Instagram Clone

🡪debugShowCheckedModeBanner: false will turns on a little "DEBUG" banner in debug mode to indicate that the app is in debug mode.

🡪copyWith() poperty allows you to create an object of same properties with you specifying parameters to change some property. EG- scaffoldBackgroundColor

🡪LayoutBuilder (used in responsive\_layout for responsive layout) is used to apply or use different screens based on the screen constraints.

🡪create Login screen and add flutter\_svg package and also add assets folder.

🡪OutlineInputBorder class creates an outline to a textfield in flutter (used in text\_form\_field.dart) and its borderSide property allows to give it a color as BorderSide(color: ColorName). You have to assign it to InputDecoration of decoration property in TextField.

🡪In this project, Flexible is used to make spaces between the Login credentials form and Transition details (don’t have an account and Sign up) (used in Login Screen).

🡪to make a container clickable, wrap a container around GestureDestector().

🡪Following code is used to make a container button-

Container(

              child: Text('Login'),

              padding: EdgeInsets.symmetric(vertical: 12),

              width: double.infinity,

              alignment: Alignment.center,

              decoration: const ShapeDecoration(

                  shape: RoundedRectangleBorder(

                    borderRadius: BorderRadius.all(Radius.circular(12.0)),

                  ),

                  color: Colors.blue),

            ),

Added image\_picker library in flutter to select image from library.

Created imagepicker method in utils folder and called it in signup

**🡪When adding image from Web, NetworkImage must be used to show file in CircleAvatar and in case of mobile, Image.file() must be used.**

Task: Add getx in the project for user login.

Convert snap to Post object to fetch value from Post instance and not from snap[id].

1. Use “stream” in post\_card.dart to fetch the count of comments because when we post a comment and see the count, it wont increase, instead we have to switch the page and have to come back to see the change.
2. Comment like option create.
3. Layout change for web screen and mobile screen
4. Search Screen posts

final auth = FirebaseAuth.instance; //Creates instance of authentication database

  final FirebaseFirestore firestore = FirebaseFirestore.instance; //Creates instance of Firestore database

09:40 -> 15:33 ->39:00 ->58:54 ->1:21:00->1:31:00 -> 2:04:00 ->2:34:00 -> 2:41:20 -> 3:36:00 -> 4:21:30 -> 4:54:30 -> 5:10:00 -> 5:28:00 -> 5:52:00 -> 6:15:00

🡪UploadTask can be used to make it a future by adding whenComplete and onError method but for now it used to track how the files are added to storage. (storage\_methods.dart)

Following Code has been written for the user logged in (or say implementation of Shared Preferences):

StreamBuilder(

            stream: FirebaseAuth.instance.authStateChanges(),

            builder: ((context, snapshot) {

              if (snapshot.connectionState == ConnectionState.active) {

                if (snapshot.hasData) {

                  return const ResponsiveLayout(

                      webScreen: webScreen(), mobileScreen: mobileScreen());

                } else if (snapshot.hasError) {

                  return Center(

                    child: Text('${snapshot.error}'),

                  );

                }

              }

              if (snapshot.connectionState == ConnectionState.waiting) {

                return const Center(

                  child: CircularProgressIndicator(

                    color: Colors.white,

                  ),

                );

              }

              return const LoginScreen();

            })

            // const Scaffold(

            //     body: SafeArea(

            //   child: ResponsiveLayout(

            //       webScreen: webScreen(), mobileScreen: mobileScreen()),

            // ))

            ));

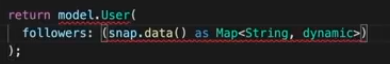
🡪Add flutter provider library. – ADDED

 name = (documentSnapshot.data() as Map<String, dynamic>)['username'];

The documentSnapshhot.data is converted into map and then from there, its *username* key is accessed (web\_screen.dart).

🡪  User get getUser => \_user!;

* Syntax to add getter for private field (user\_provider.dart)



To avoid this repeatedly in database.dart we create fromJson function which returns a user object and written this for common.

🡪MultiProvider helps to add multiple providers instead of adding consumer and provider throughout the code.

🡪We must call the refreshUser method somewhere in order to inform the app that user has been changed or not which is thus done in responsive\_screen.dart so that it can be done for both app and web screens.

UserProvider \_userProvider = Provider.of(context);

If this much is written then it will constantly listen to the changes from user provider which is not the case for now and thus we should do:

UserProvider \_userProvider = Provider.of(context, listen: false);

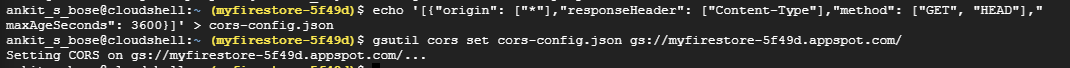
🡪To solve the error for UserProvider returns null value, I added a try catch block for the call of getUser (get method) in web\_screen or mobile\_screen.dart.

**🡪A page controller lets you manipulate which page is visible in a PageView.**

🡪Bottom Navigation Bar has been created under Scaffold with bottomNavigationBar attr and adding BottomNavigationBar() and using its onTap method to navigate between pages.

**dispose** method used to release the memory allocated to variables when state object is removed

🡪To load image from firebase storage you need to add cors policy permissions as:



🡪Add LinearProgressIndicator for taking time to post image and create a clearImage function to set the selected image file to null and also on back clear the image – done

 child: Row(

                    children: const [

                      Text(

                        "username",

                        style: TextStyle(fontWeight: FontWeight.bold),

                      ),

                      Text(

                        "  Hey this is me using Instagram!!",

                        style: TextStyle(fontWeight: FontWeight.normal),

                      ),

                    ],

                  ),

This part can also be done by replacing Row to RichText and then adding nested TextSpan objects

StreamBuilder(

          stream: FirebaseFirestore.instance.collection('posts').snapshots(),

          builder: ((context,

              AsyncSnapshot<QuerySnapshot<Map<String, dynamic>>> snapshot) {

            if (snapshot.connectionState == ConnectionState.waiting) {

              return const Center(child: CircularProgressIndicator());

            }

            return ListView.builder(

              itemCount: snapshot.data!.docs.length,

              itemBuilder: (context, index) {

                return PostCard(

                  snap: snapshot.data!.docs[index].data(),

                );

              },

            );

          })),

Stream builder builds the data stream and added it to the listview.

likePost method in FirestorePosts.dart is used to update the likes of insta posts in firestore.

Future<void> likePost(String postId, String uid, List likes) async {

    try {

      if (likes.contains(uid)) {

        store.collection('posts').doc(postId).update({

          'likes': FieldValue.arrayRemove([uid]),

        });

      } else {

        store.collection('posts').doc(postId).update({

          'likes': FieldValue.arrayUnion([uid]),

        });

      }

    } catch (e) {

      print(e.toString());

    }

  }

To show a formatted date on screen, intl package is used

DateFormat.yMMMd().format(widget.snap['pubDate'].toDate()),

Added to a text widget in post\_card.dart

kToolbarHeight - The height of the toolbar component of the [AppBar].

Adding a dependency called flutter\_staggered\_grid\_view for showing the posts in search user section.

🡪To create a **custom button** , you can add Container to the child of Button widget and then customize that container, with its style property and BoxDecoration().

TextButton(

        onPressed: function,

        child: Container(

          decoration: BoxDecoration(

            color: btnColor,

            border: Border.all(color: borderColor),

            borderRadius: BorderRadius.circular(5),

          ),

          alignment: Alignment.center,

          height: 27,

          width: 250,

          child: Text(

            text,

            style: TextStyle(color: txtColor, fontWeight: FontWeight.bold),

          ),

        ),

      ),

We could have shown values of Profile Screen from Provider object only but as this screen is used also for search screen that’s why we have to fetch values from firestore.

For Following and Followers, and **Profile Section’s Edit Profile and Follow Button**: (profile\_screen.dart)

For error of dependInheritedWidget or initState getting called later for provider you must specify listen as:

currUser = Provider.of<UserProvider>(context, listen: false).getUser;

To fetch value if following structure is there of DocumentSnapshot then:

 DocumentSnapshot myDoc = await store.collection('users').doc(uid).get();

      List following = (myDoc.data() as dynamic )['following'];

Both methods to print are same.

DocumentSnapshot snapUser = await FirebaseFirestore.instance

        .collection('users')

        .doc(widget.uid)

        .get();

    print((snapUser.data() as dynamic)['uid']);

    print(snapUser['uid']);

NOTE:

1. Learn Firebase Hosting: 30:39