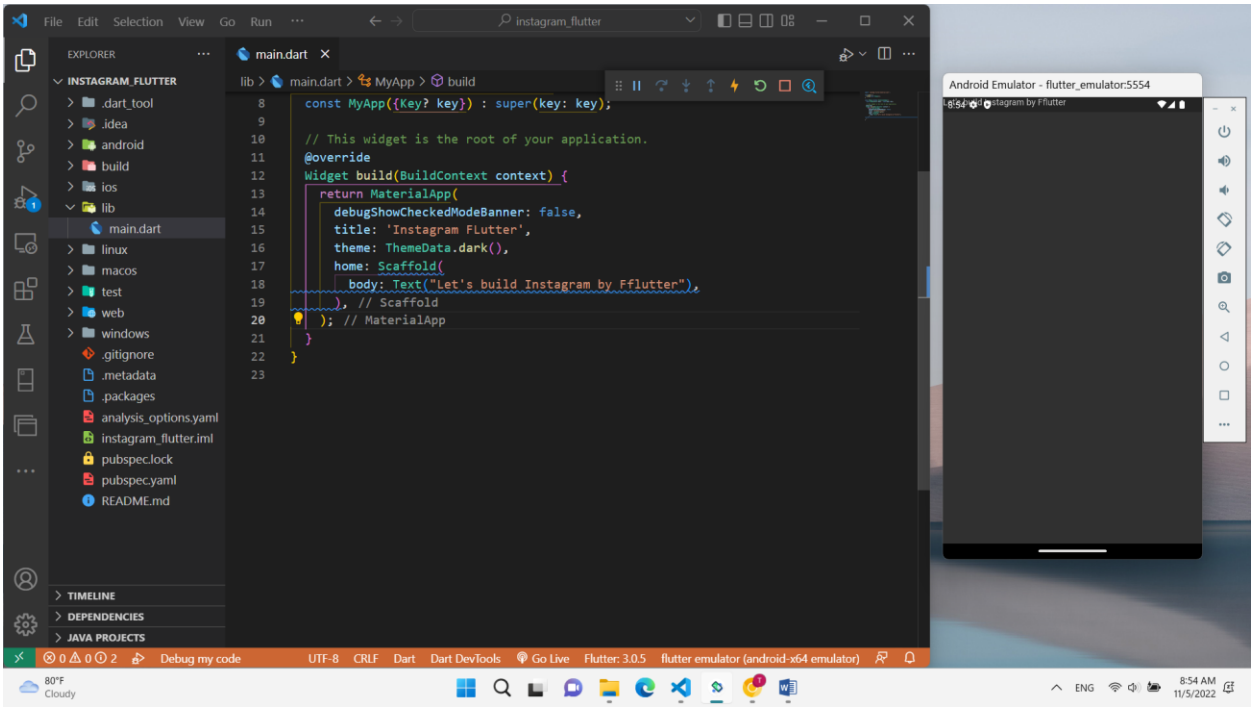
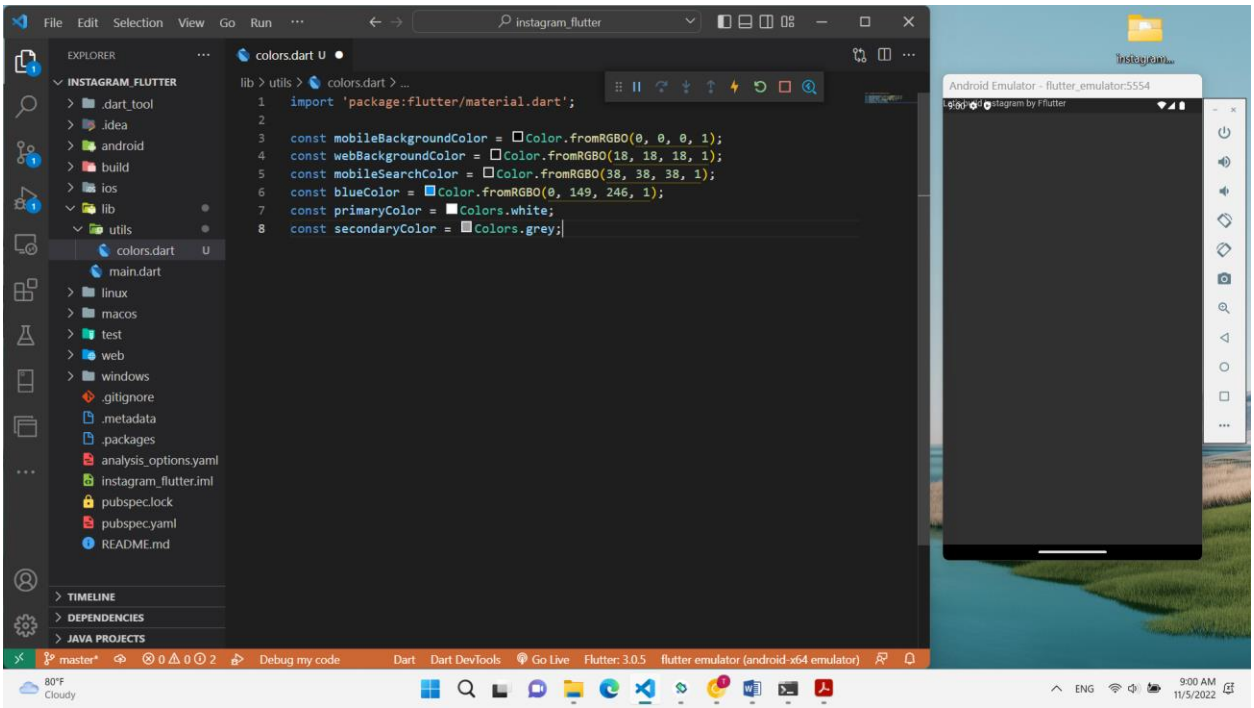
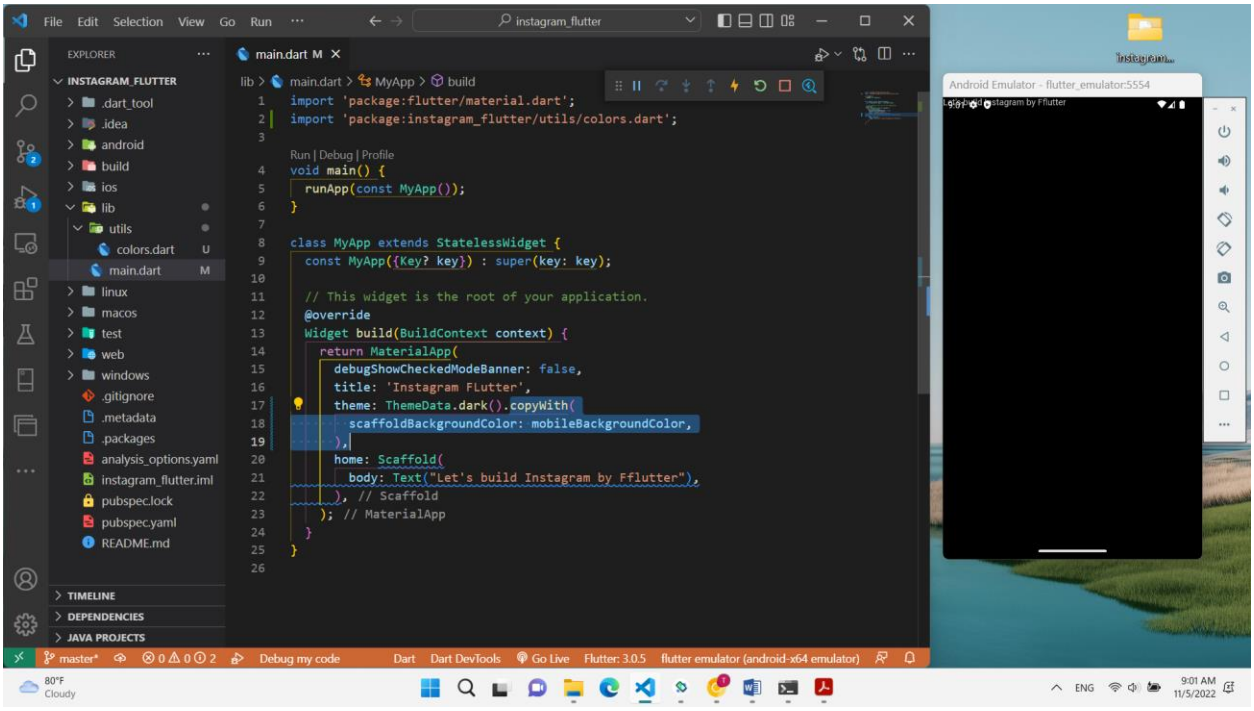
Bước 1. Khởi tạo dự án và thiết lập chủ đề



Bước 2. Tạo tập tin lib/utils và copy colors.dart vào để chỉnh màu sắc

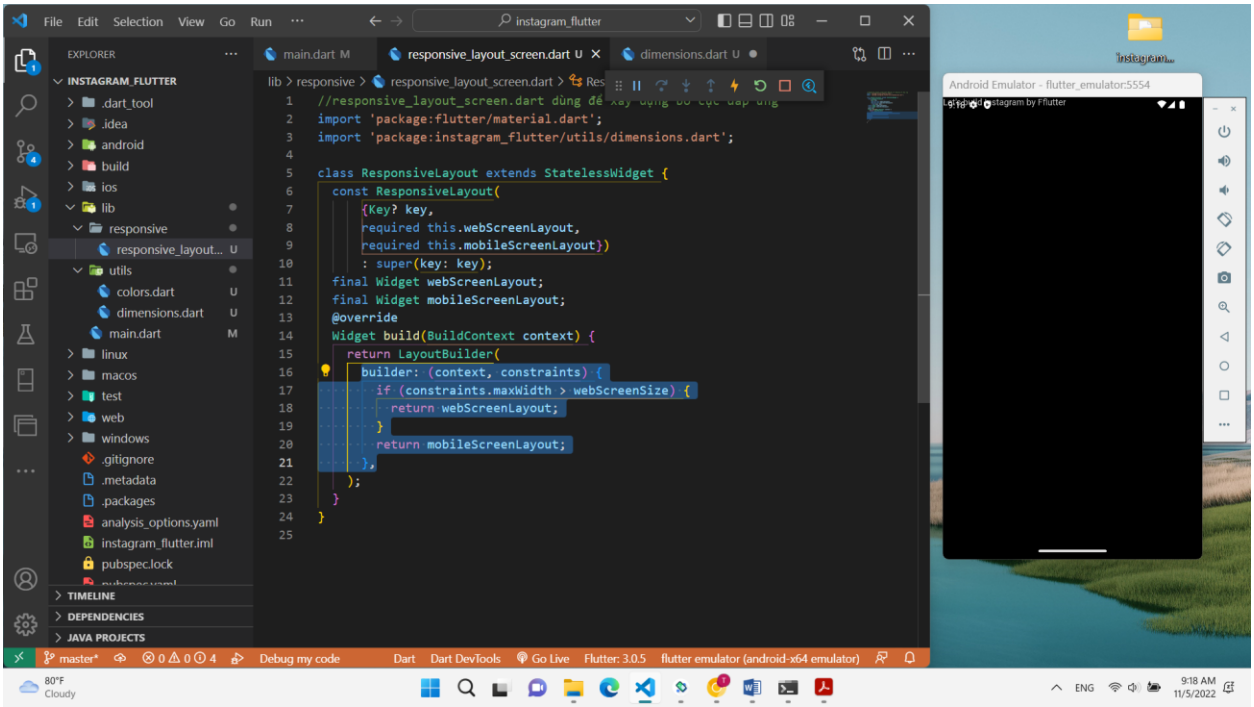


Bước 3. Hiệu chỉnh màu sắc

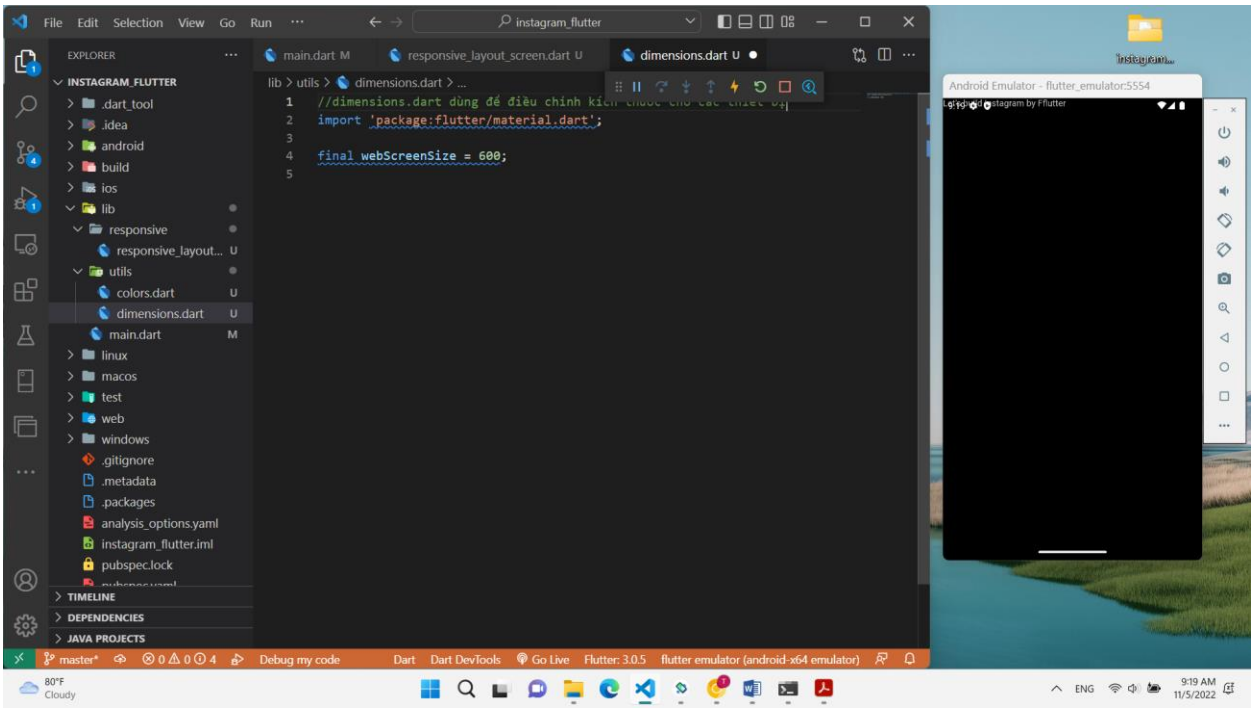


Bước 4. Xây dựng bố cục đáp ứng (Responsive layout screen)

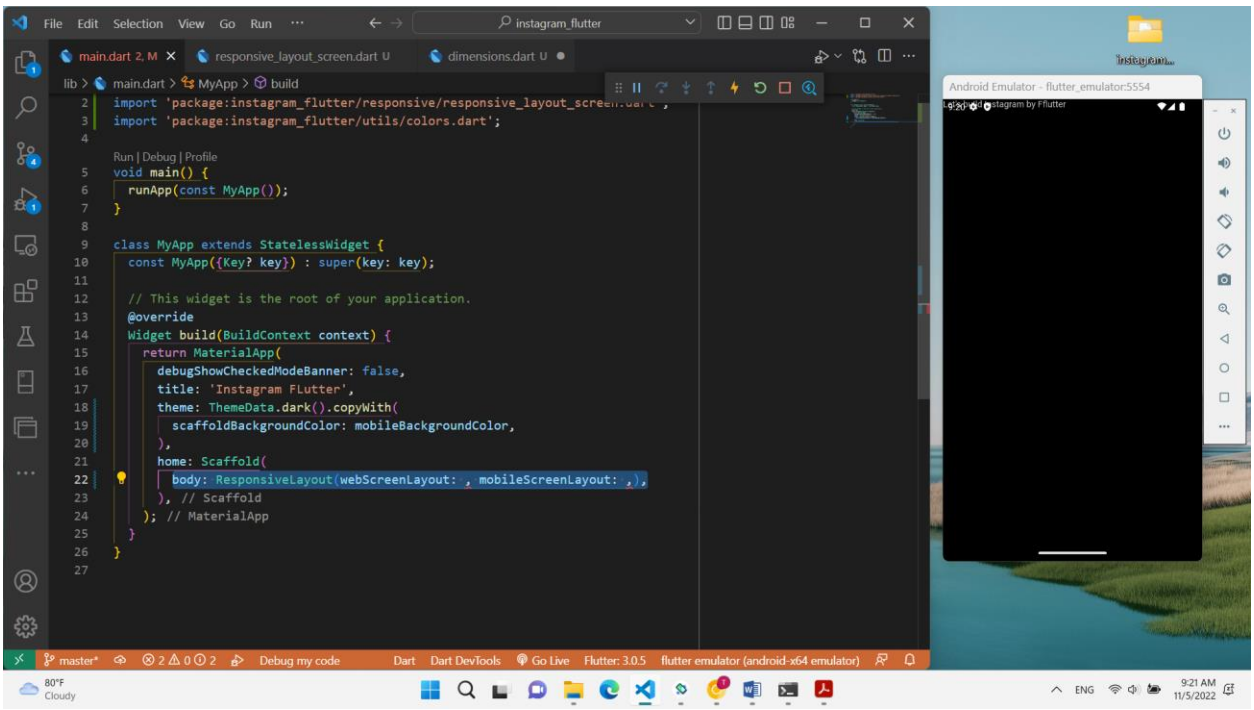
Tạo file lib/responsive/responsive_layout_screen.dart và chỉnh nội dung như hình bên dưới



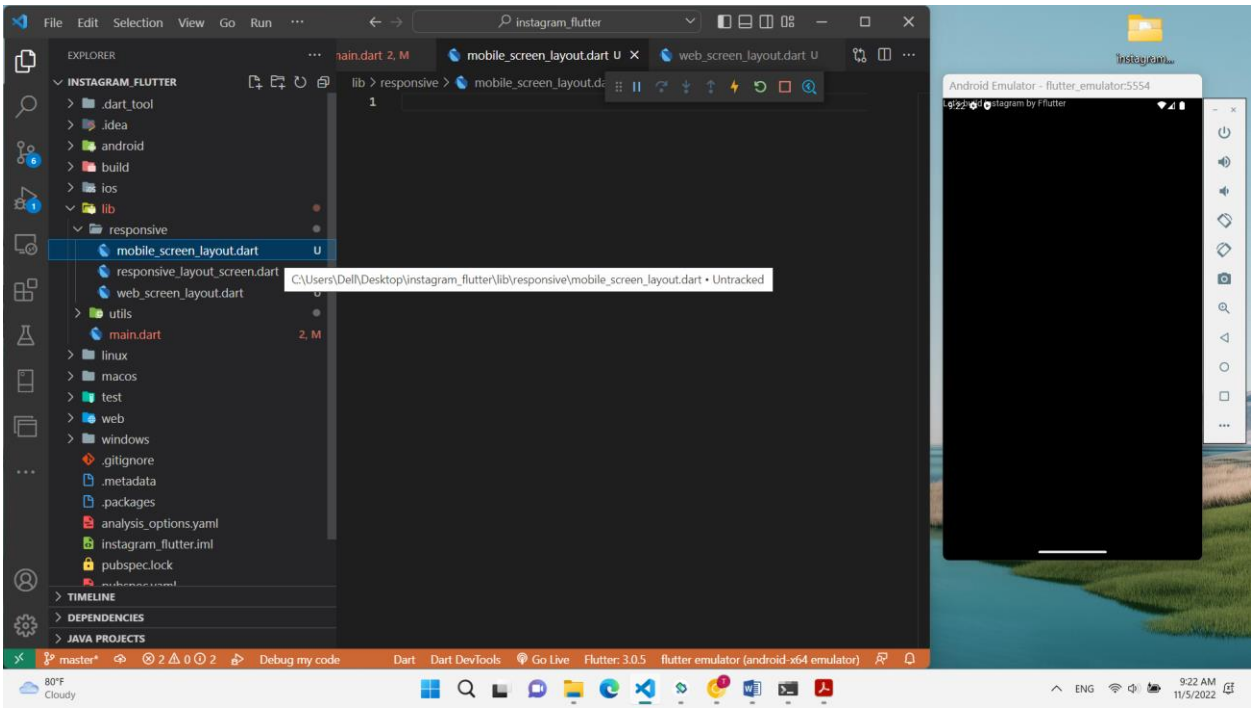
Bước 5. Tập tin dimensions.dart dùng để điều chỉnh kích thước cho các thiết bị



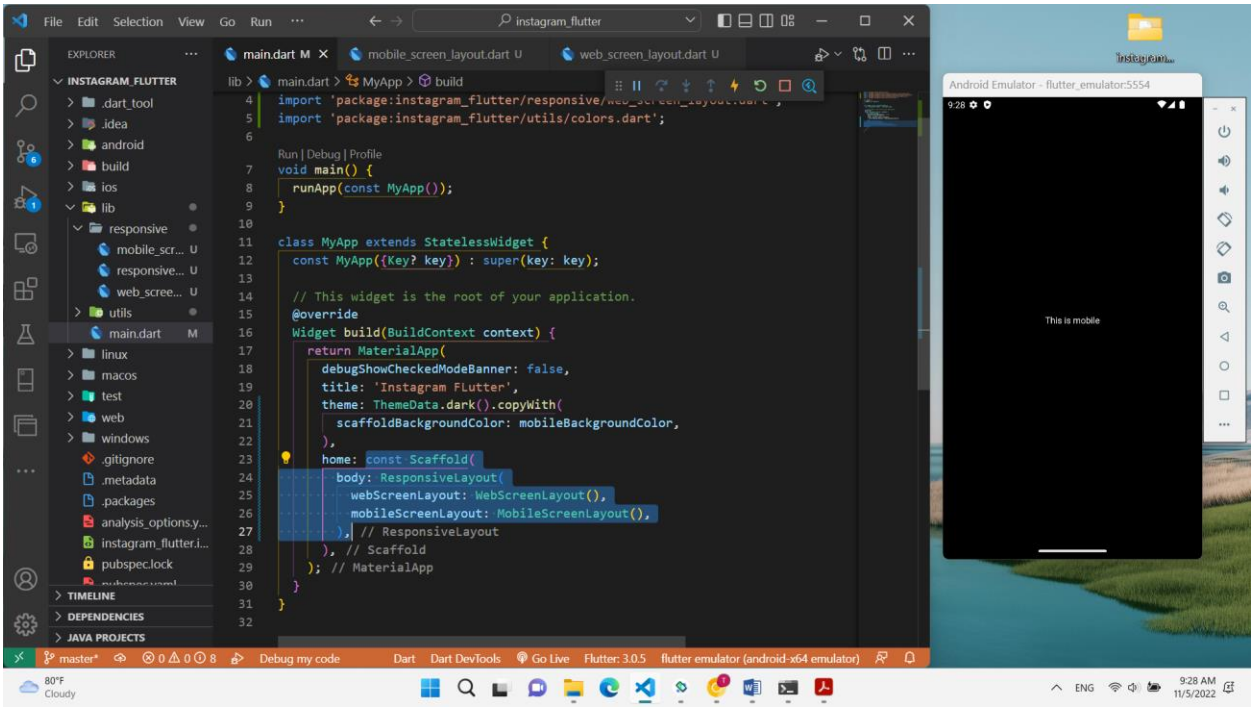
Bước 6. Hiệu chỉnh tập tin main.dart để thử responsive_layout



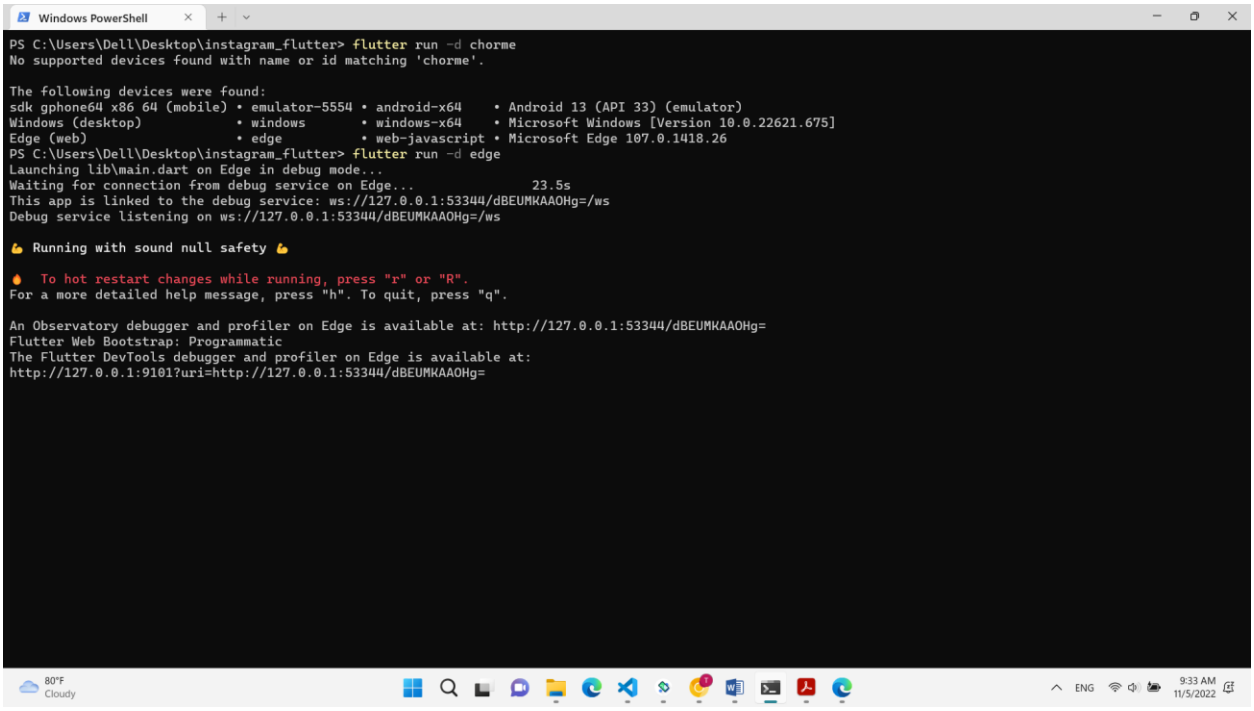
Bước 7. Trong lib/responsive tạo 2 tập tin mobile_screen_layout và web_screen_layout để tạo bố cục đáp ứng cho di động và web



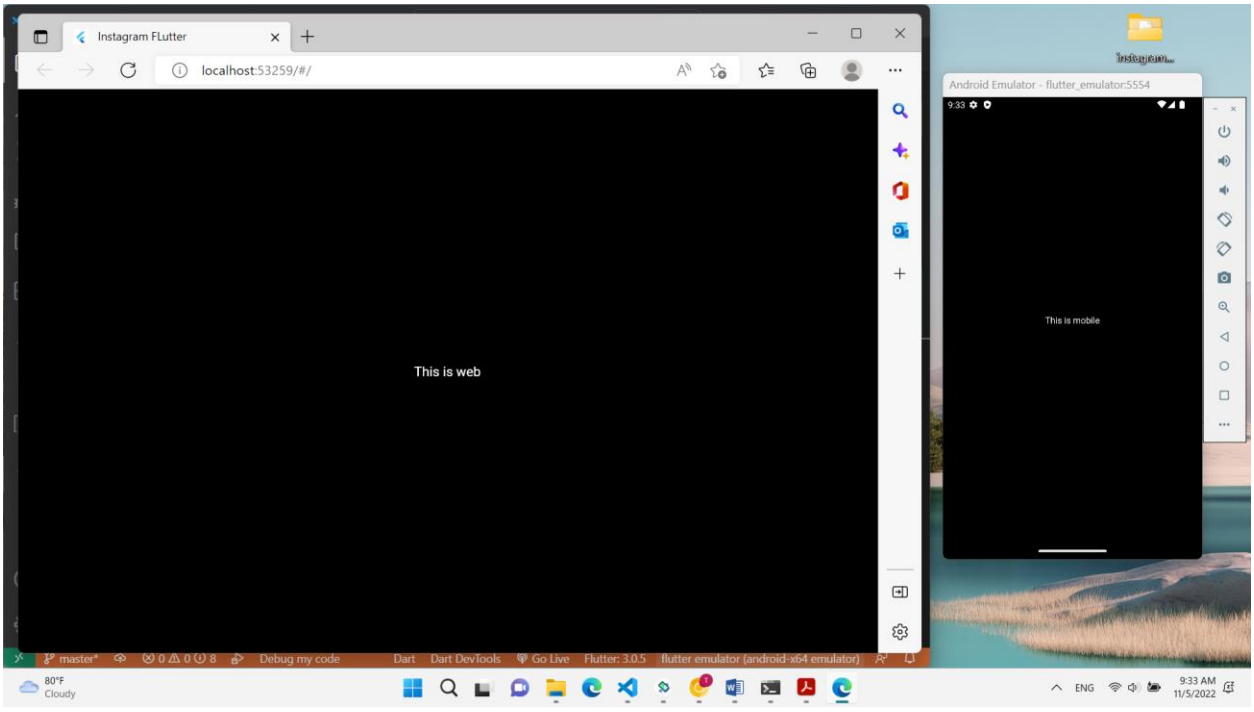
Bước 8. Test thử main.dart



Bước 9. Dùng lệnh flutter run –d edge để chạy trên web

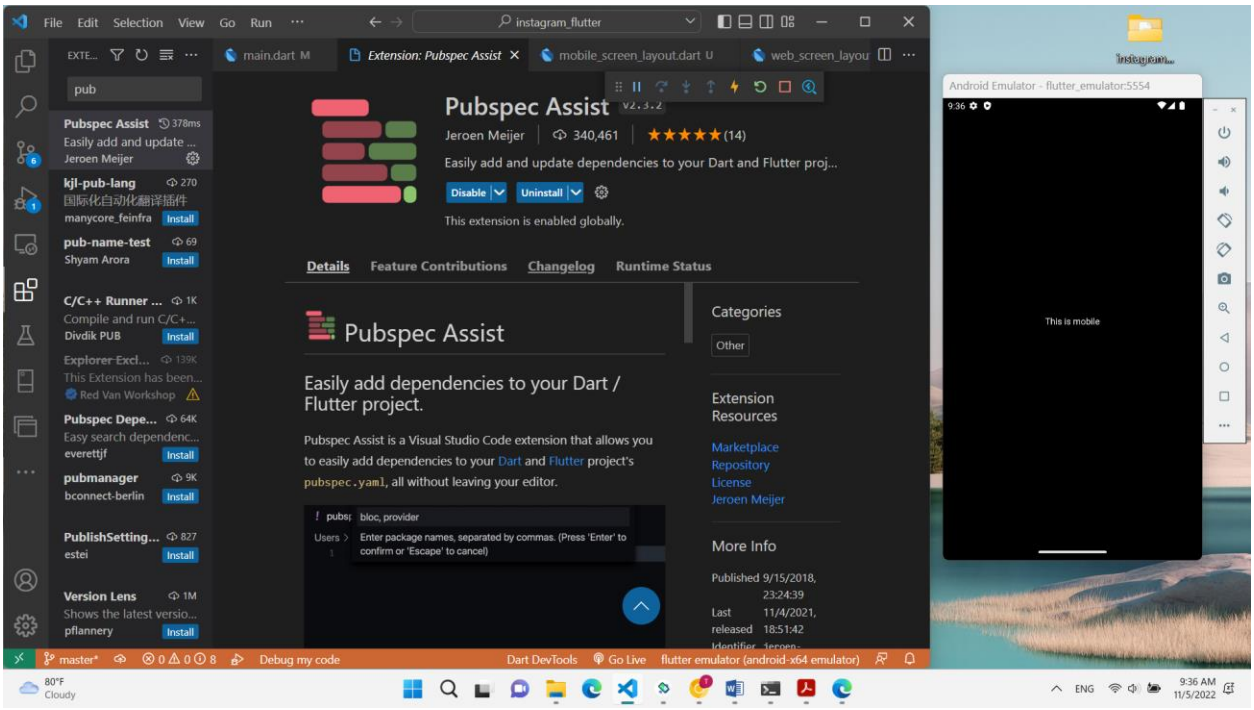


Kết quả

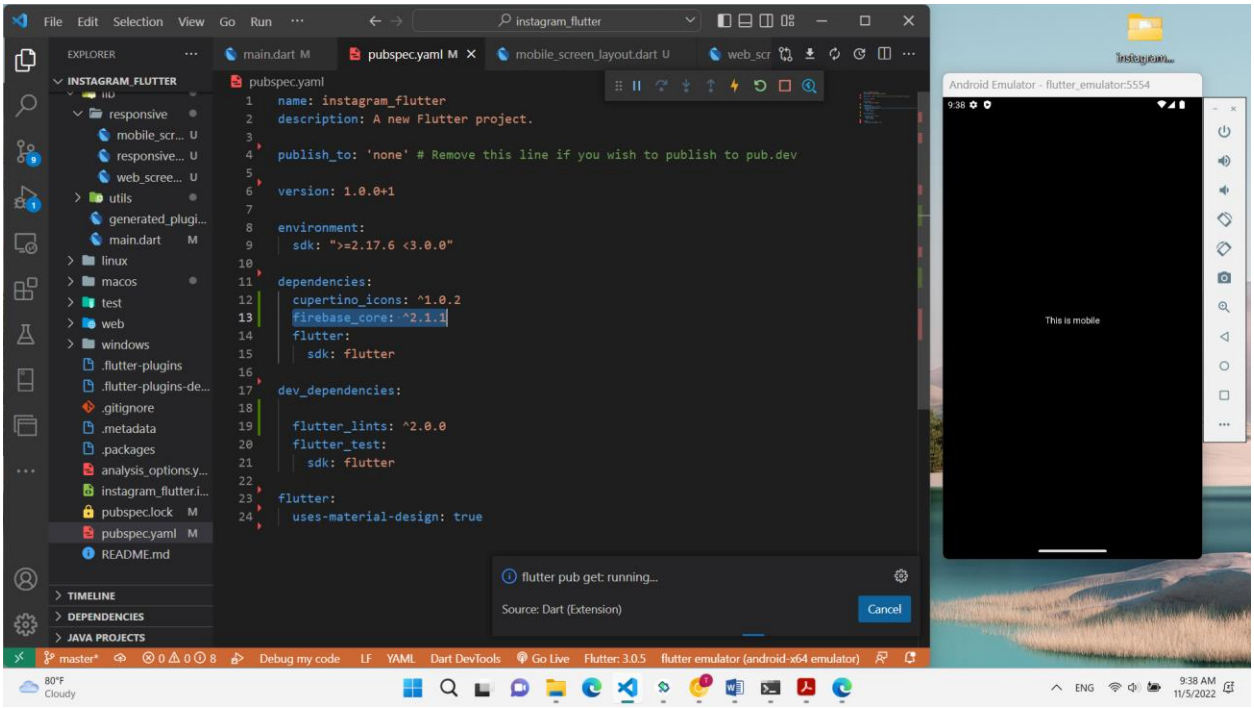


Bước 10. Cài đặt firebase

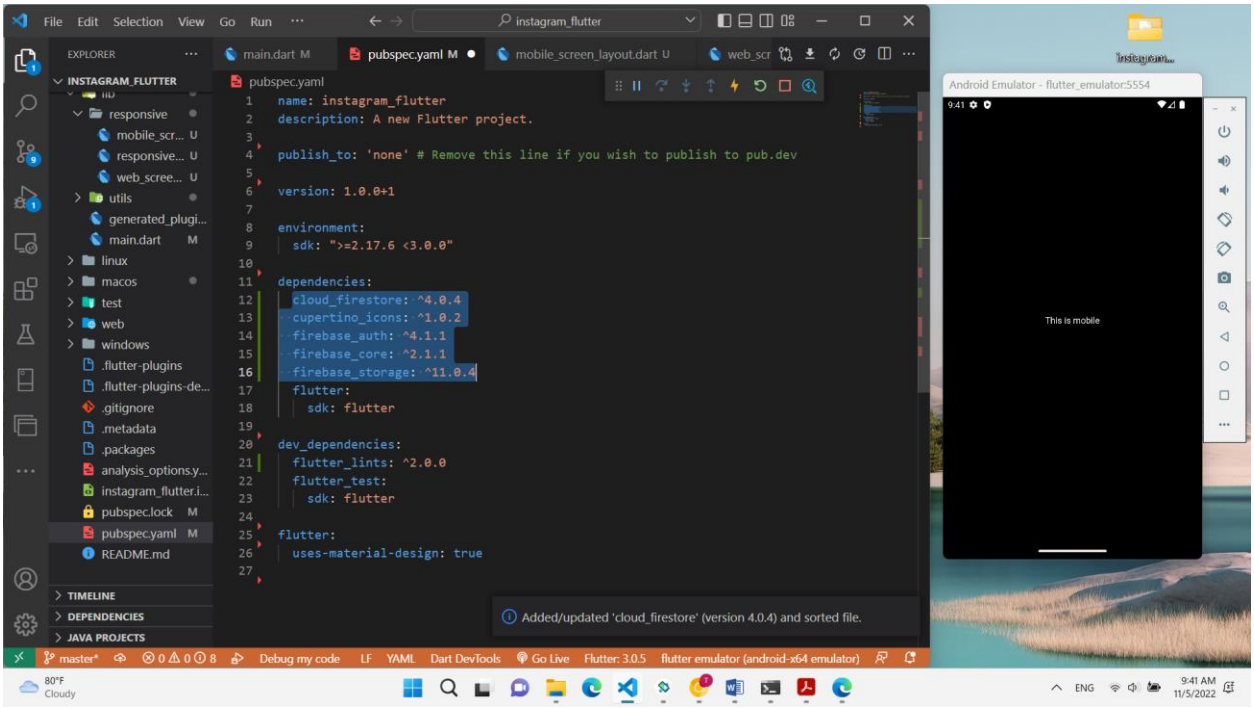
Cài đặt pubspec assit



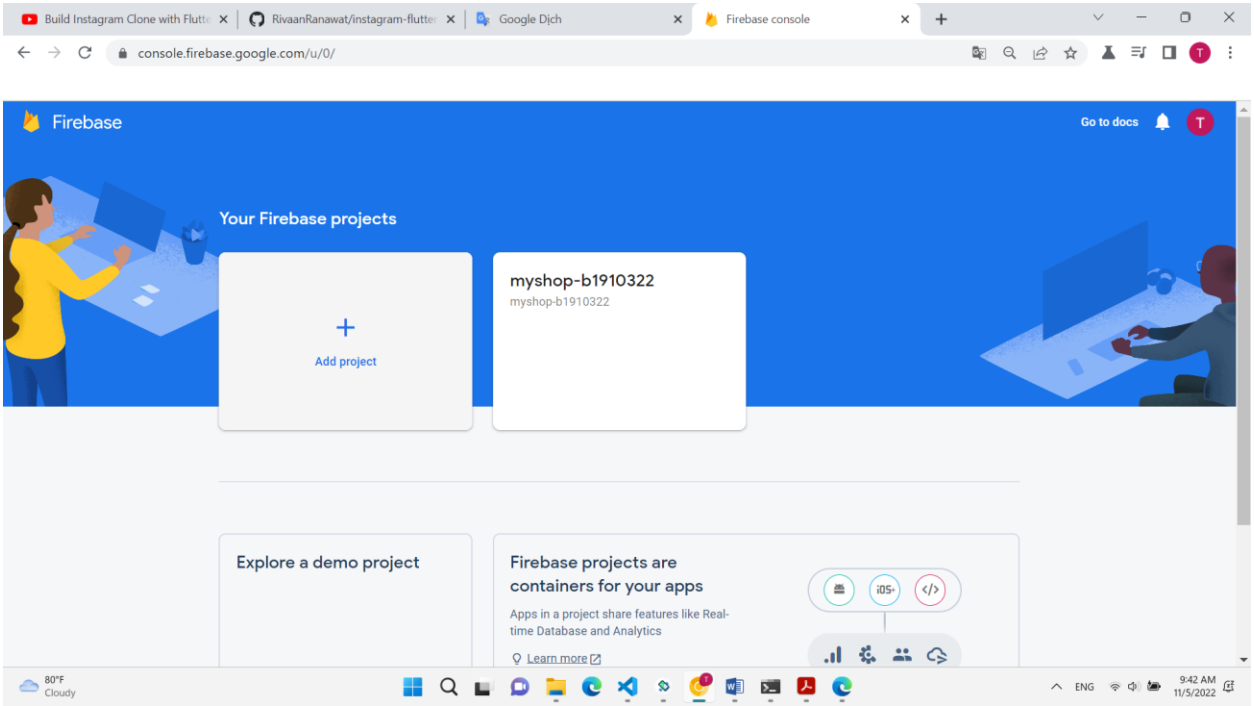
Cài đặt thành công firebase_score



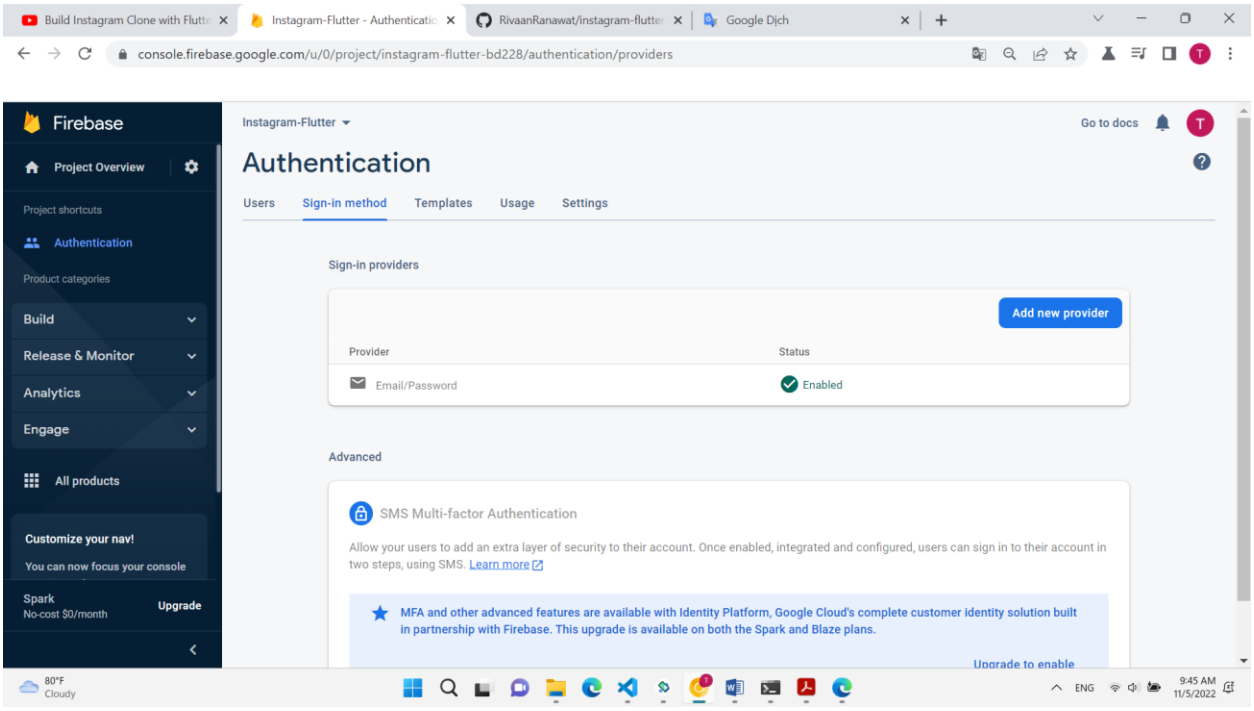
Cài đặt các dịch vụ firebase



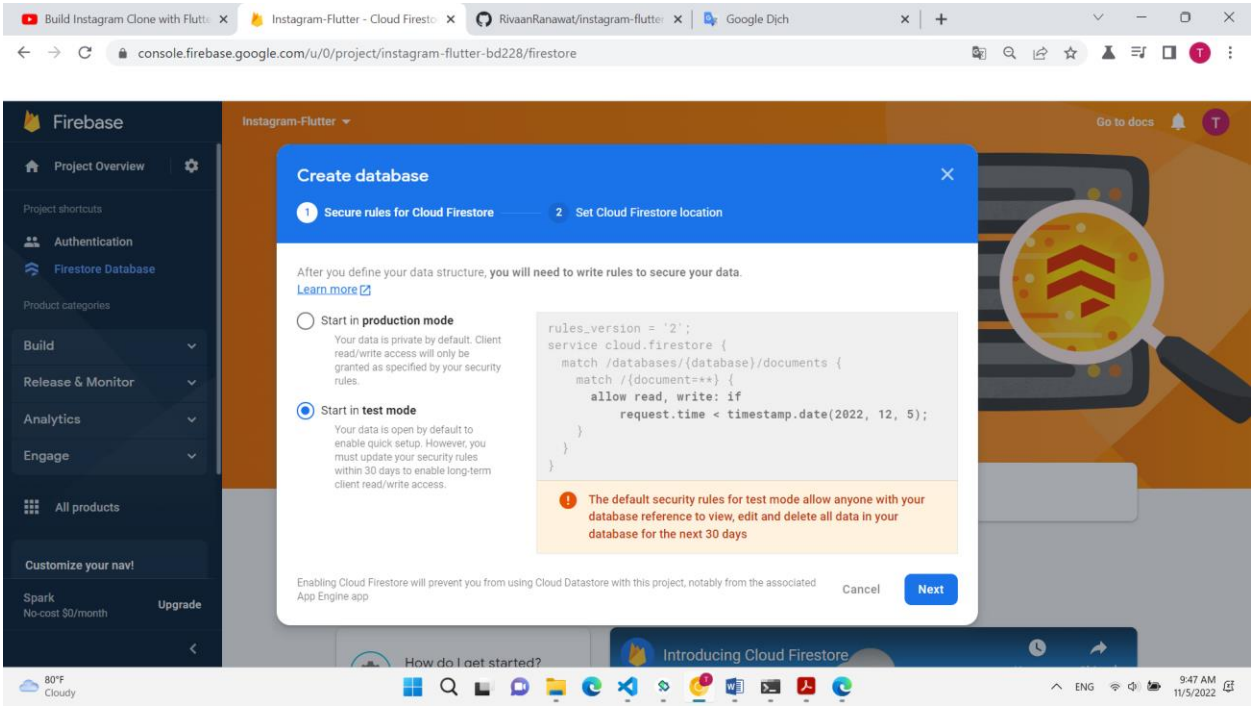
Bước 11. Tạo project mới

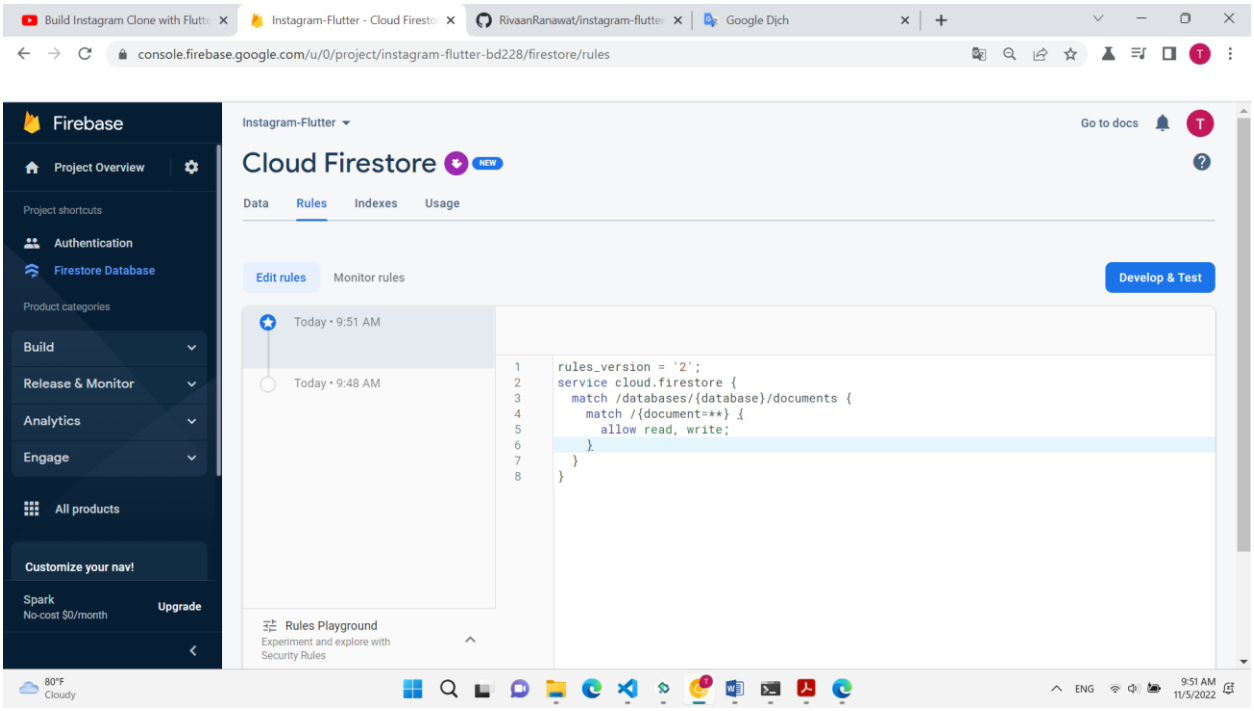


Bước 12. Sử dụng email/password

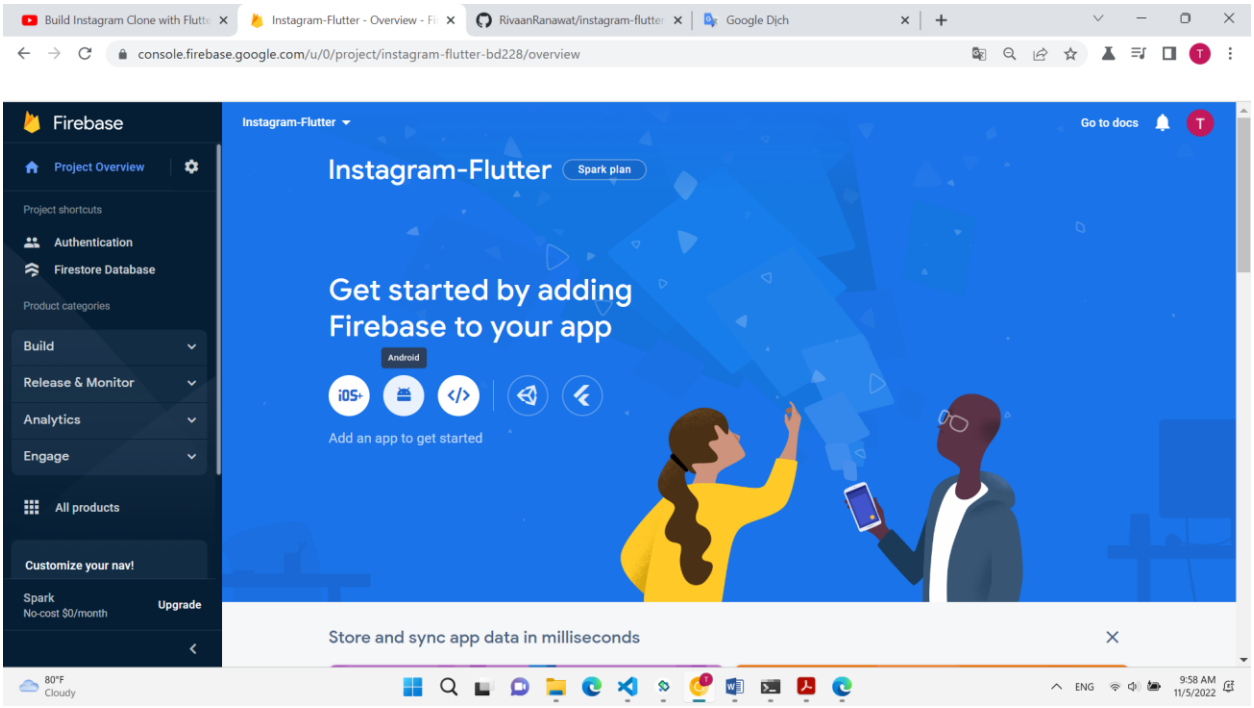


Bước 13. Tạo database

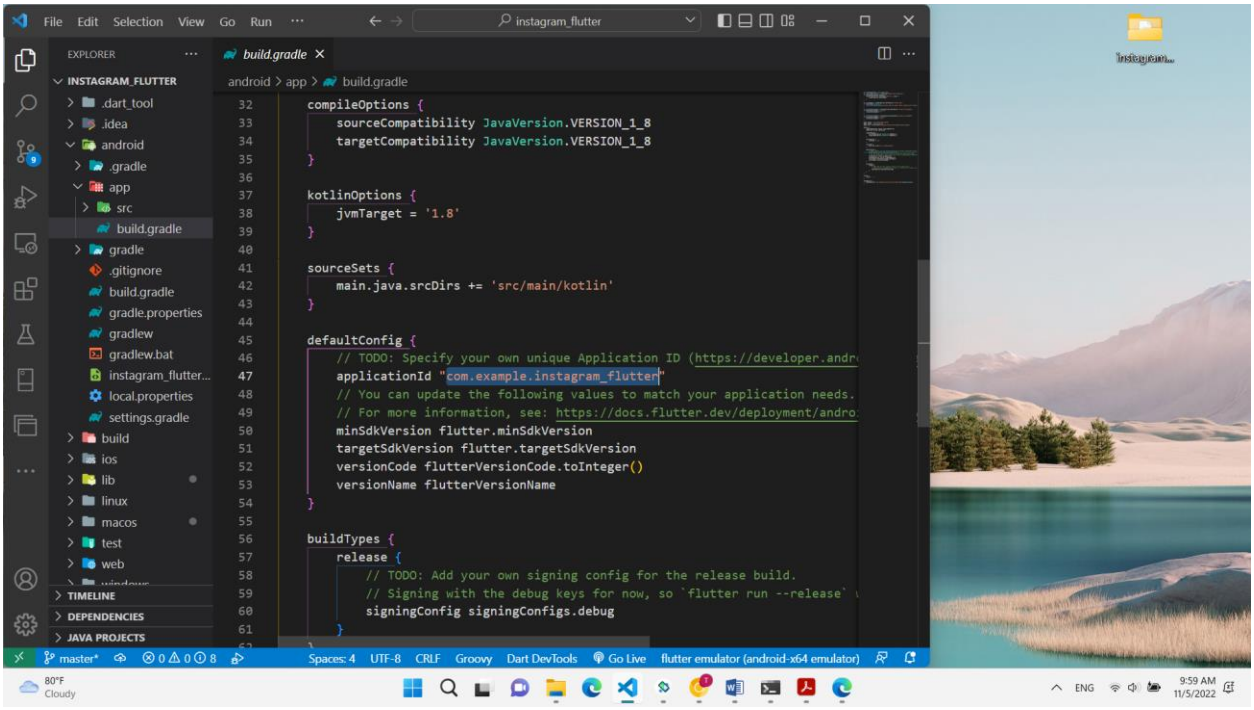


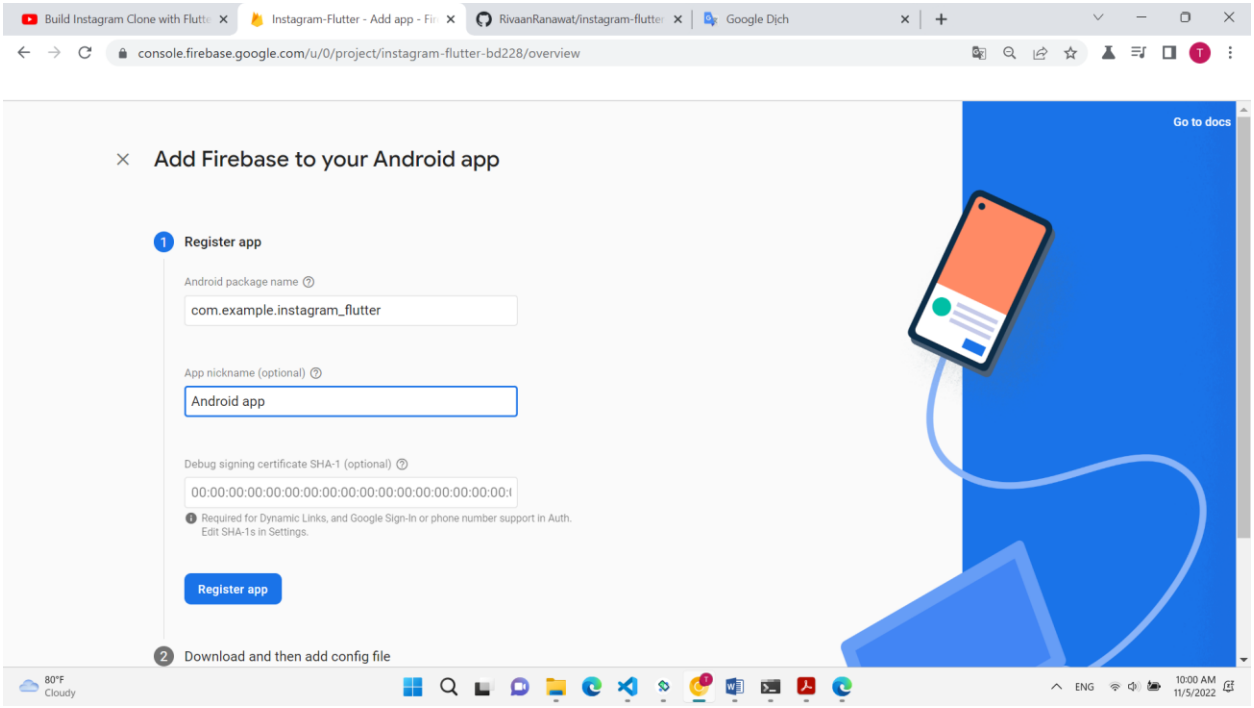


Bước 14. Cấu hình Firebase sử dụng cho android

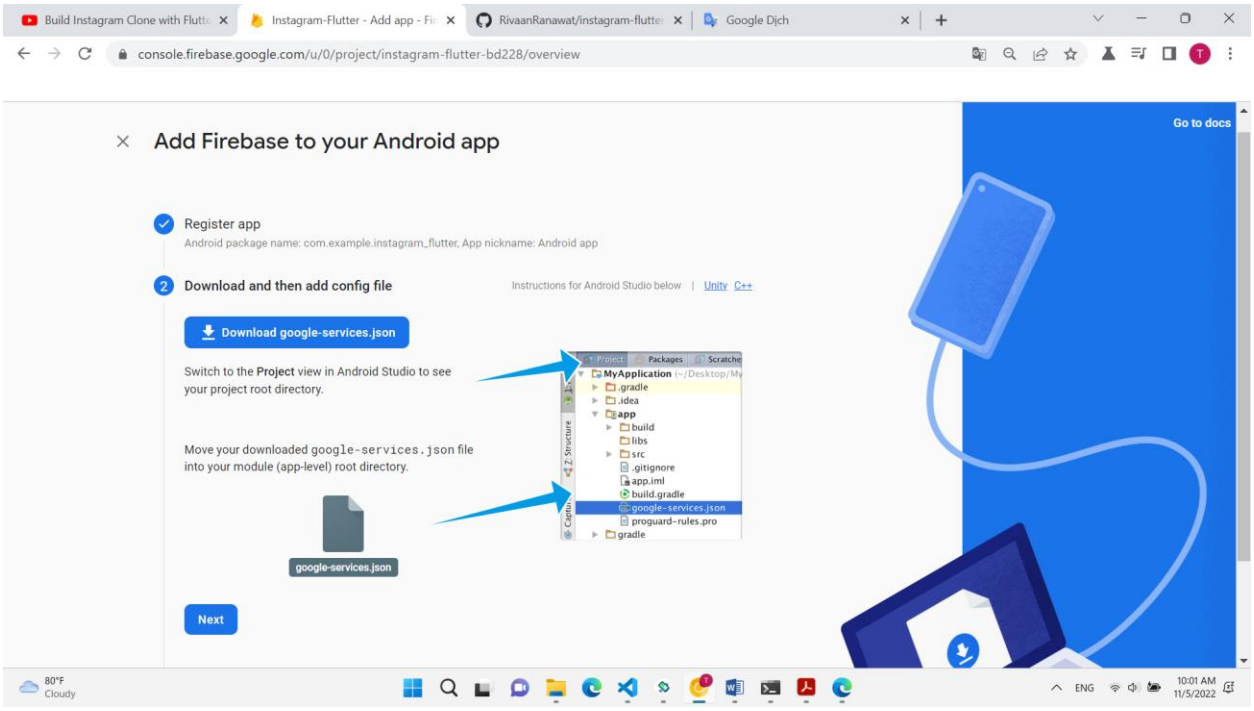


Vào tập tin sau để lấy thông tin

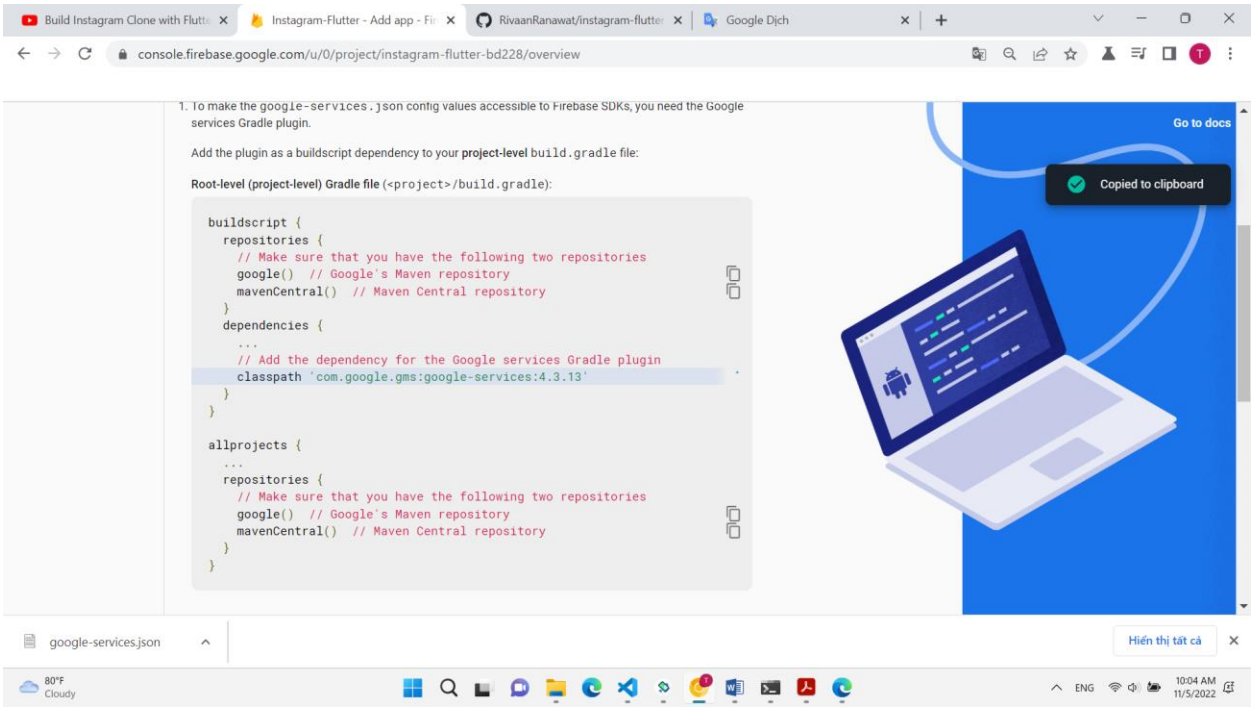


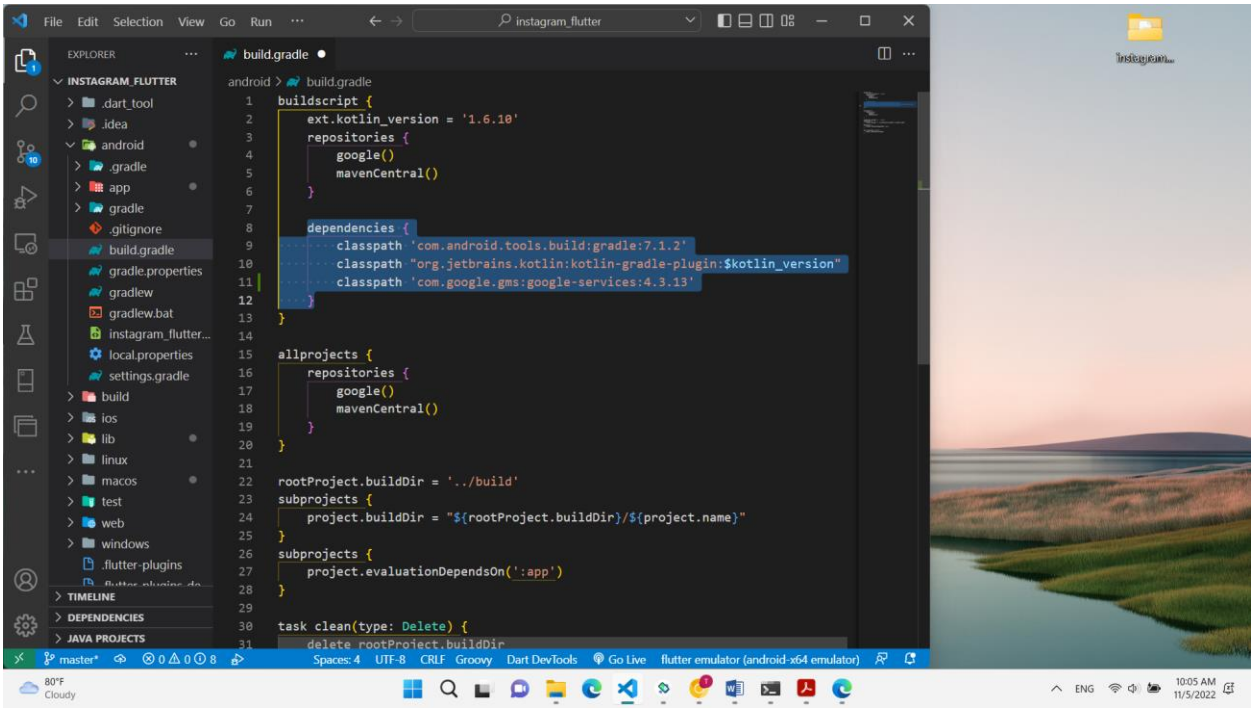


Bước 15. Download và copy vào thư mục như hướng dẫn

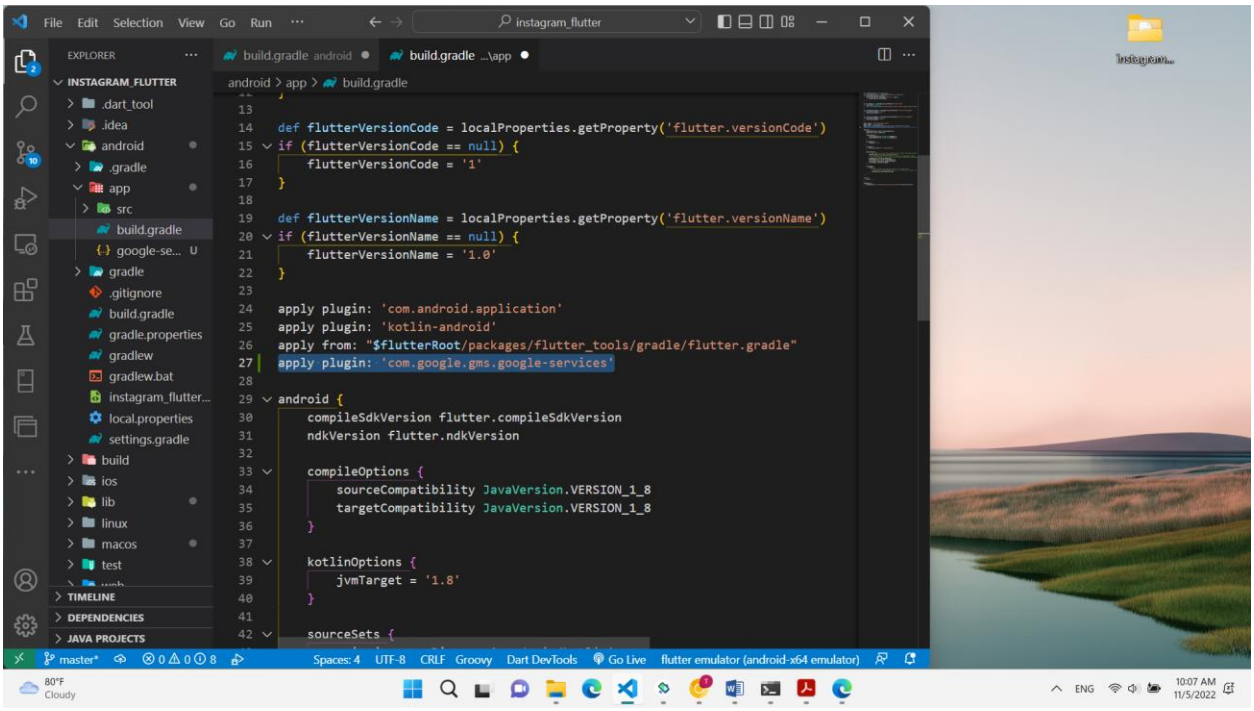


Copy dòng bên dưới và lưu vào

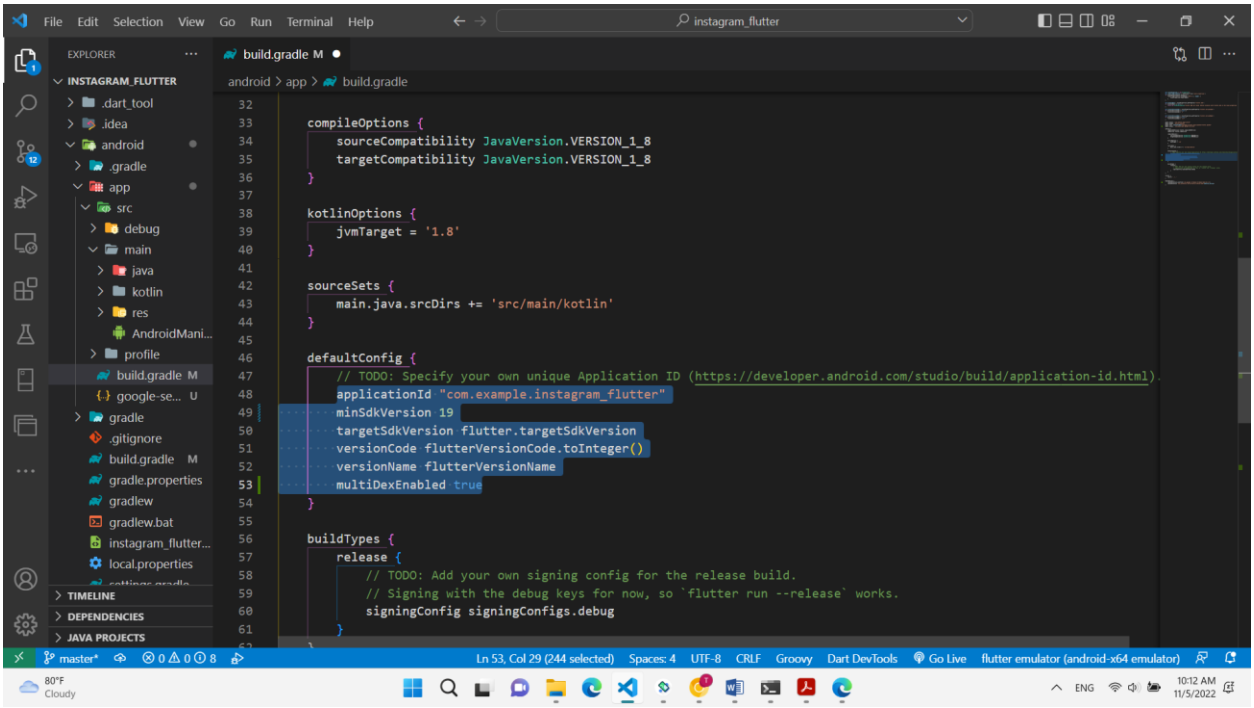




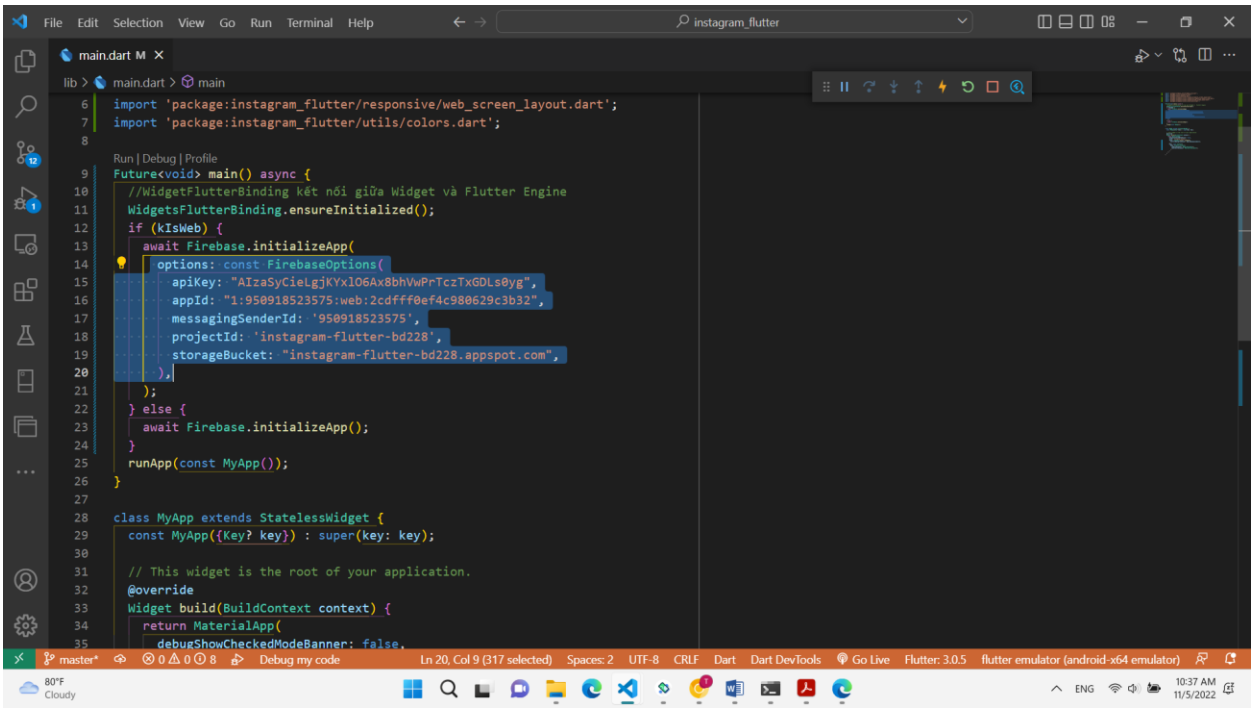
Thêm dòng sau

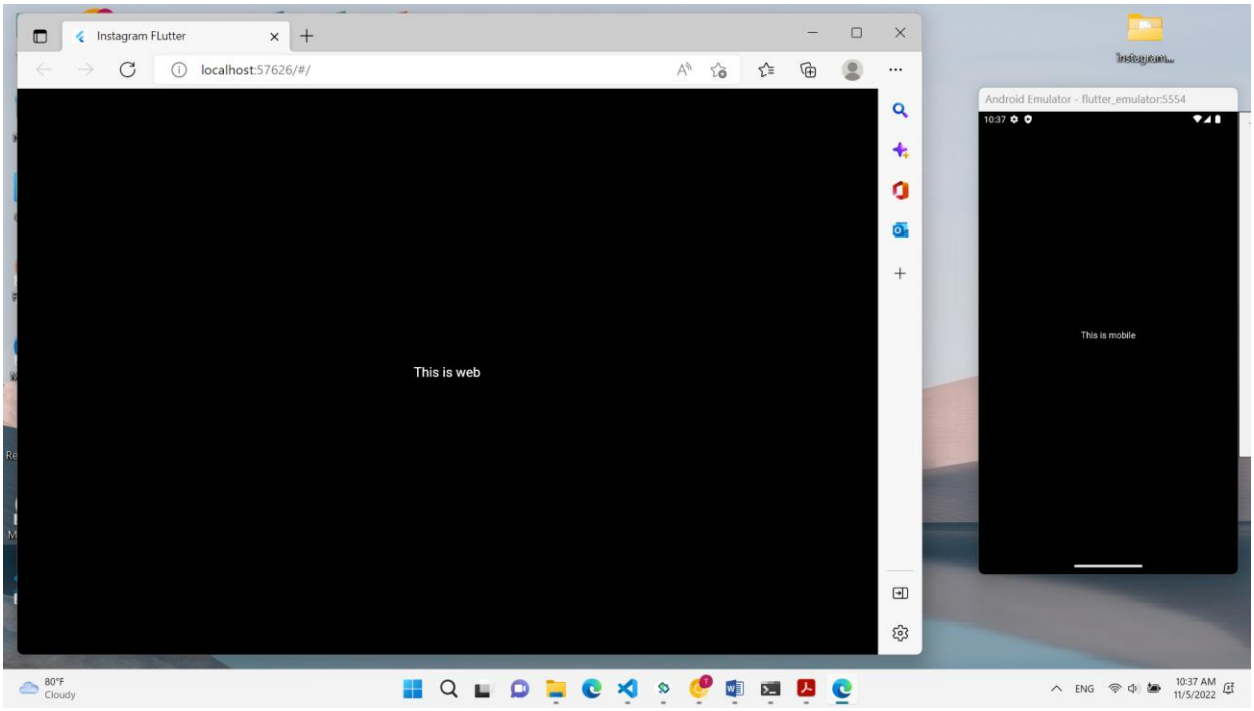


Chỉnh nội dung tập tin

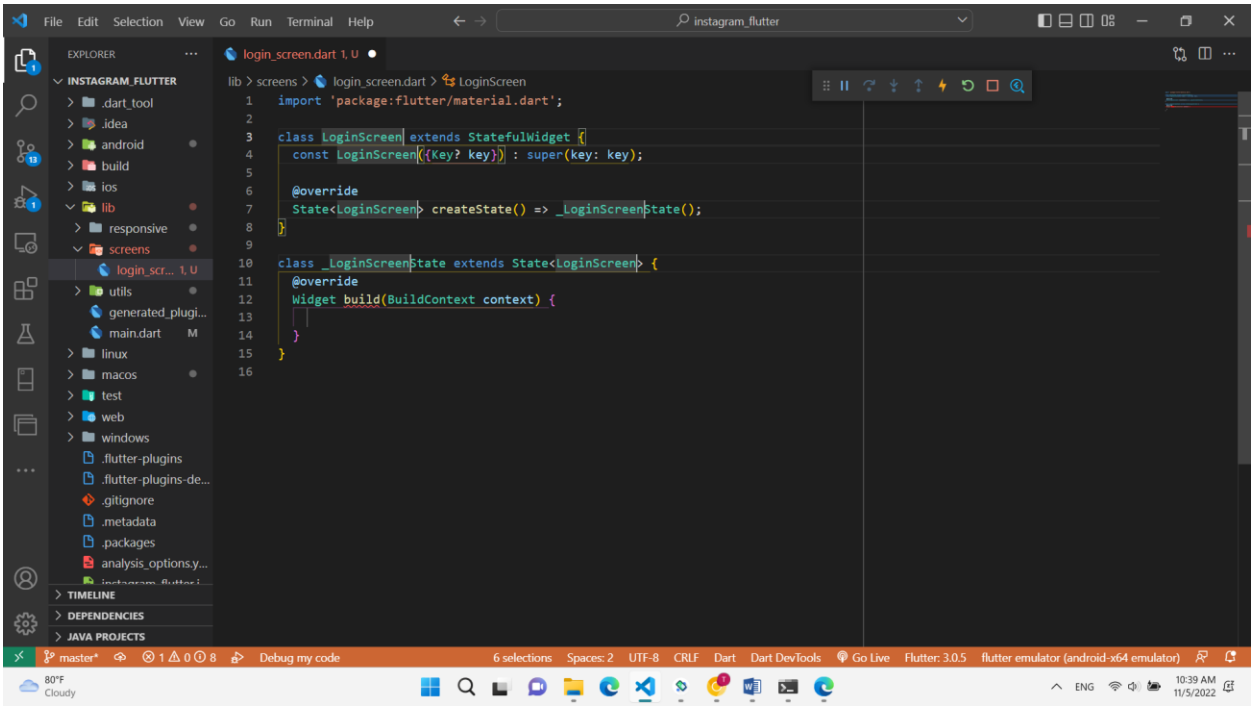


Cấu hình các thông số để kết nối web

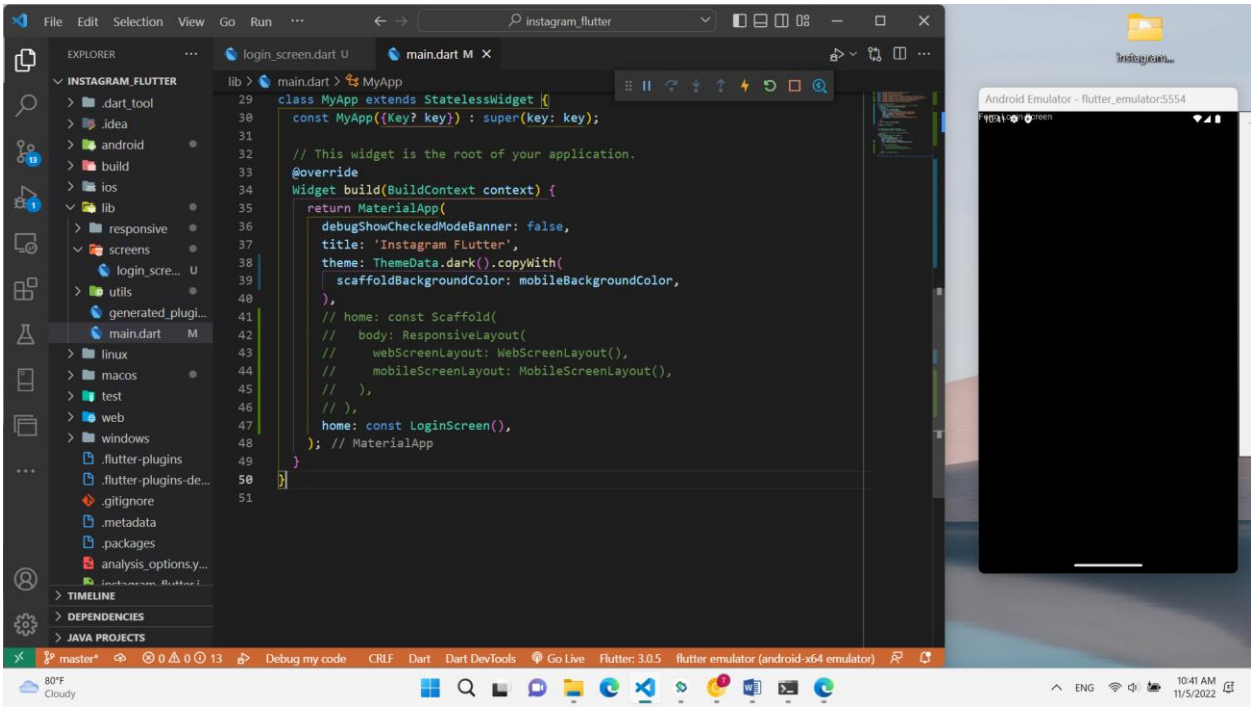




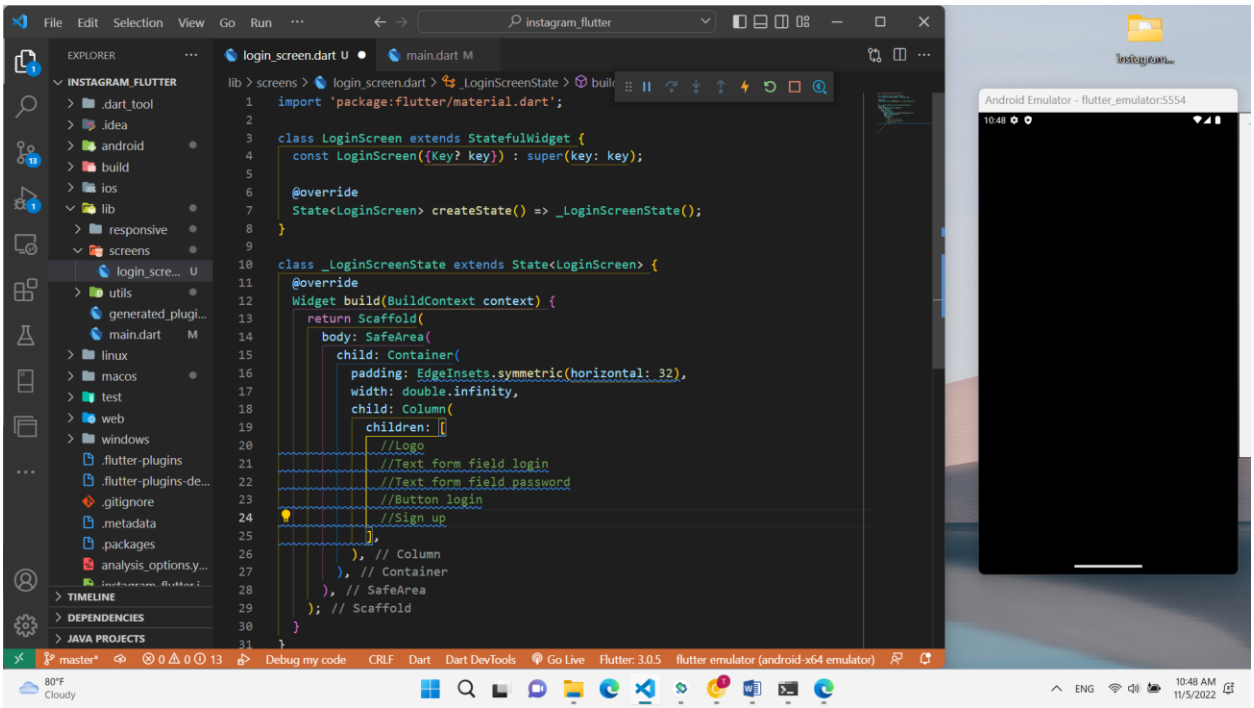
Bước 16. Tạo trang login



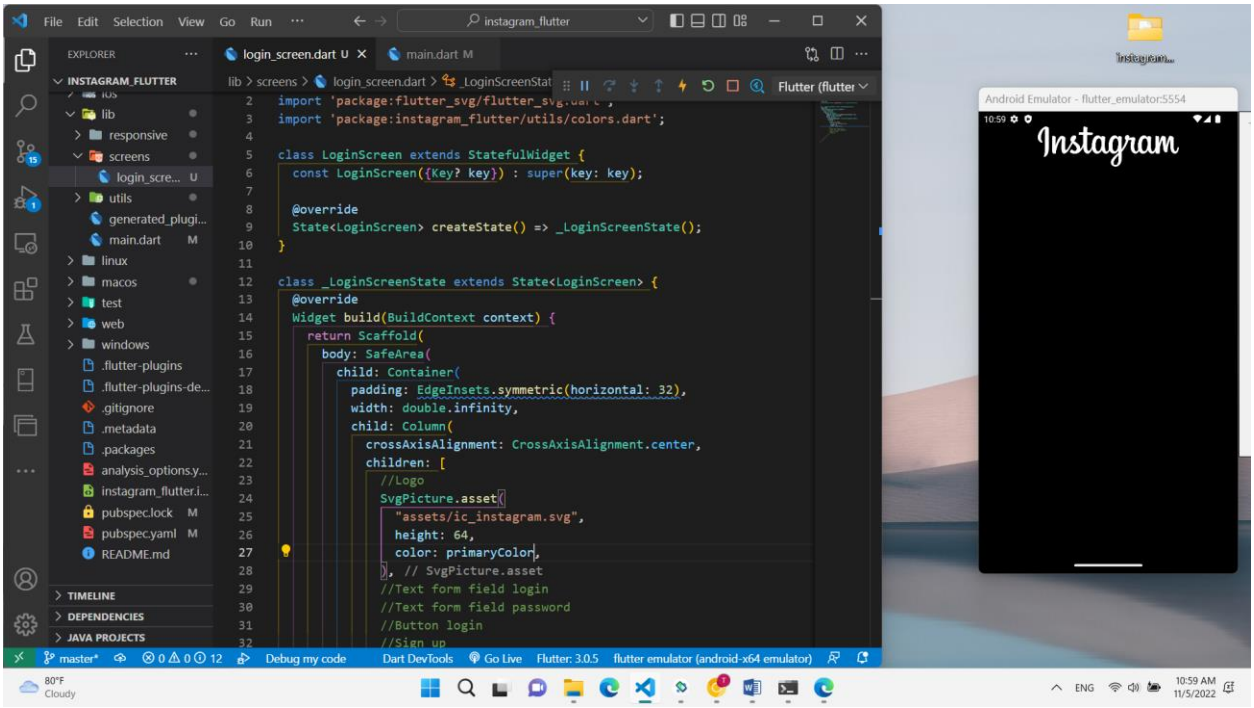
Test login in chạy tốt



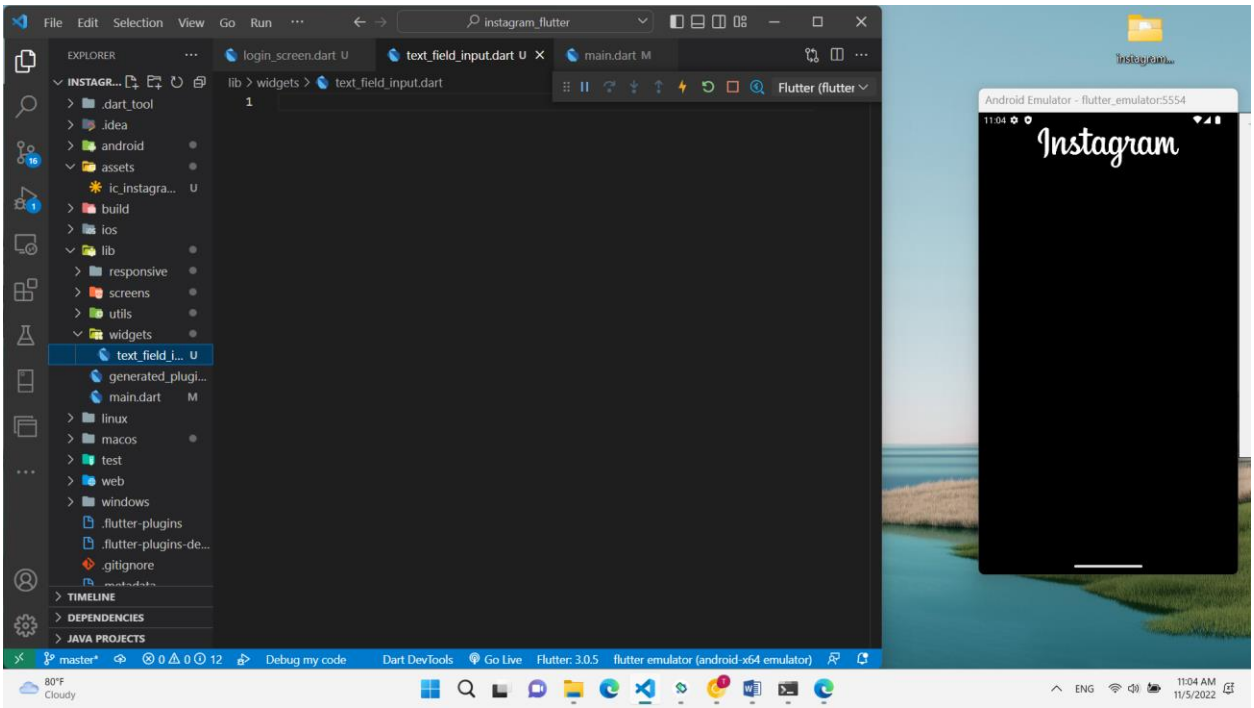
Ý tưởng xây dựng trang password chia thành các thành phần khác nhau nằm trong cột4



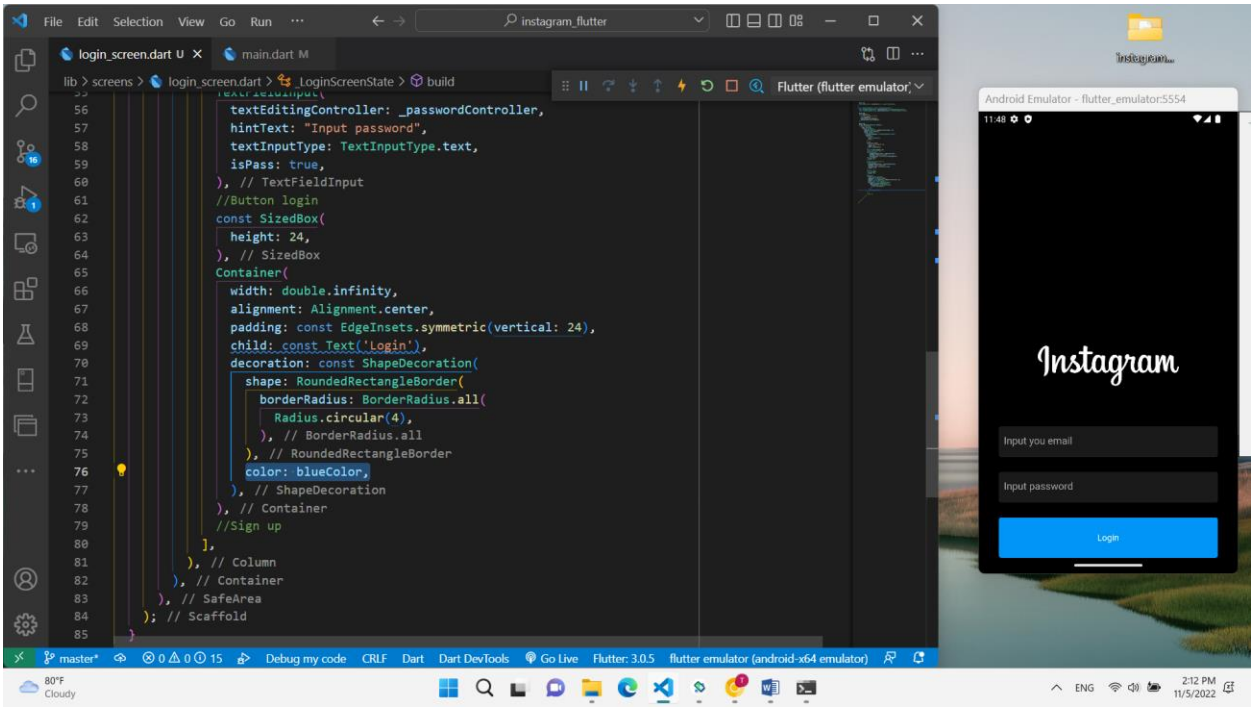
Tạo logo



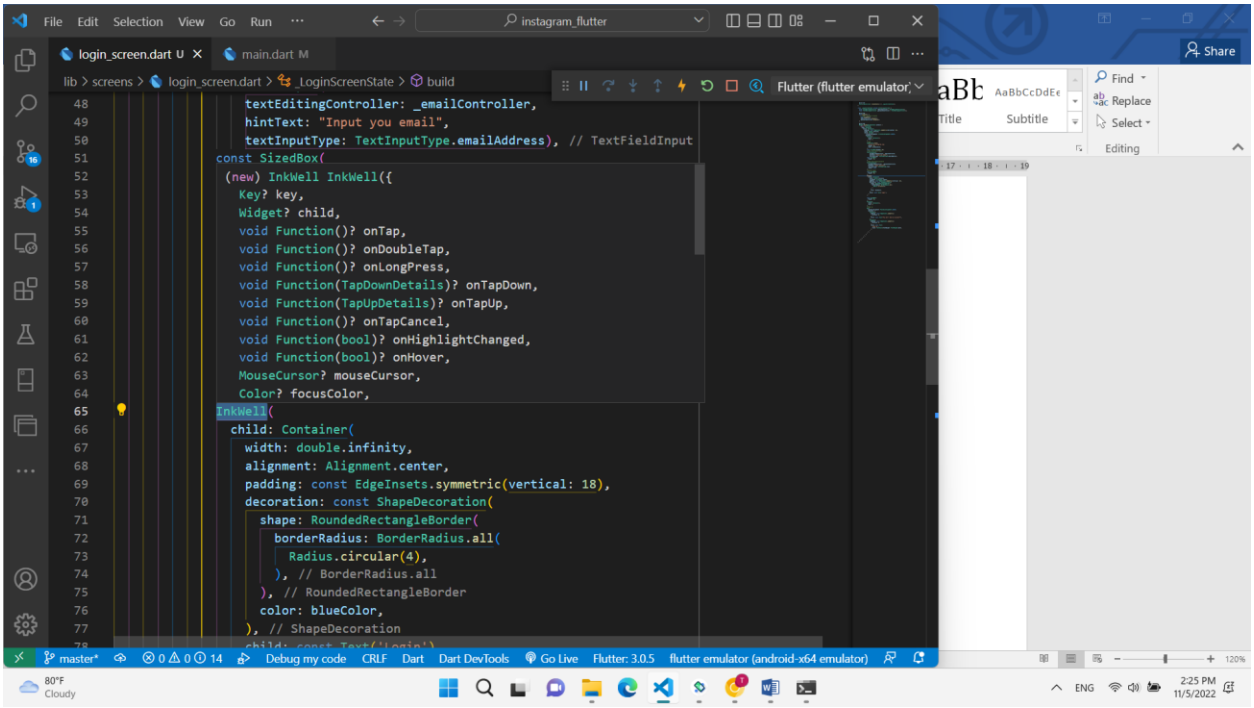
Tạo text_filed_input.dart



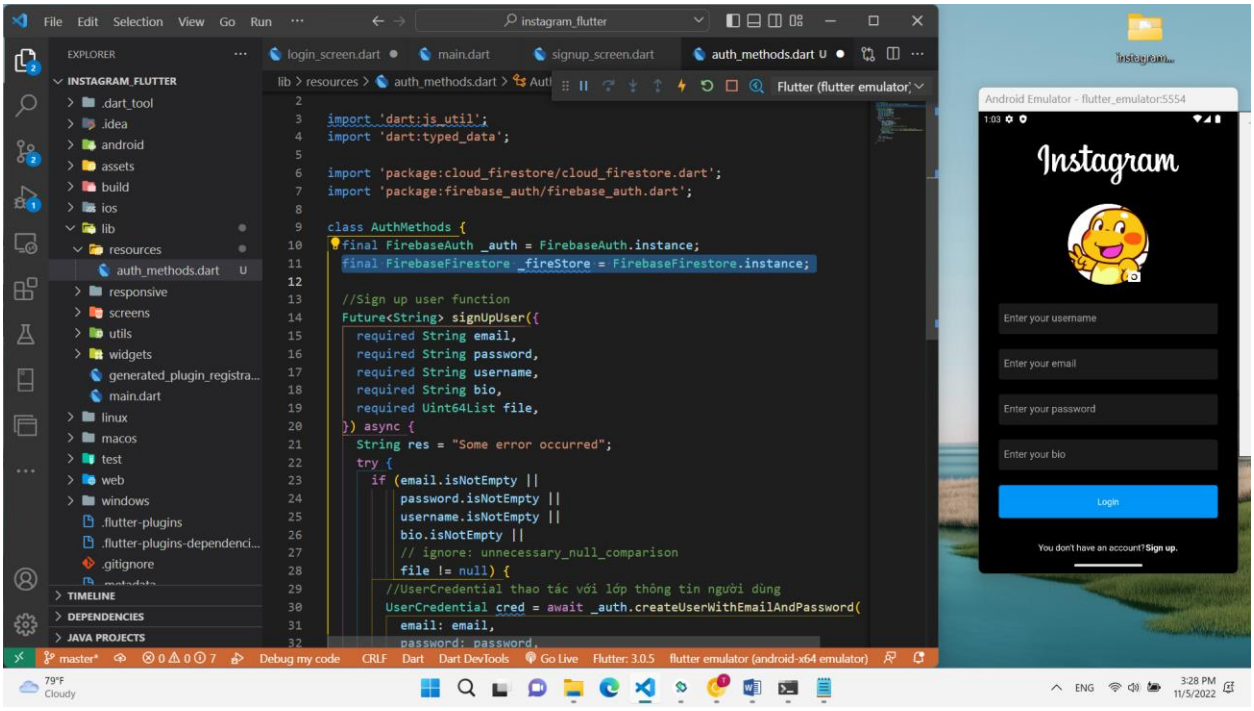
Bước 17. Thêm màu sắc cho nút login



Bước 18. Bao login bởi

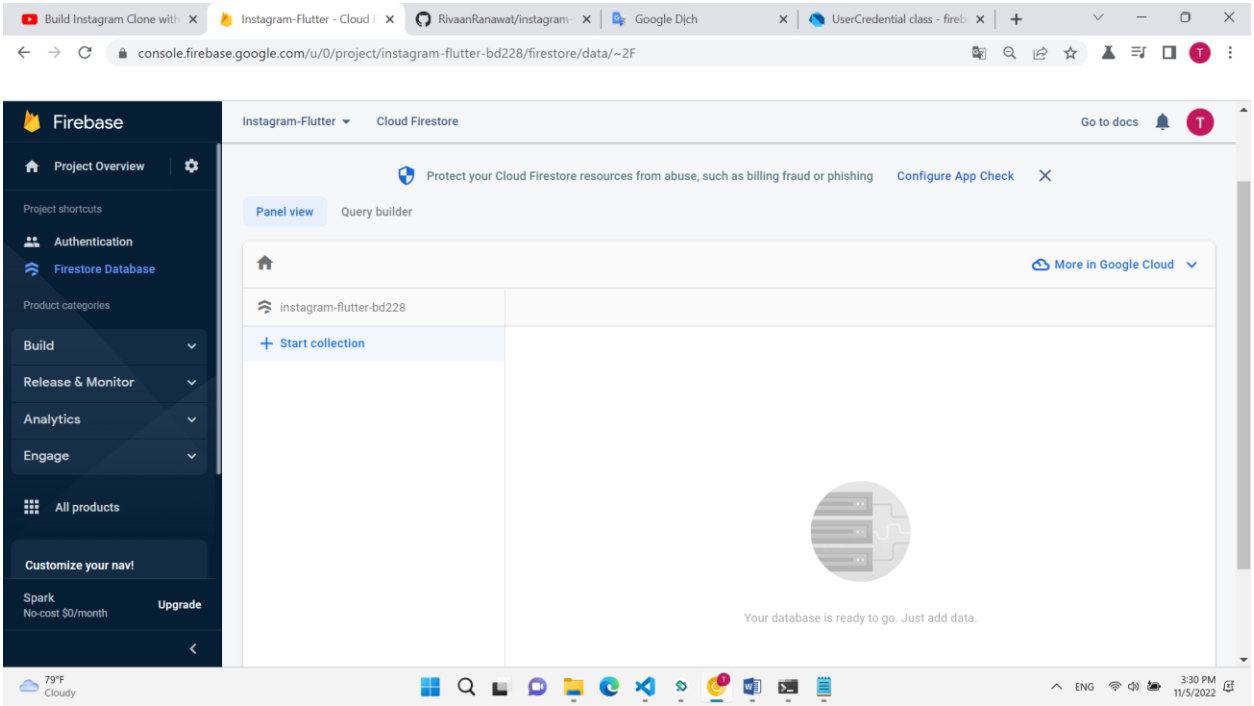


Bước 19. Xây dựng trang Sign up



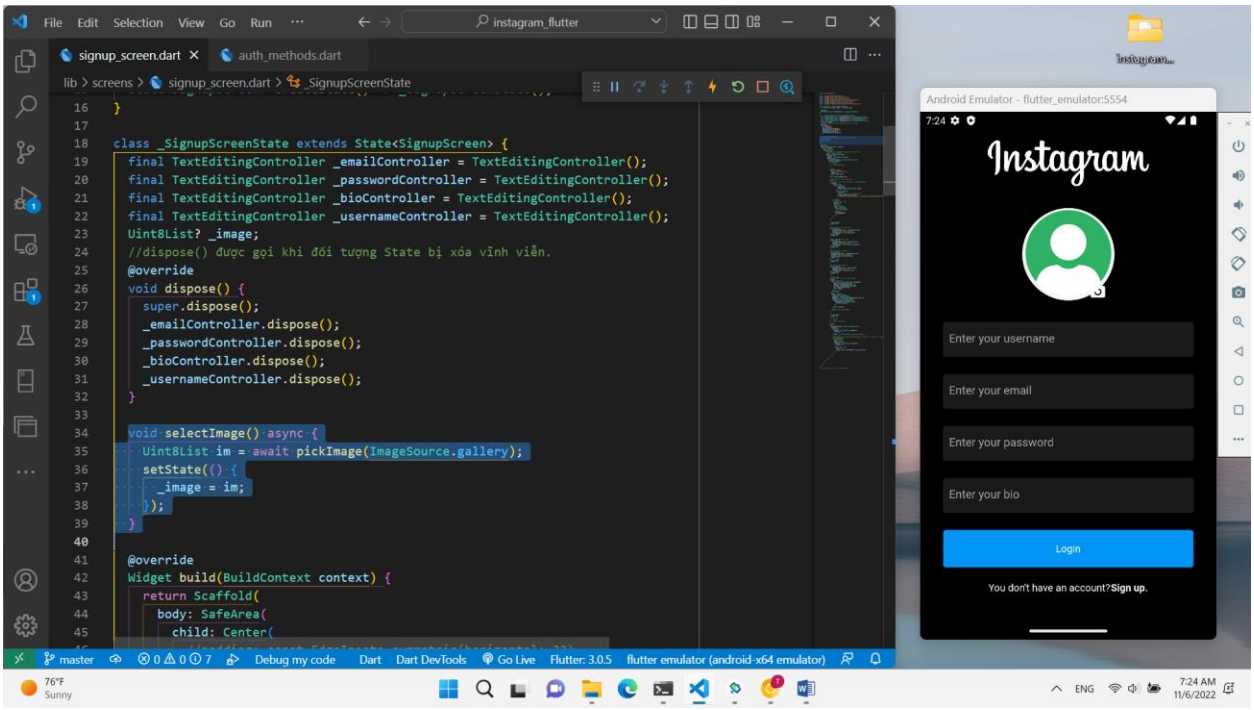
Thêm FirebaseFirestore để thêm users vào database

Bước 20. Tạo collection mới tên là users



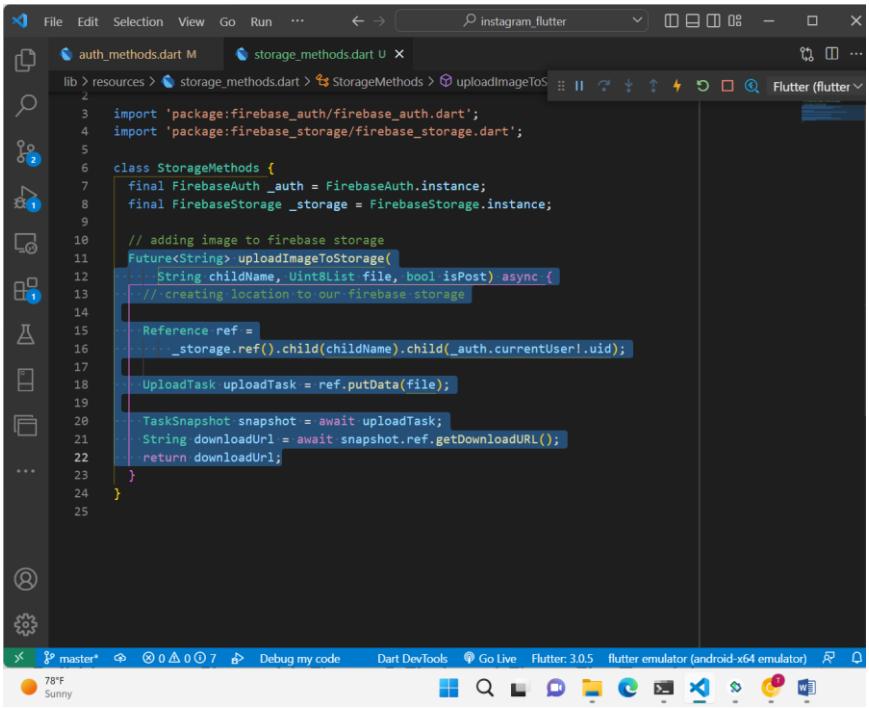
Bước 21. Viết hàm để load hình ảnh

Trong lib/utils tạo utils.dart để chứa các hàm

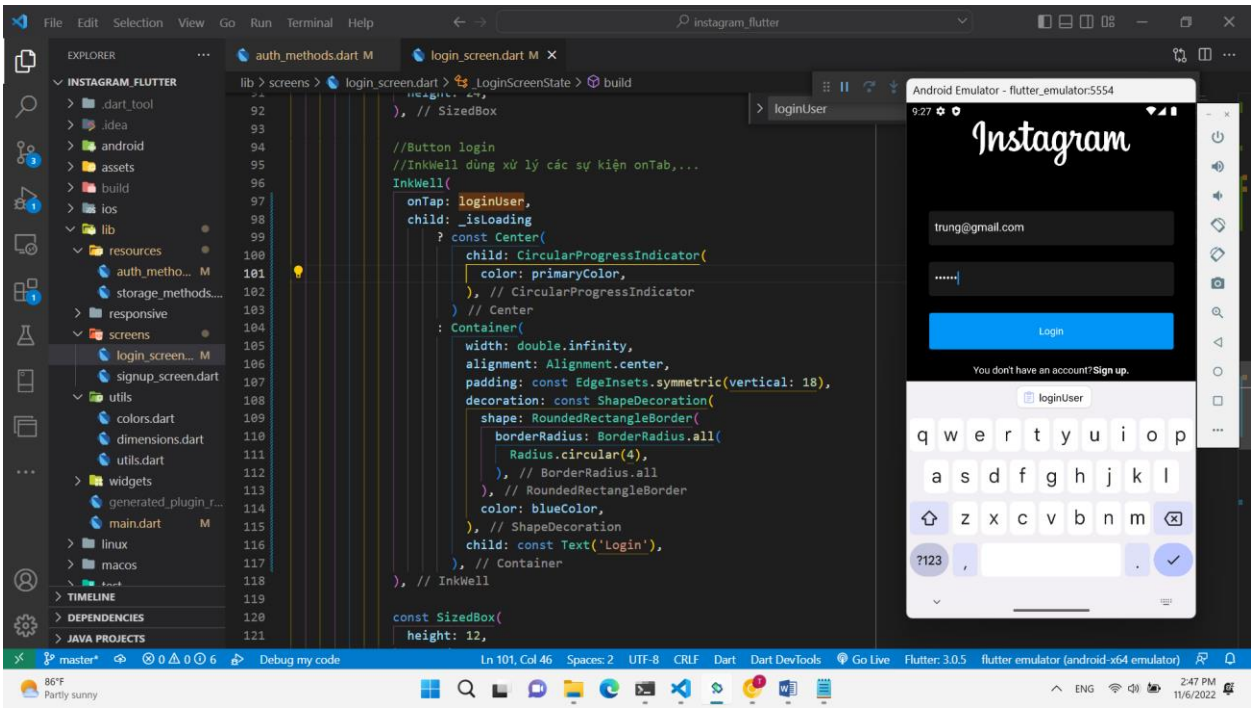


Bước 22. Hàm để upload và download ảnh

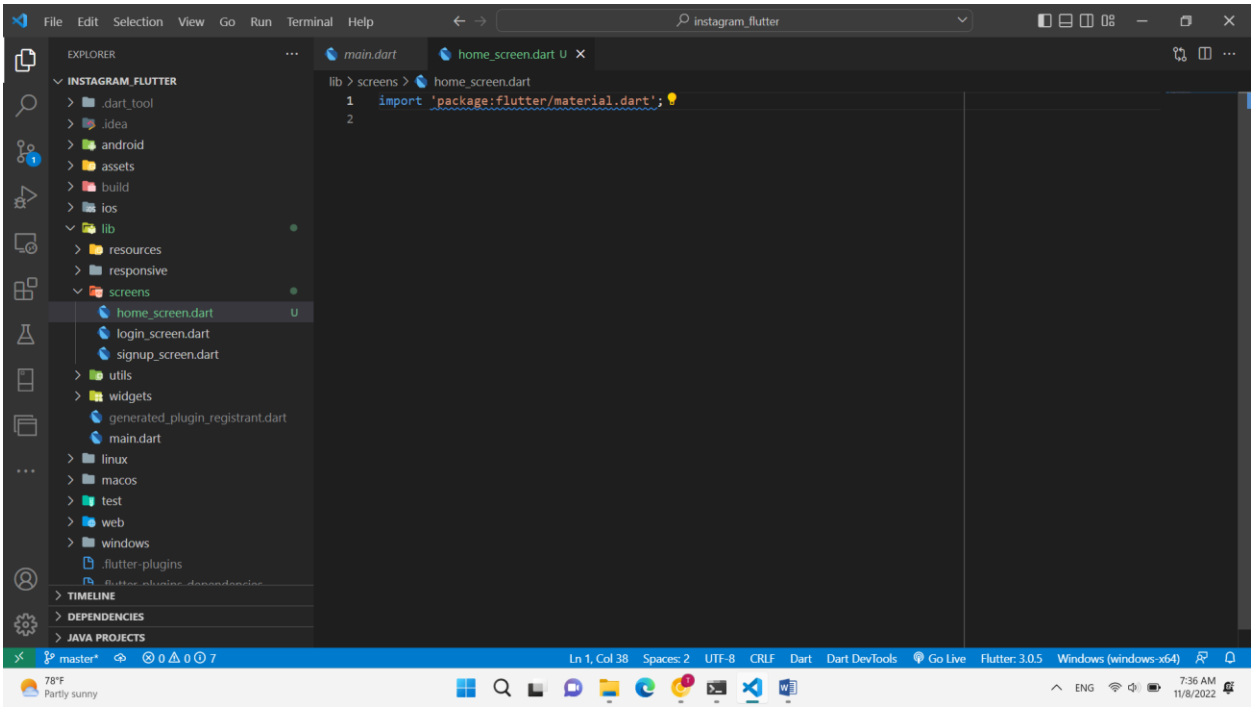
***Lưu ý chỉnh sửa các rule để được phép upload và download

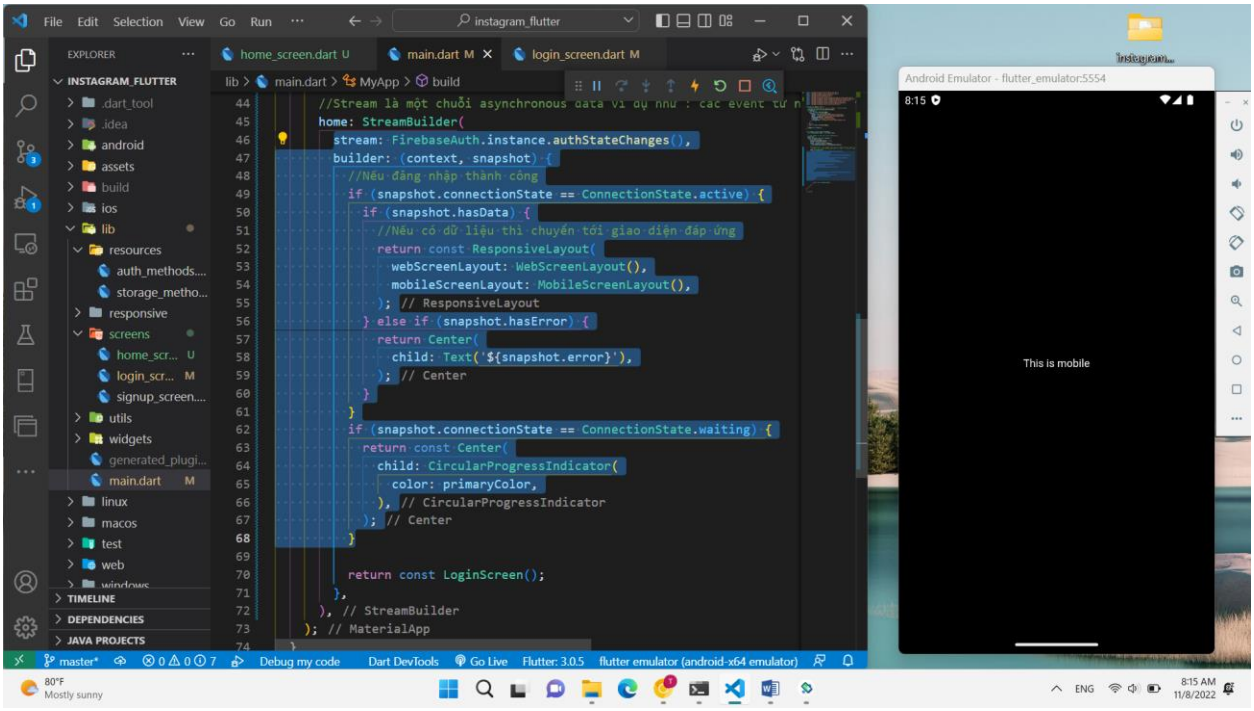


Bước 23. Xây dựng chức năng đăng nhập



Bước 24. Xác thực trạng thái người dùng

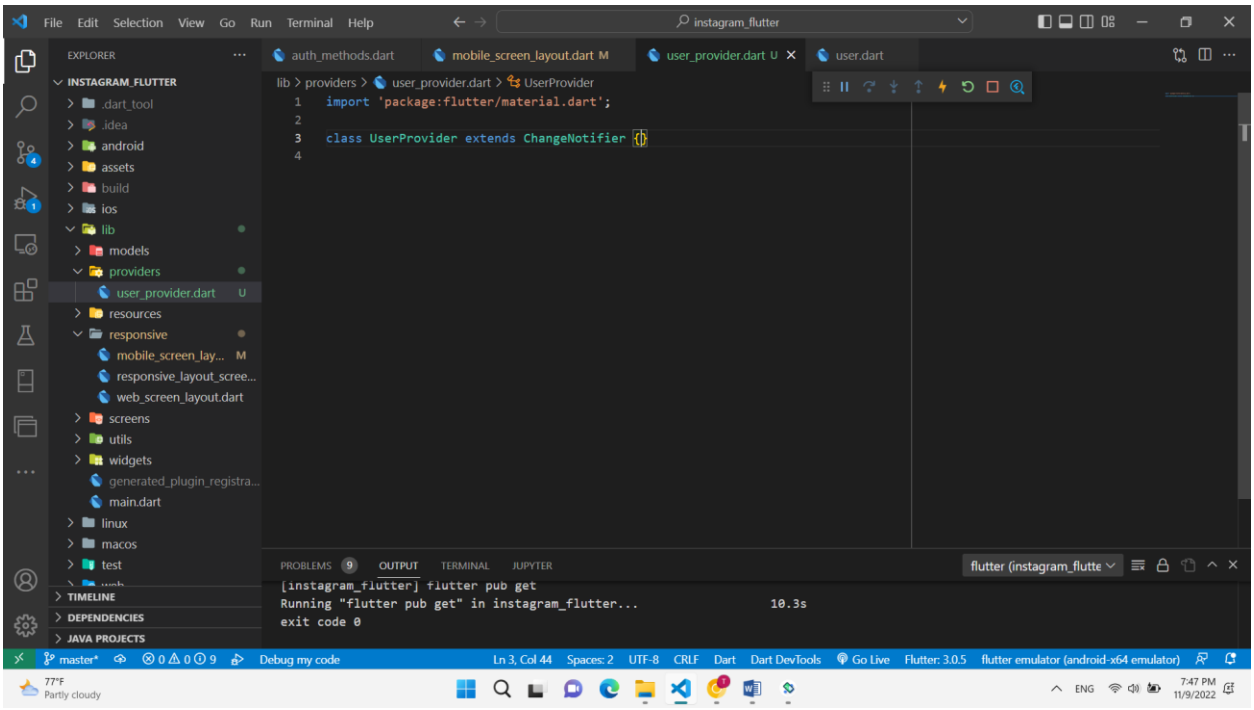




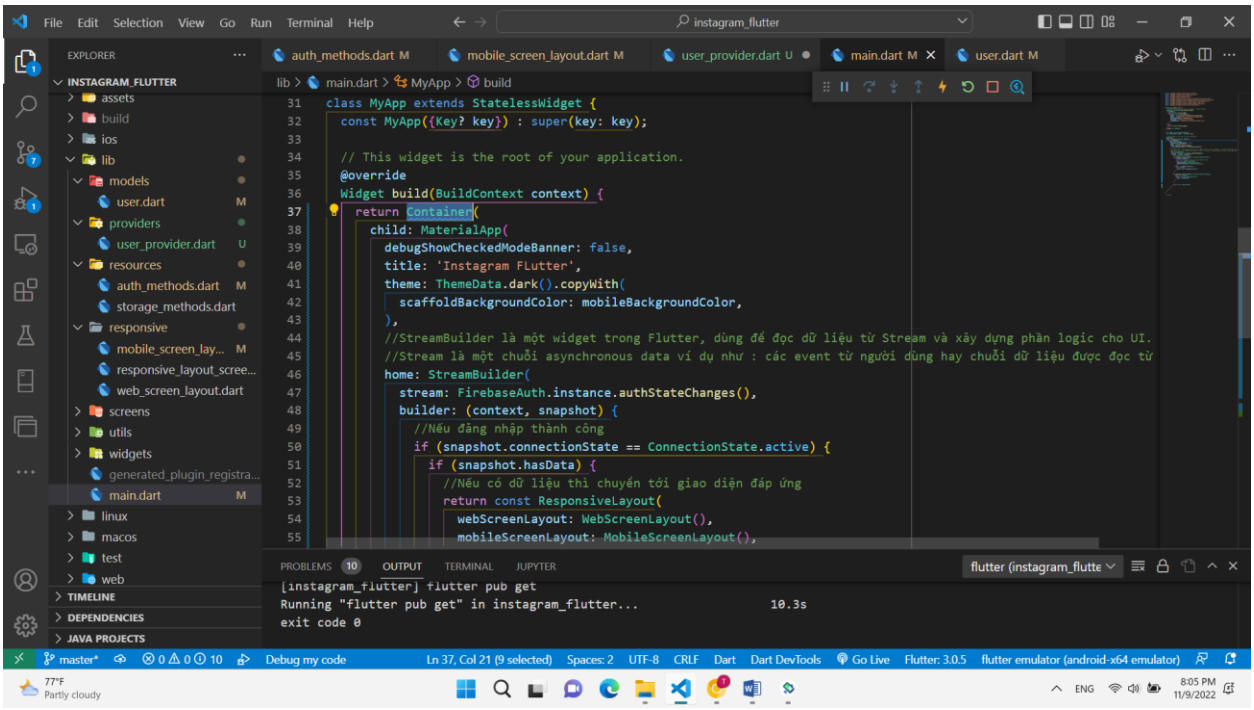
Bước 25. Lập mô hình dữ liệu người dùng

Bước 26. Quản lý trạng thái dữ liệu người dùng

Sử dụng provider để quản lý => tải provider về



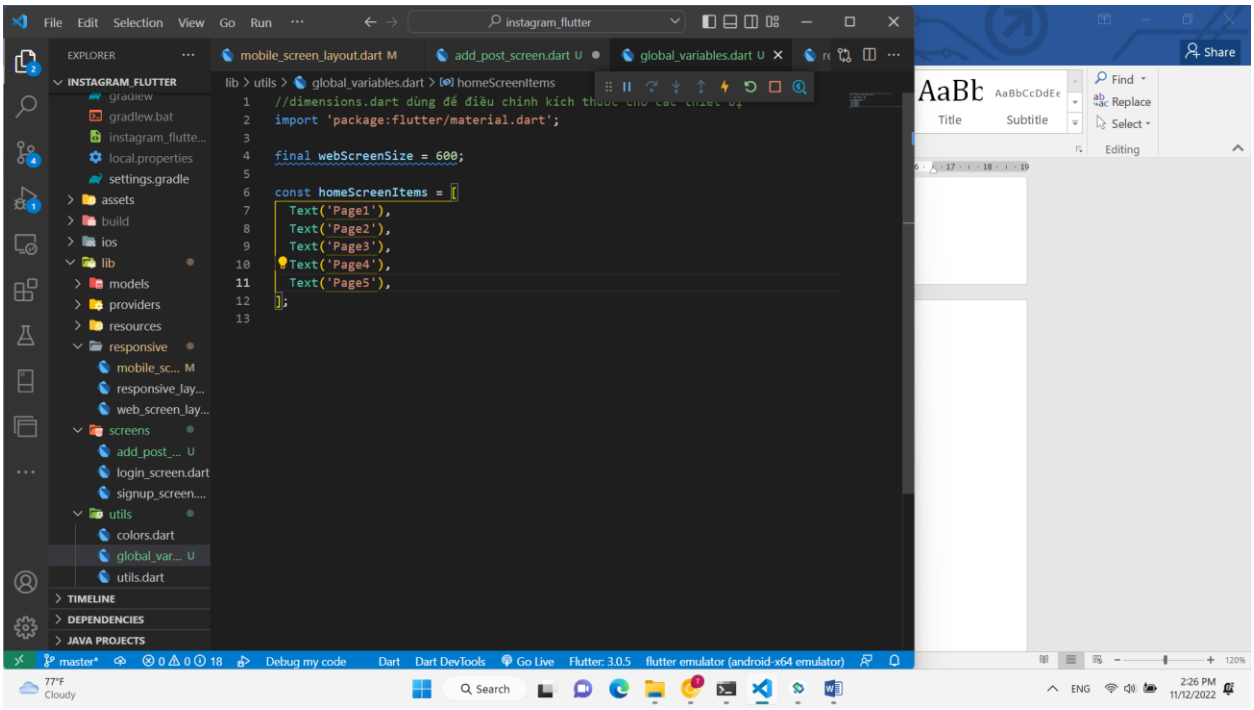
Bước 27. Chuyển đổi main.dart

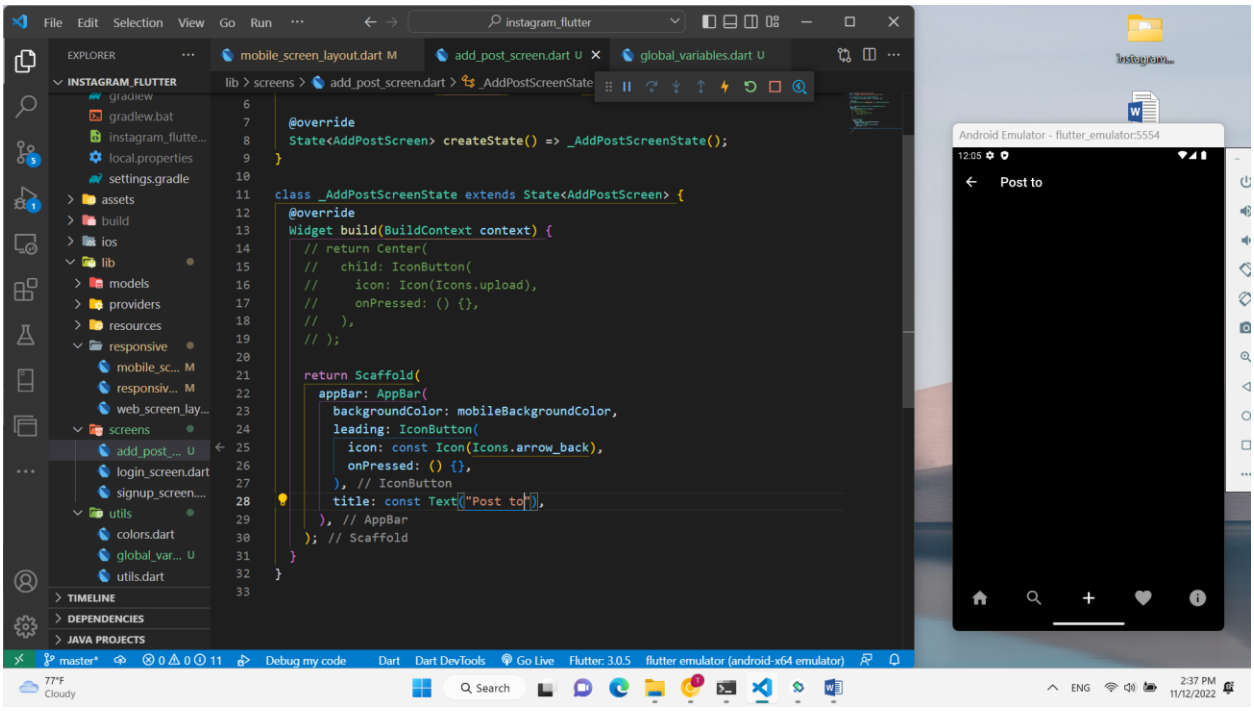


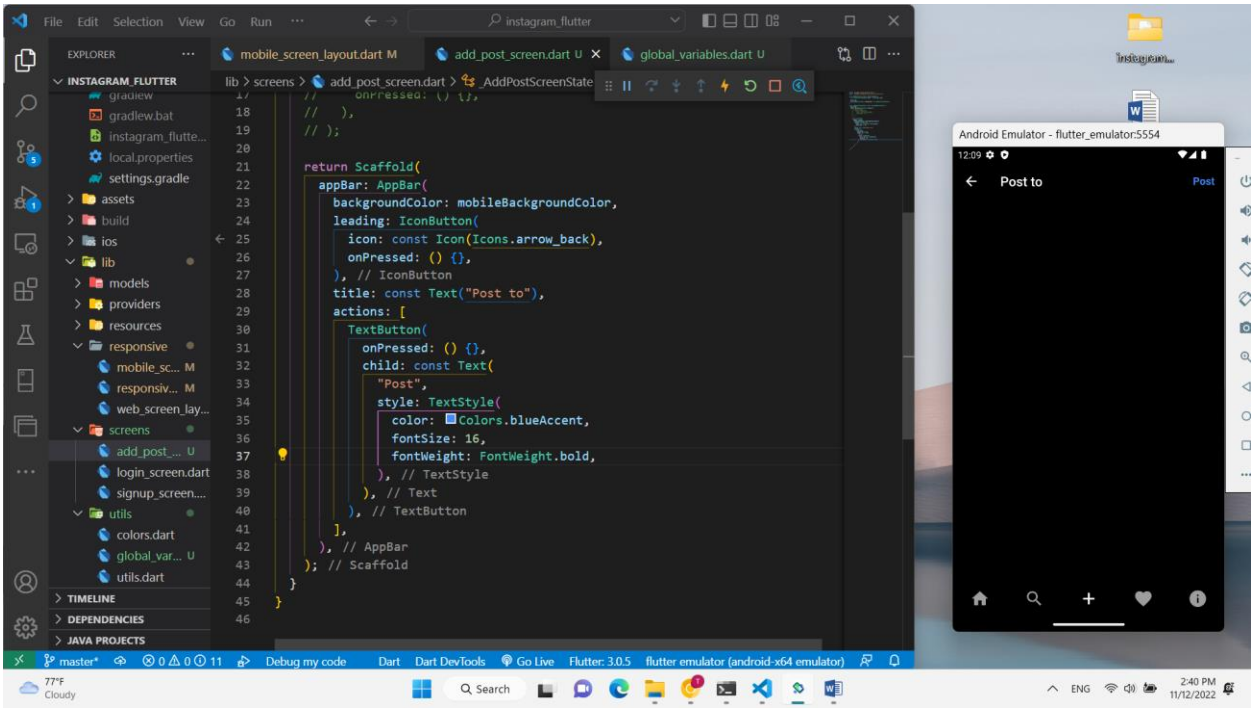
Bước 28. Chuyển đổi responsive layout thành stafulWidget

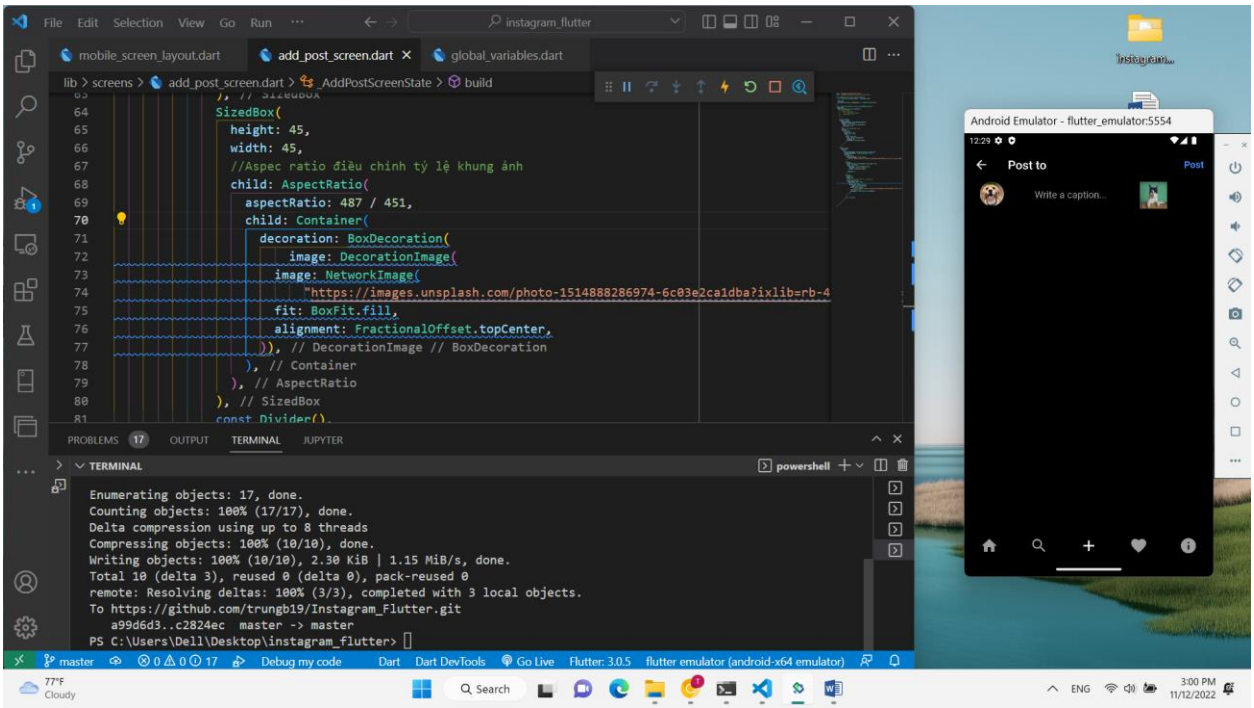
Bước 29. Xây dựng trang add post

Đổi tên tập tin dis thành global_variable.dart



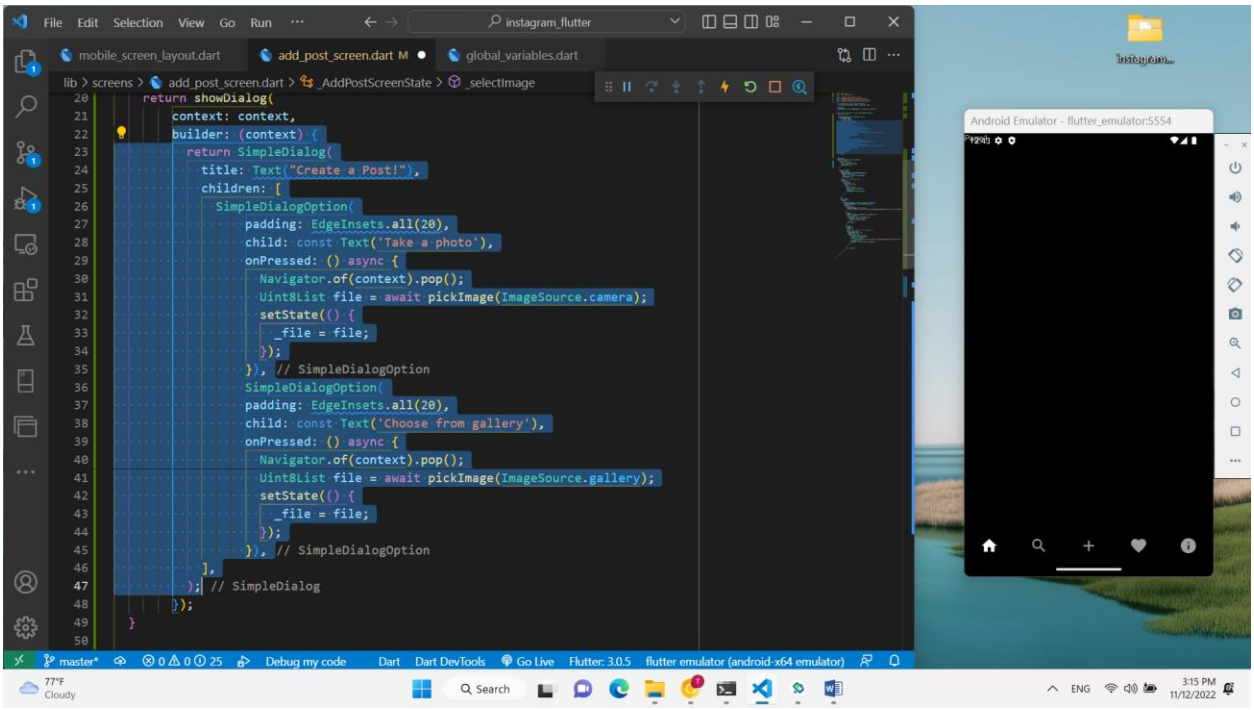



File Edit Selection View Go Run
instagram_flutter
EXPLORER
INSTAGRAM_FLUTTER
mobile_screen_layout.dart M
add_post_screen.dart U
global_variables.dart U
lib > screens > add_post_screen.dart > _AddPostScreenState
gradlew
gradlew.bat
instagram_flutte...
local.properties
settings.gradle
assets
build
ios
lib
models
providers
resources
responsive
mobile_sc... M
responsiv... M
web_screen_lay...
screens
add_post_... U
login_screen.dart
signup_screen....
utils
colors.dart
global_var... U
utils.dart
TIMELINE
DEPENDENCIES
JAVA PROJECTS
// onPressed: () {},
//),
//);
return Scaffold(
appBar: AppBar(
backgroundColor: mobileBackgroundColor,
leading: IconButton(
icon: const Icon(Icons.arrow_back),
onPressed: () {},
), // IconButton
title: const Text("Post to"),
actions: [
TextButton(
onPressed: () {},
child: const Text(
"Post",
style: TextStyle(
color: Colors.blueAccent,
fontSize: 16,
fontWeight: FontWeight.bold,
), // TextStyle
), // Text
), // TextButton
],
), // AppBar
); // Scaffold
}
}
master* 0 0 11 Debug my code Dart Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
77°F Cloudy
Search
ENG 2:40 PM 11/12/2022
Instagram...
Android Emulator - flutter_emulator:5554
12:09
Post to
Post

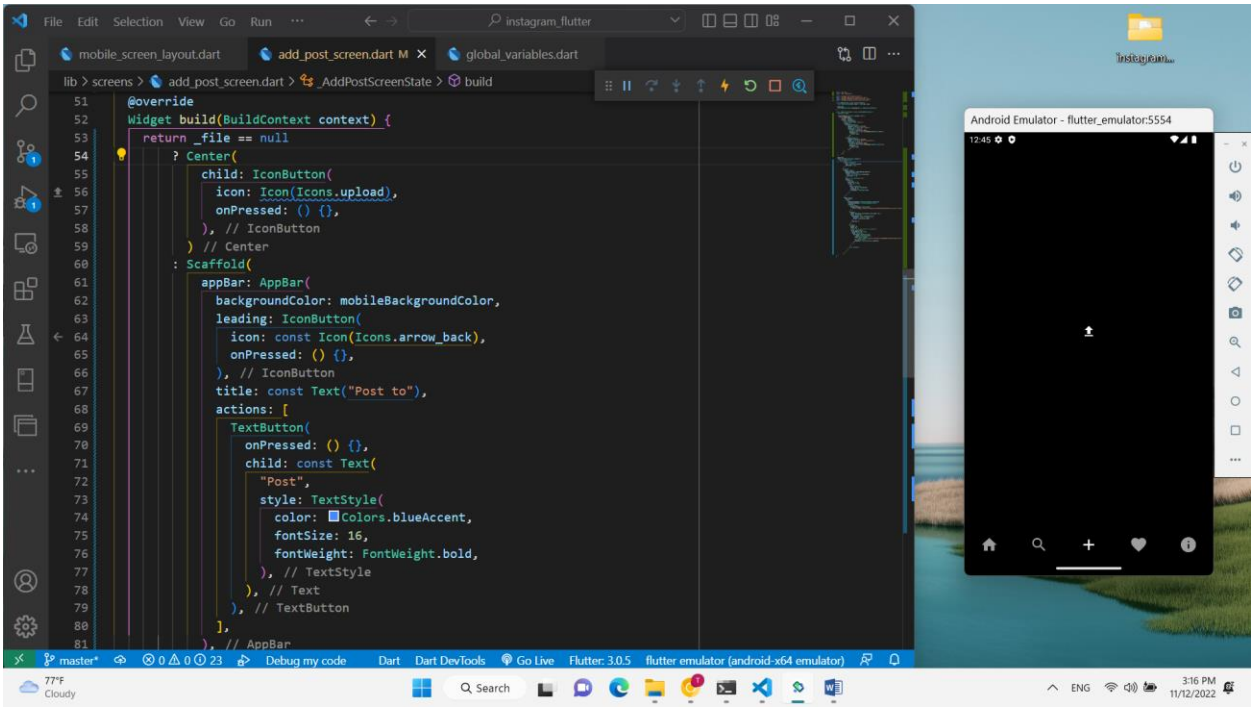

File Edit Selection View Go Run
instagram_flutter
mobile_screen_layout.dart
add_post_screen.dart
global_variables.dart
lib > screens > add_post_screen.dart > _AddPostScreenState > build
SizedBox(
height: 45,
width: 45,
//Aspec ratio điều chỉnh tỷ lệ khung ảnh
child: AspectRatio(
aspectRatio: 487 / 451,
child: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: NetworkImage(
"https://images.unsplash.com/photo-1514888286974-6c03e2ca1dba?ixlib=rb-4
fit: BoxFit.fill,
alignment: FractionalOffset.topCenter,
)), // DecorationImage // BoxDecoration
), // Container
), // AspectRatio
), // SizedBox
const Divider(),
PROBLEMS 17 OUTPUT TERMINAL JUPYTER
TERMINAL
powershell
Enumerating objects: 17, done.
Counting objects: 100% (17/17), done.
Delta compression using up to 8 threads
Compressing objects: 100% (10/10), done.
Writing objects: 100% (10/10), 2.30 KiB | 1.15 MiB/s, done.
Total 10 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To https://github.com/trungb19/Instagram_Flutter.git
a99d6d3..c2824ec master -> master
PS C:\Users\Dell\Desktop\instagram_flutter>
master 0 0 17 Debug my code Dart Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
77°F Cloudy
Search
ENG 3:00 PM 11/12/2022
Instagram...
Android Emulator - flutter_emulator:5554
12:29
Post to
Post
Write a caption...

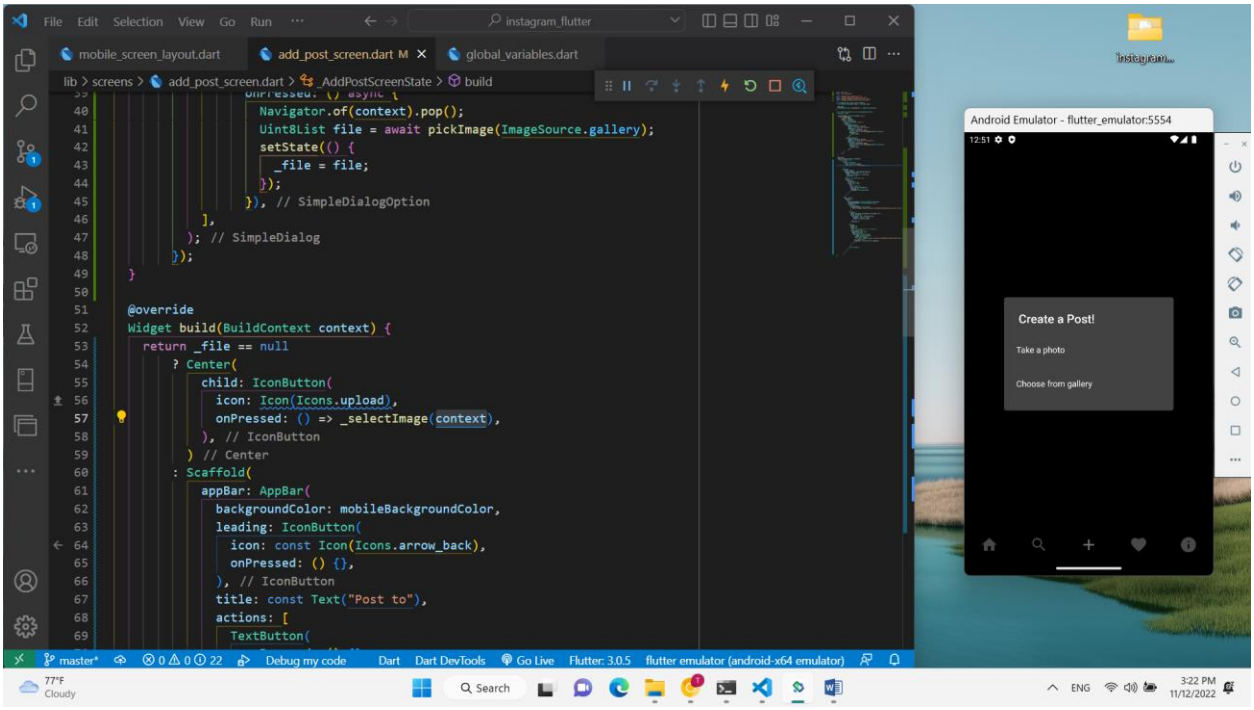
Bước 30. Select image

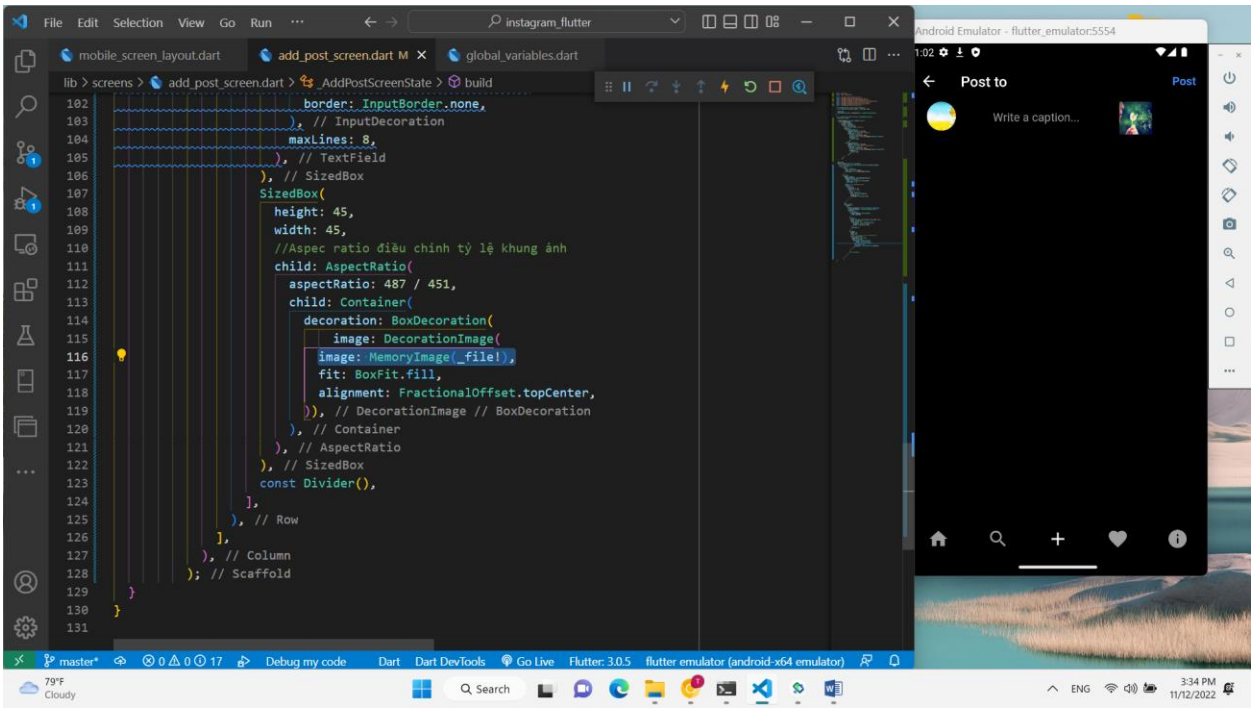
Viết hàm _selectimage

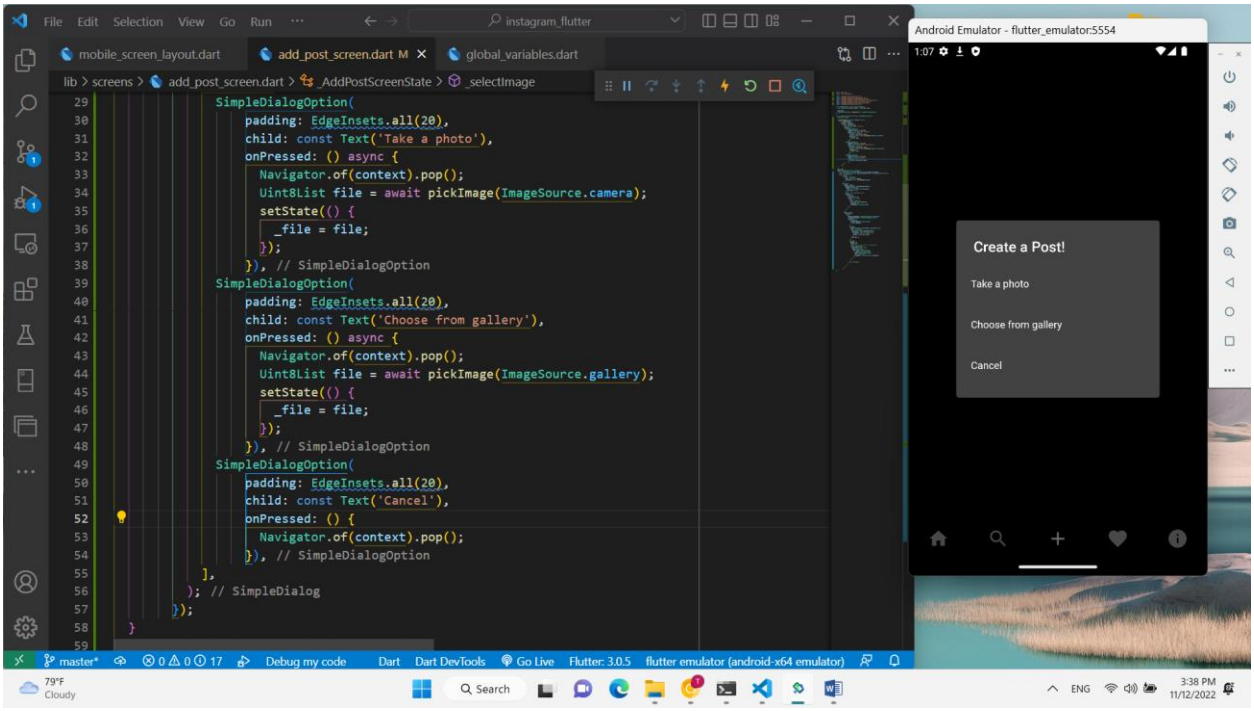


Hiệu chỉnh builder




File Edit Selection View Go Run
instagram_flutter
mobile_screen_layout.dart
add_post_screen.dart M
global_variables.dart
lib > screens > add_post_screen.dart > _AddPostScreenState > build
Navigator.of(context).pop();
Uint8List file = await pickImage(ImageSource.gallery);
setState(() {
_file = file;
});
}), // SimpleDialogOption
); // SimpleDialog
}
@override
Widget build(BuildContext context) {
return _file == null
? Center(
child: IconButton(
icon: Icon(Icons.upload),
onPressed: () => _selectImage(context),
), // IconButton
) // Center
: Scaffold(
appBar: AppBar(
backgroundColor: mobileBackgroundColor,
leading: IconButton(
icon: const Icon(Icons.arrow_back),
onPressed: () {},
), // IconButton
title: const Text("Post to"),
actions: [
TextButton(
master*
Debug my code
Dart
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Create a Post!
Take a photo
Choose from gallery
77°F
Cloudy
Search
ENG
3:22 PM
11/12/2022

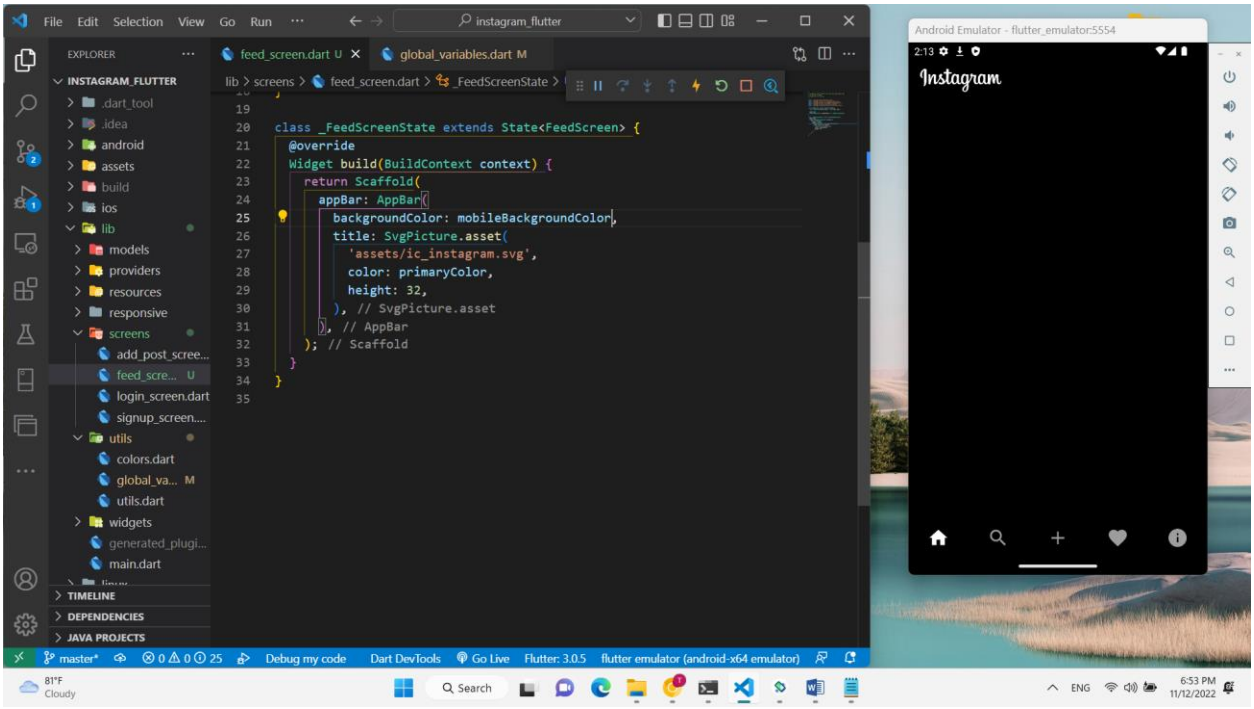

File Edit Selection View Go Run
instagram_flutter
mobile_screen_layout.dart
add_post_screen.dart M
global_variables.dart
lib > screens > add_post_screen.dart > _AddPostScreenState > build
border: InputBorder.none,
), // InputDecoration
maxLines: 8,
), // TextField
), // SizedBox
SizedBox(
height: 45,
width: 45,
//Aspec ratio điều chỉnh tỷ lệ khung ảnh
child: AspectRatio(
aspectRatio: 487 / 451,
child: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: MemoryImage(_file!),
fit: BoxFit.fill,
alignment: FractionalOffset.topCenter,
)), // DecorationImage // BoxDecoration
), // Container
), // AspectRatio
), // SizedBox
const Divider(),
],
), // Row
], // Column
); // Scaffold
}
}
master*
Debug my code
Dart
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Post to
Post
Write a caption...
79°F
Cloudy
Search
ENG
3:34 PM
11/12/2022

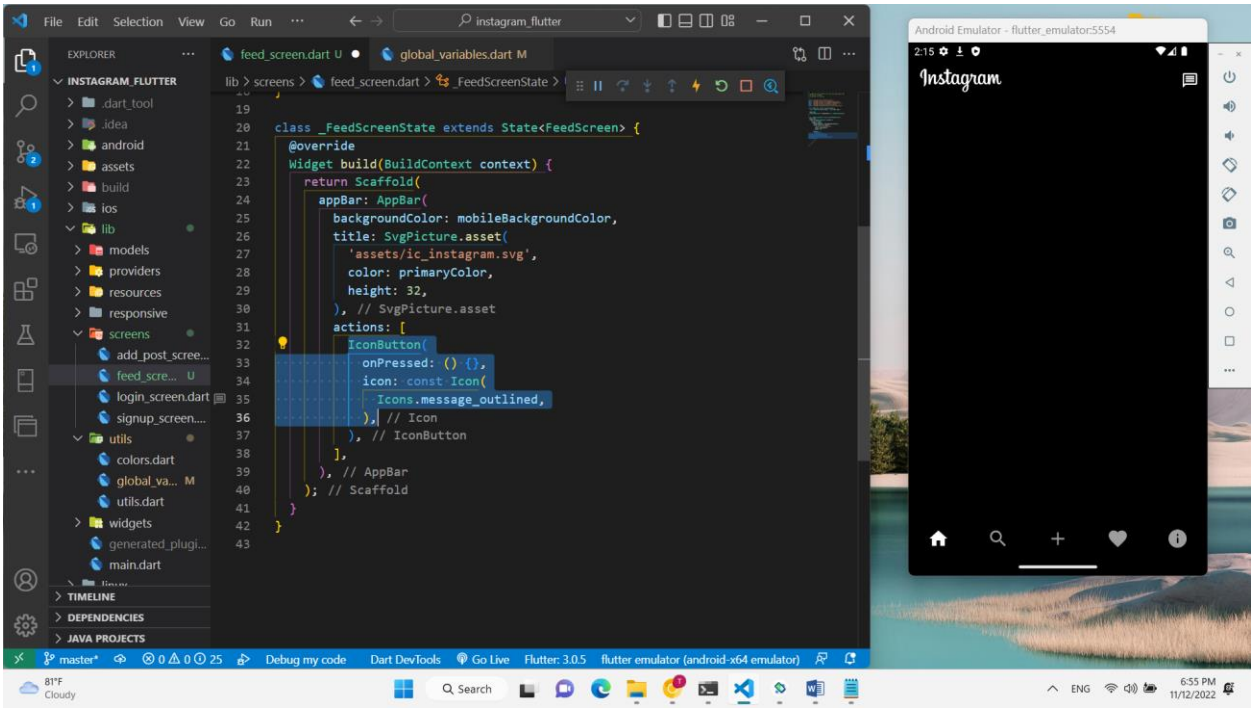


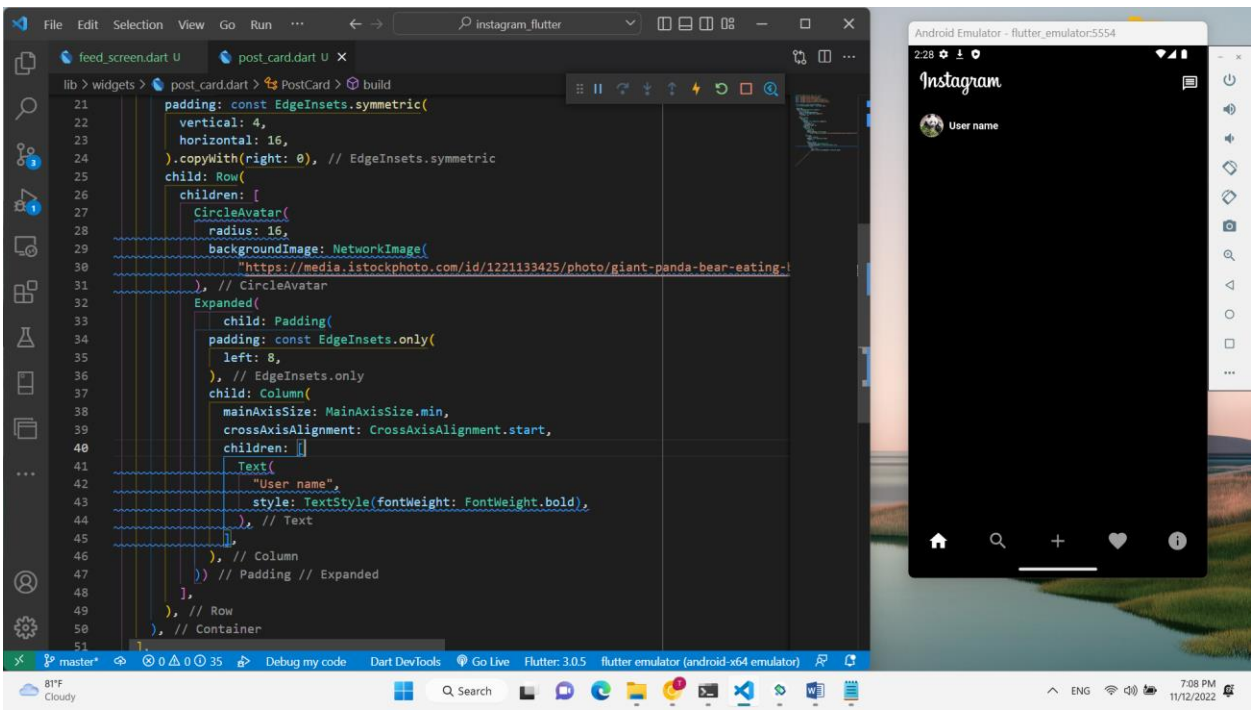
Bước 31. Lưu trữ post lên firebasestore

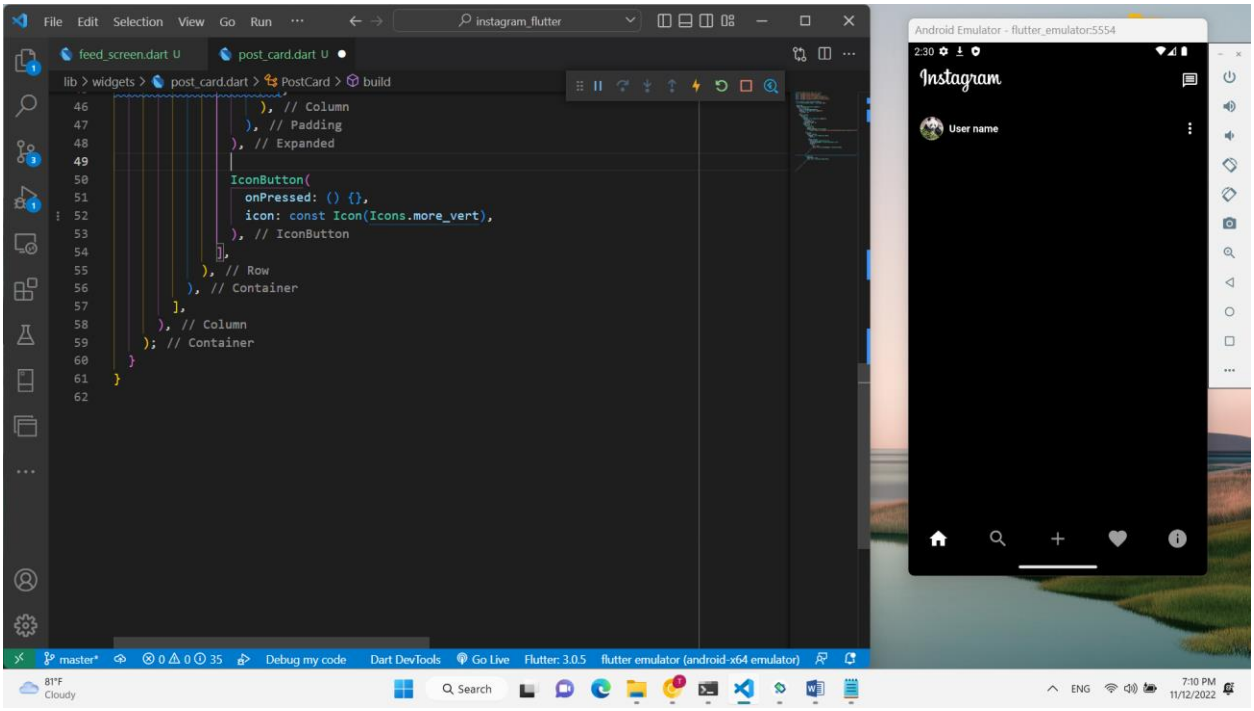
Tải về uuid

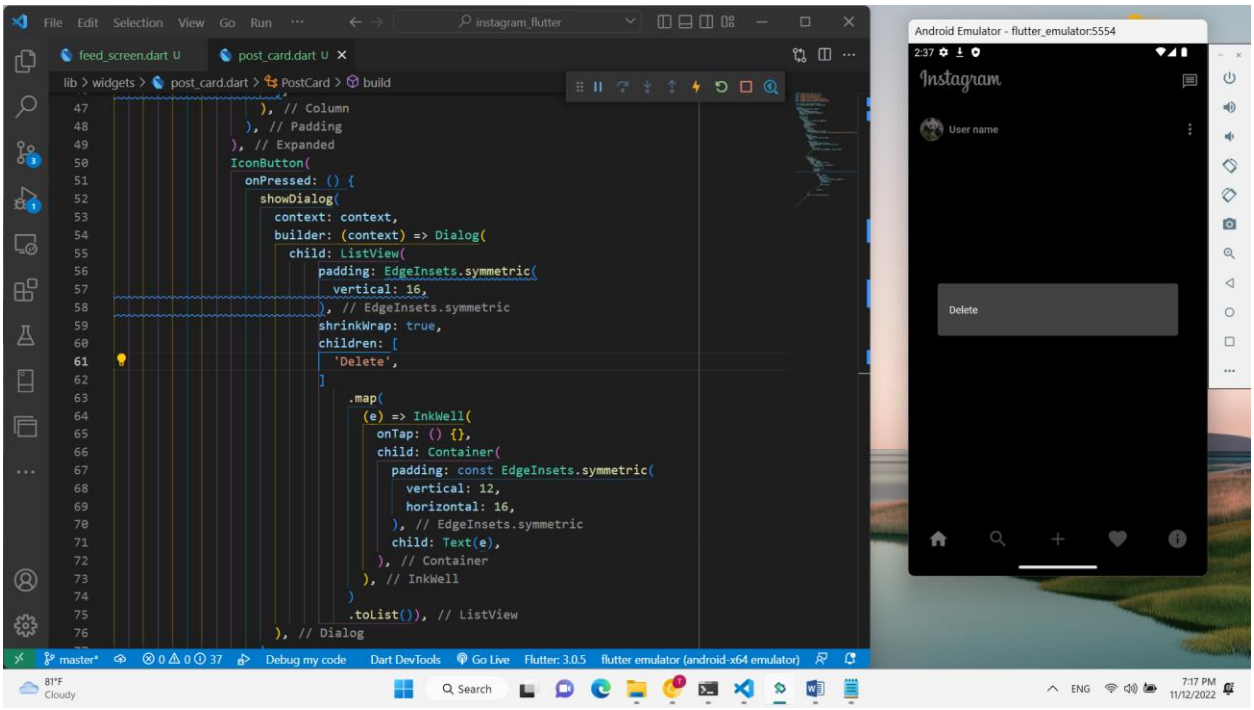
Bước 32. Giao diện người dùng lấy dữ liệu từ firebase

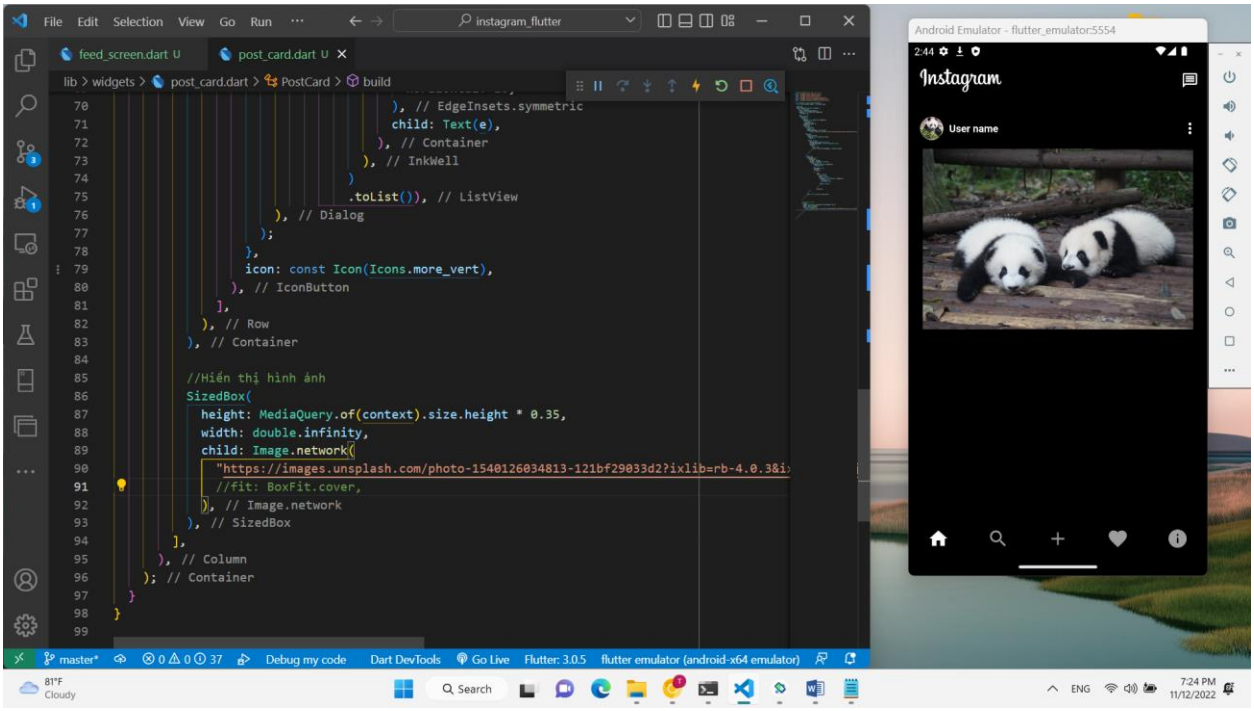


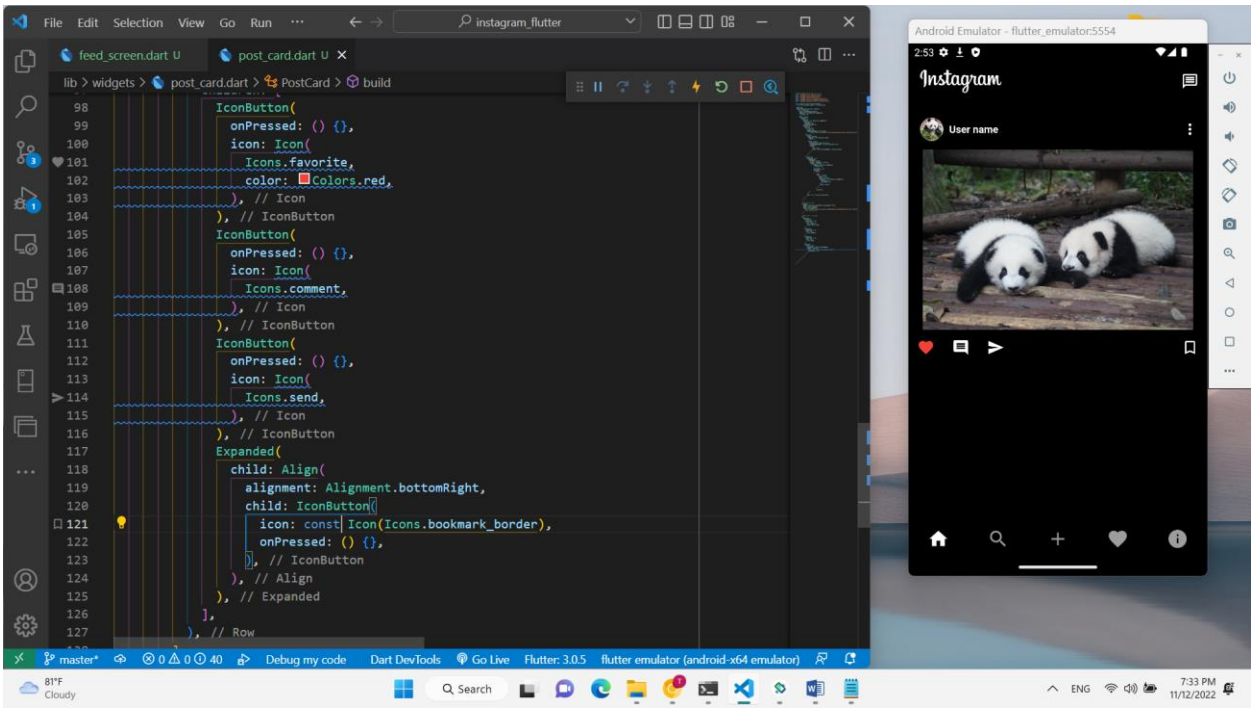

File Edit Selection View Go Run
instagram_flutter
EXPLORER
INSTAGRAM_FLUTTER
feed_screen.dart U
global_variables.dart M
lib > screens > feed_screen.dart > _FeedScreenState
class _FeedScreenState extends State<FeedScreen> {
@override
Widget build(BuildContext context) {
return Scaffold(
appBar: AppBar(
backgroundColor: mobileBackgroundColor,
title: SvgPicture.asset(
'assets/ic_instagram.svg',
color: primaryColor,
height: 32,
), // SvgPicture.asset
actions: [
IconButton(
onPressed: () {},
icon: const Icon(
Icons.message_outlined,
), // Icon
), // IconButton
],
), // AppBar
); // Scaffold
}
}
Android Emulator - flutter_emulator:5554
Instagram
Debug my code
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)


File Edit Selection View Go Run
instagram_flutter
feed_screen.dart U
post_card.dart U
lib > widgets > post_card.dart > PostCard > build
padding: const EdgeInsets.symmetric(
vertical: 4,
horizontal: 16,
).copyWith(right: 0), // EdgeInsets.symmetric
child: Row(
children: [
CircleAvatar(
radius: 16,
backgroundImage: NetworkImage(
"https://media.istockphoto.com/id/1221133425/photo/giant-panda-bear-eating-
), // CircleAvatar
Expanded(
child: Padding(
padding: const EdgeInsets.only(
left: 8,
), // EdgeInsets.only
child: Column(
mainAxisSize: MainAxisSize.min,
crossAxisAlignment: CrossAxisAlignment.start,
children: [
Text(
"User name",
style: TextStyle(fontWeight: FontWeight.bold),
), // Text
],
), // Column
)) // Padding // Expanded
],
), // Row
), // Container
Android Emulator - flutter_emulator:5554
Instagram
User name
Debug my code
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)

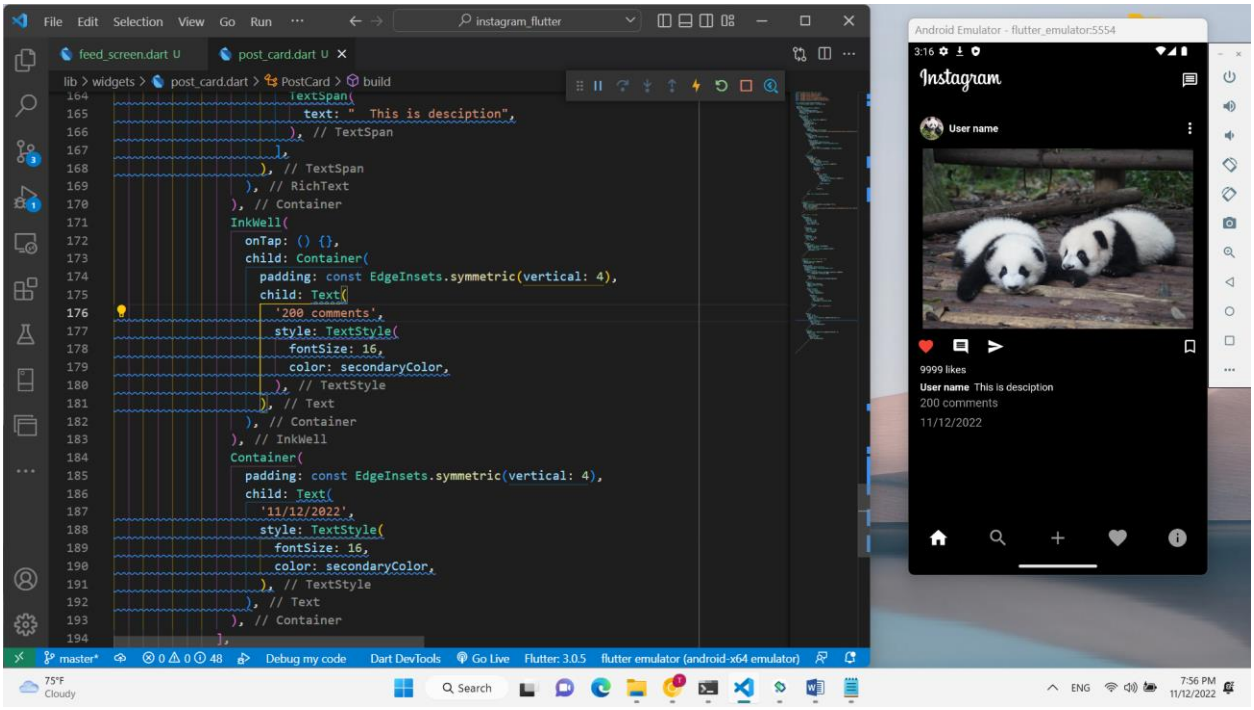

File Edit Selection View Go Run
instagram_flutter
feed_screen.dart U
post_card.dart U
lib > widgets > post_card.dart > PostCard > build
), // Column
), // Padding
), // Expanded
IconButton(
onPressed: () {},
icon: const Icon(Icons.more_vert),
), // IconButton
], // Row
), // Container
], // Column
); // Container
}
}
master* 0 0 35 Debug my code Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
81°F Cloudy
Search
ENG 7:10 PM 11/12/2022
Android Emulator - flutter_emulator:5554
2:30
Instagram
User name


File Edit Selection View Go Run
instagram_flutter
feed_screen.dart U
post_card.dart U
lib > widgets > post_card.dart > PostCard > build
), // Column
), // Padding
), // Expanded
IconButton(
onPressed: () {
showDialog(
context: context,
builder: (context) => Dialog(
child: ListView(
padding: EdgeInsets.symmetric(
vertical: 16,
), // EdgeInsets.symmetric
shrinkWrap: true,
children: [
'Delete',
]
.map(
(e) => InkWell(
onTap: () {},
child: Container(
padding: const EdgeInsets.symmetric(
vertical: 12,
horizontal: 16,
), // EdgeInsets.symmetric
child: Text(e),
), // Container
), // InkWell
)
.toList()), // ListView
), // Dialog
master* 0 0 37 Debug my code Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
81°F Cloudy
Search
ENG 7:17 PM 11/12/2022
Android Emulator - flutter_emulator:5554
2:37
Instagram
User name
Delete


File Edit Selection View Go Run
instagram_flutter
feed_screen.dart U
post_card.dart U
lib > widgets > post_card.dart > PostCard > build
//Hiển thị hình ảnh
SizedBox(
height: MediaQuery.of(context).size.height * 0.35,
width: double.infinity,
child: Image.network(
"https://images.unsplash.com/photo-1540126034813-121bf29033d2?ixlib=rb-4.0.3&i
//fit: BoxFit.cover,
), // Image.network
), // SizedBox
], // Column
); // Container
}
}
master*
Debug my code
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
User name
81°F
Cloudy
Search
ENG
7:24 PM
11/12/2022

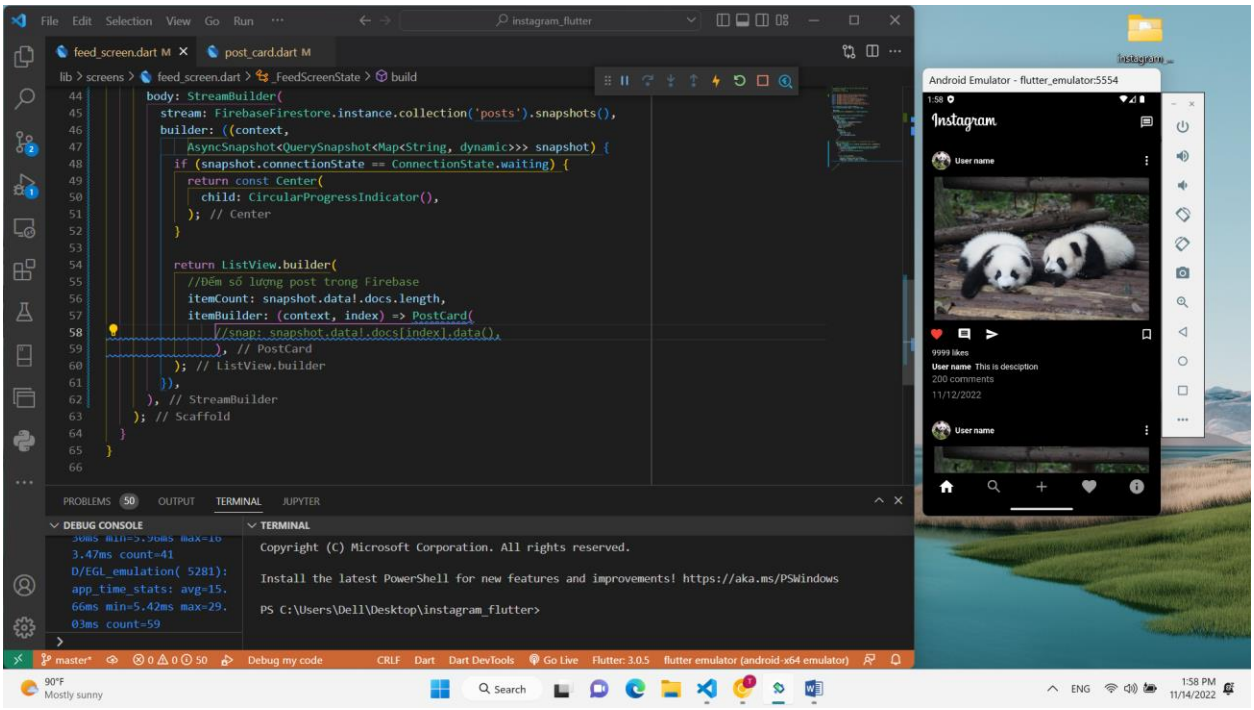

File Edit Selection View Go Run
instagram_flutter
feed_screen.dart U
post_card.dart U
lib > widgets > post_card.dart > PostCard > build
IconButton(
onPressed: () {},
icon: Icon(
Icons.favorite,
color: Colors.red,
), // Icon
), // IconButton
IconButton(
onPressed: () {},
icon: Icon(
Icons.comment,
), // Icon
), // IconButton
IconButton(
onPressed: () {},
icon: Icon(
Icons.send,
), // Icon
), // IconButton
Expanded(
child: Align(
alignment: Alignment.bottomRight,
child: IconButton(
icon: const Icon(Icons.bookmark_border),
onPressed: () {},
), // IconButton
), // Align
), // Expanded
], // Row
master*
Debug my code
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
User name
81°F
Cloudy
Search
ENG
7:33 PM
11/12/2022

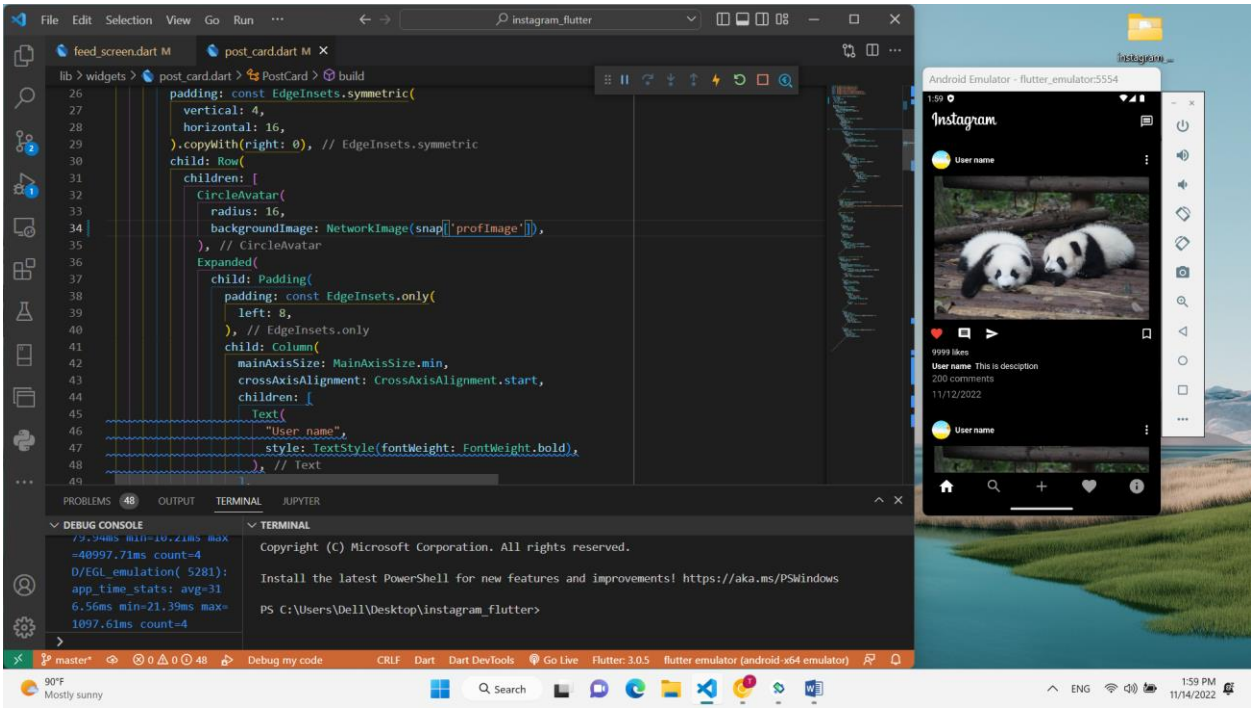
Feed Screen hoàn thành

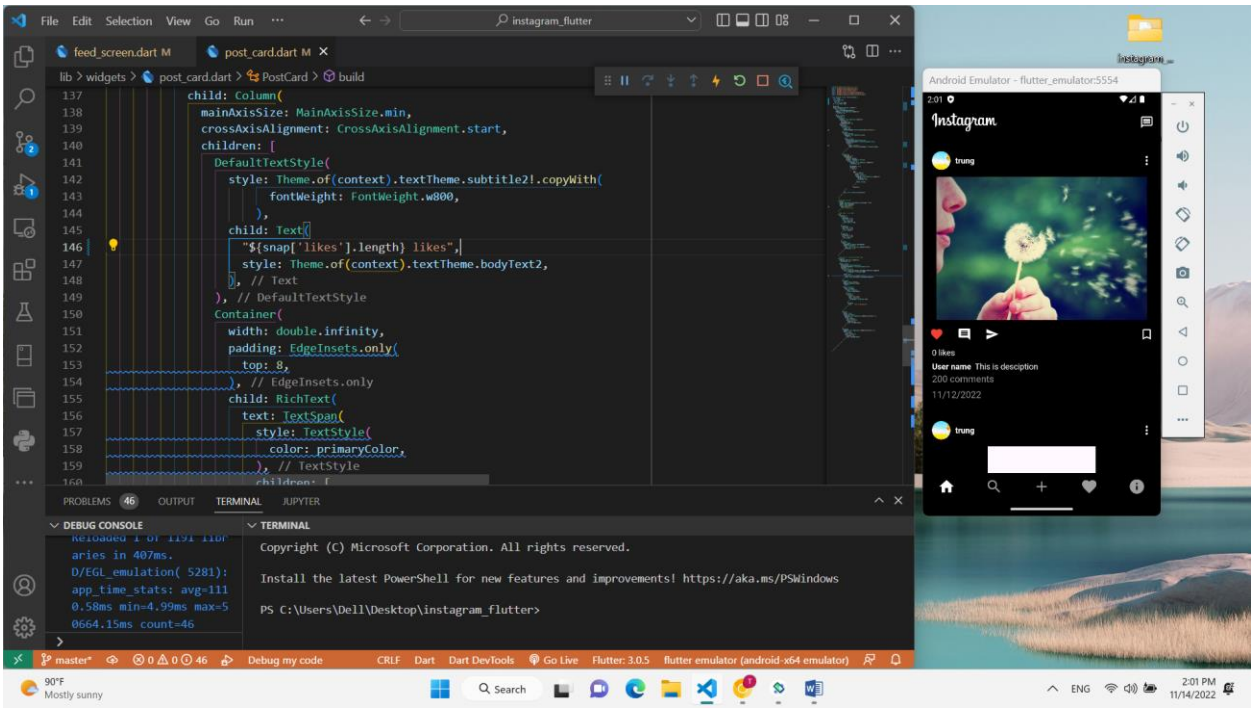


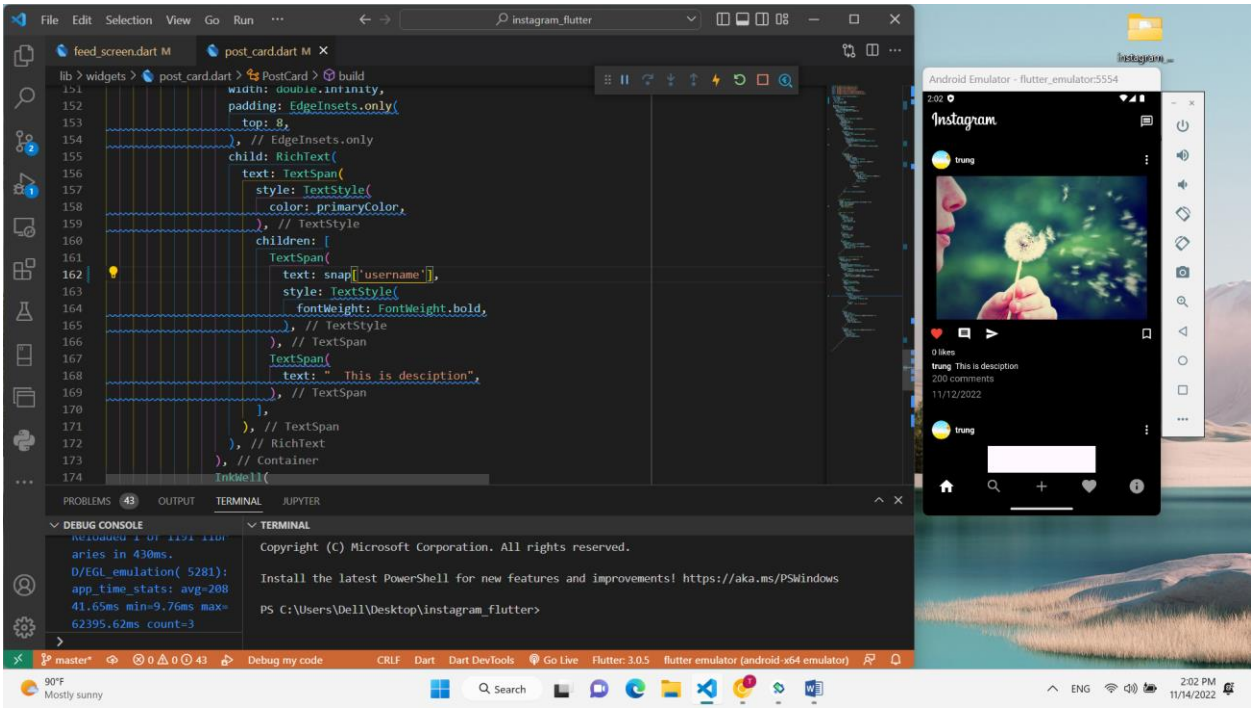
Bước 33. Lấy dữ liệu posts từ firebase

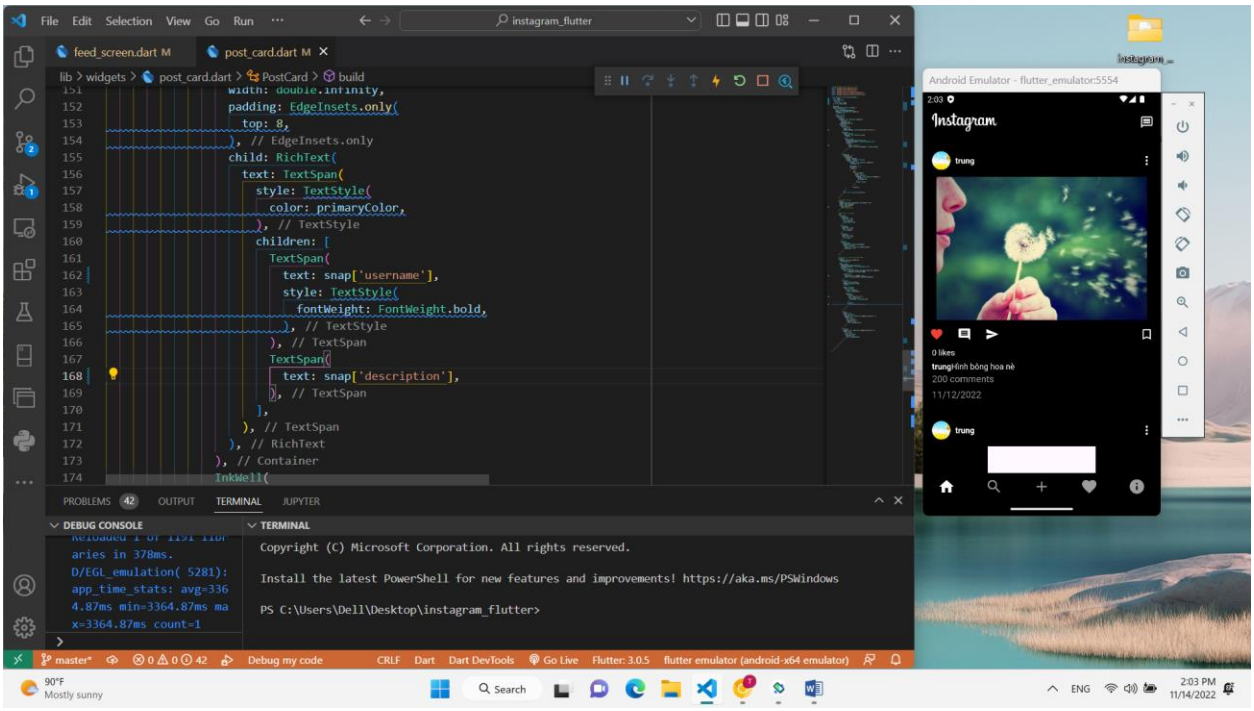
Dùng ListView

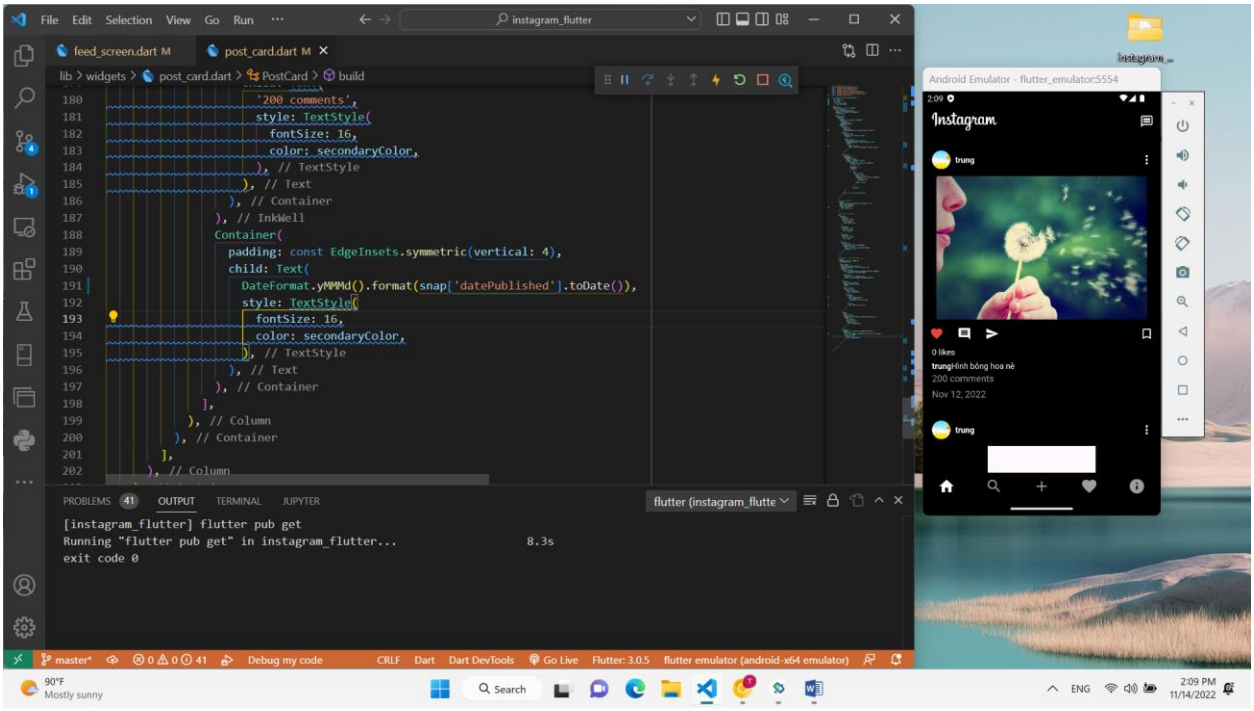



File Edit Selection View Go Run
instagram_flutter
feed_screen.dart M
post_card.dart M
lib > widgets > post_card.dart > PostCard > build
padding: const EdgeInsets.symmetric(
vertical: 4,
horizontal: 16,
).copyWith(right: 0), // EdgeInsets.symmetric
child: Row(
children: [
CircleAvatar(
radius: 16,
backgroundImage: NetworkImage(snap['profImage']),
), // CircleAvatar
Expanded(
child: Padding(
padding: const EdgeInsets.only(
left: 8,
), // EdgeInsets.only
child: Column(
mainAxisSize: MainAxisSize.min,
crossAxisAlignment: CrossAxisAlignment.start,
children: [
Text(
"User name",
style: TextStyle(fontWeight: FontWeight.bold),
), // Text
PROBLEMS 48
OUTPUT
TERMINAL
JUPYTER
DEBUG CONSOLE
=40997.71ms count=4
D/EGL_emulation(5281):
app_time_stats: avg=31
6.56ms min=21.39ms max=
1097.61ms count=4
TERMINAL
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Dell\Desktop\instagram_flutter>
master*
Debug my code
CRLF Dart Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
User name
9999 likes
User name This is desciption
200 comments
11/12/2022
User name
90°F
Mostly sunny
Search
ENG
1:59 PM
11/14/2022

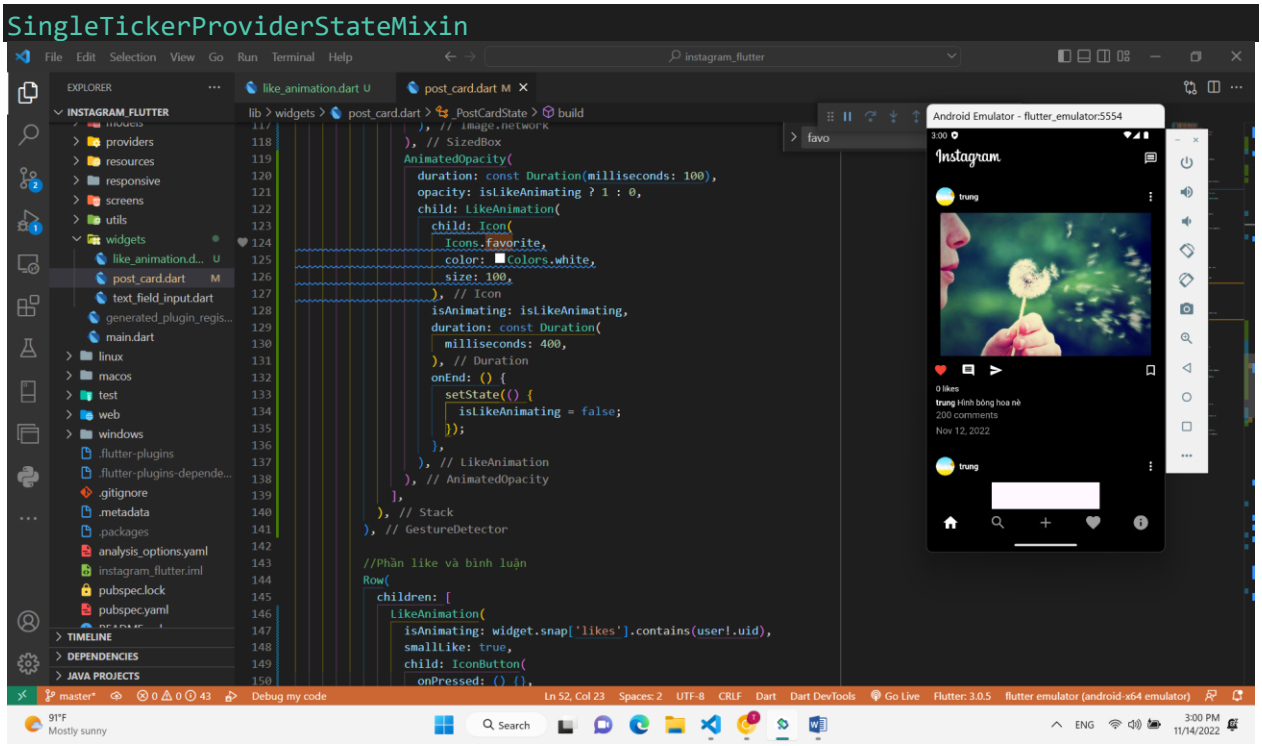

File Edit Selection View Go Run
instagram_flutter
feed_screen.dart M
post_card.dart M
lib > widgets > post_card.dart > PostCard > build
child: Column(
mainAxisSize: MainAxisSize.min,
crossAxisAlignment: CrossAxisAlignment.start,
children: [
DefaultTextStyle(
style: Theme.of(context).textTheme.subtitle2!.copyWith(
fontWeight: FontWeight.w800,
),
child: Text(
"${snap['likes'].length} likes",
style: Theme.of(context).textTheme.bodyText2,
), // Text
), // DefaultTextStyle
Container(
width: double.infinity,
padding: EdgeInsets.only(
top: 8,
), // EdgeInsets.only
child: RichText(
text: TextSpan(
style: TextStyle(
color: primaryColor,
), // TextStyle
PROBLEMS 46
OUTPUT
TERMINAL
JUPYTER
DEBUG CONSOLE
aries in 407ms.
D/EGL_emulation(5281):
app_time_stats: avg=111
0.58ms min=4.99ms max=5
0664.15ms count=46
TERMINAL
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Dell\Desktop\instagram_flutter>
master*
Debug my code
CRLF Dart Dart DevTools Go Live Flutter: 3.0.5 flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
trung
0 likes
User name This is desciption
200 comments
11/12/2022
trung
90°F
Mostly sunny
Search
ENG
2:01 PM
11/14/2022


File Edit Selection View Go Run
instagram_flutter
feed_screen.dart M
post_card.dart M
lib > widgets > post_card.dart > PostCard > build
width: double.infinity,
padding: EdgeInsets.only(
top: 8,
), // EdgeInsets.only
child: RichText(
text: TextSpan(
style: TextStyle(
color: primaryColor,
), // TextStyle
children: [
TextSpan(
text: snap['username'],
style: TextStyle(
fontWeight: FontWeight.bold,
), // TextStyle
), // TextSpan
TextSpan(
text: " This is desciption",
), // TextSpan
],
), // TextSpan
), // RichText
), // Container
InkWell(
PROBLEMS 43
OUTPUT
TERMINAL
JUPYTER
DEBUG CONSOLE
aries in 430ms.
D/EGL_emulation(5281): app_time_stats: avg=20841.65ms min=9.76ms max=62395.62ms count=3
TERMINAL
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Dell\Desktop\instagram_flutter>
master*
Debug my code
CRLF
Dart
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
trung
0 likes
trung This is desciption
200 comments
11/12/2022
trung
90°F
Mostly sunny
Search
ENG
2:02 PM
11/14/2022

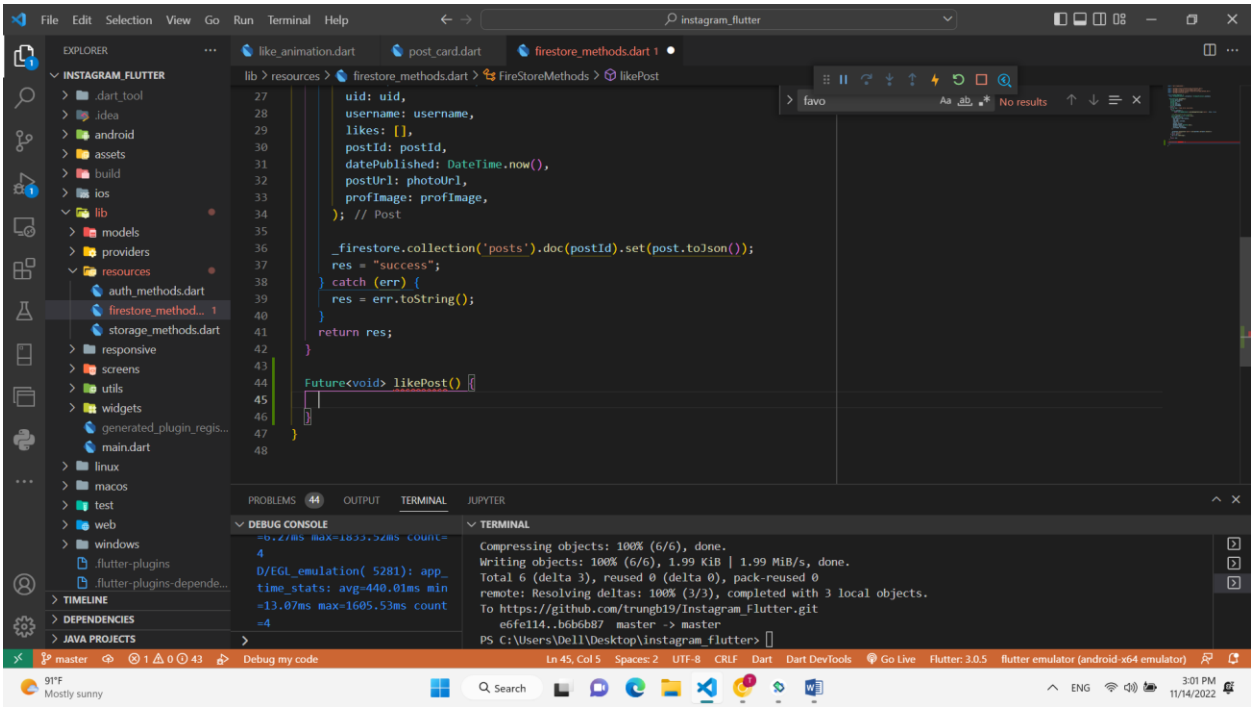

File Edit Selection View Go Run
instagram_flutter
feed_screen.dart M
post_card.dart M
lib > widgets > post_card.dart > PostCard > build
width: double.infinity,
padding: EdgeInsets.only(
top: 8,
), // EdgeInsets.only
child: RichText(
text: TextSpan(
style: TextStyle(
color: primaryColor,
), // TextStyle
children: [
TextSpan(
text: snap['username'],
style: TextStyle(
fontWeight: FontWeight.bold,
), // TextStyle
), // TextSpan
TextSpan(
text: snap['description'],
), // TextSpan
],
), // TextSpan
), // RichText
), // Container
InkWell(
PROBLEMS 42
OUTPUT
TERMINAL
JUPYTER
DEBUG CONSOLE
aries in 378ms.
D/EGL_emulation(5281): app_time_stats: avg=3364.87ms min=3364.87ms max=3364.87ms count=1
TERMINAL
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Dell\Desktop\instagram_flutter>
master*
Debug my code
CRLF
Dart
Dart DevTools
Go Live
Flutter: 3.0.5
flutter emulator (android-x64 emulator)
Android Emulator - flutter_emulator:5554
Instagram
trung
0 likes
trung Hình bông hoa nè
200 comments
11/12/2022
trung
90°F
Mostly sunny
Search
ENG
2:03 PM
11/14/2022

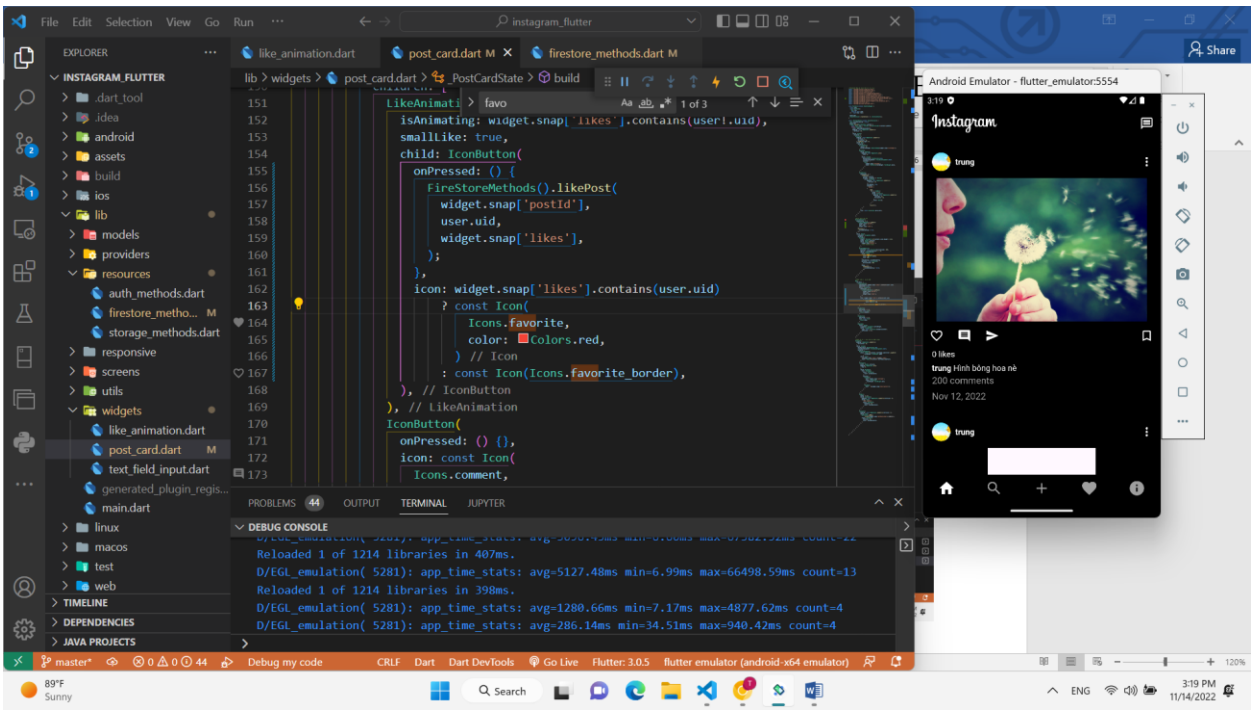


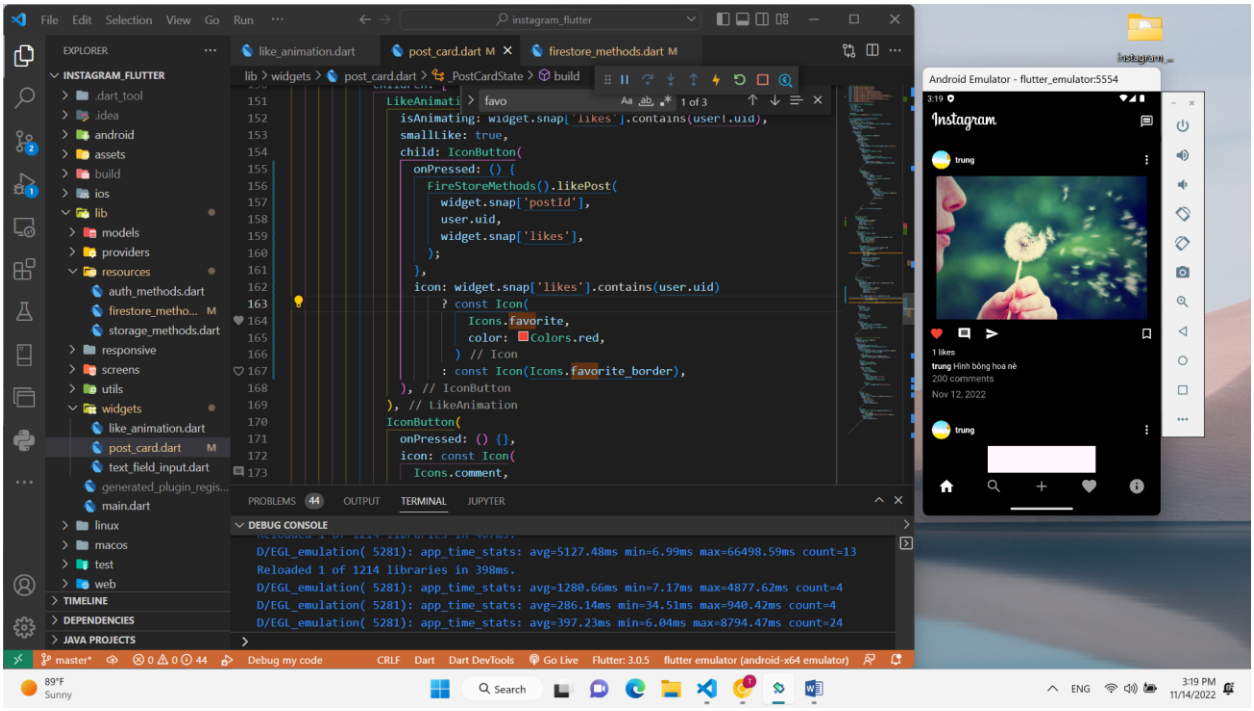
Bước 34. Tạo hiệu ứng like (like animation)



Bước 35. Cập nhật like post lên Firebase






File Edit Selection View Go Run
instagram_flutter
EXPLORER
INSTAGRAM_FLUTTER
like_animation.dart
post_card.dart M
firestore_methods.dart M
lib > widgets > post_card.dart > _PostCardState > build
favo
1 of 3
LikeAnimati
isAnimating: widget.snap['likes'].contains(user!.uid),
smallLike: true,
child: IconButton(
onPressed: () {
FireStoreMethods().likePost(
widget.snap['postId'],
user.uid,
widget.snap['likes'],
);
},
icon: widget.snap['likes'].contains(user.uid)
? const Icon(
Icons.favorite,
color: Colors.red,
) // Icon
: const Icon(Icons.favorite_border),
), // IconButton
), // LikeAnimation
IconButton(
onPressed: () {},
icon: const Icon(
Icons.comment,
PROBLEMS 44
OUTPUT
TERMINAL
JUPYTER
DEBUG CONSOLE
D/EGL_emulation(5281): app_time_stats: avg=5127.48ms min=6.99ms max=66498.59ms count=13
Reloaded 1 of 1214 libraries in 398ms.
D/EGL_emulation(5281): app_time_stats: avg=1280.66ms min=7.17ms max=4877.62ms count=4
D/EGL_emulation(5281): app_time_stats: avg=286.14ms min=34.51ms max=940.42ms count=4
D/EGL_emulation(5281): app_time_stats: avg=397.23ms min=6.04ms max=8794.47ms count=24
Android Emulator - flutter_emulator:5554
Instagram
trung
1 likes
trung Hình bông hoa nè
200 comments
Nov 12, 2022
Search
ENG
3:19 PM
11/14/2022