APPENDIX

APPENDIX A CITATIONS:

Works Cited

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APPENDIX B EVIDENCE OF CONSULTATION:

All accounts are shortened to provide only relevant information.

F: Farhan (me)

A: Amaar (client)
D: Dad (Advisor)

Part 1Initial Client Consultation 2/7/23:

F: Hey Amaar, for my Computer Science class we are creating an application for an internal assessment, is there anything you might need?

A: Yeah, actually I have been having a hard time keeping up with my school work as I enter sophomore year, and would like to explore a better way to track my assignments so I can stay on top of my work.

F: That sounds doable. Is there a specific platform that you would like to focus on?

A: Yeah, I want to be able to use the app on my phone and iPad, and maybe my laptop later.

F: For now though you want to be able to use the app on your phone right?

A: Yeah, that's right.

F: Is there specific way you would like to organize them?

A: Yeah kind of similar to canvas, where it's sorted by classes.

F: Sounds good! What do you currently use to keep track of your homework?

A: In the past I have tried different apps like Microsoft to-do and Homework Pal, but they never met my needs and were too complicated or slow, compared to writing it down in a notebook.

F: So you want to replace the notebook with an app correct?

A: Yeah exactly.

F: Sounds good I'll follow up with you soon.

Part 2 Second Client Consultation 2/9/23:

F: Are there any specific things that you keep track of in your note book?

A: Yeah it's pretty basic, I just write down the due dates and the title and a short description.

F: Ok is that all you would like to track with this iOS implementation?

A: Yeah.

Part 3 Third Client Consultation 2/11/23:

F: Ok Amaar, now it's time to come with something called success criteria. This is basically just a list of ideas and of which you would like the application I create to meet.

A: Ok I get that.

F: Alright what are some ideas of what you want the app to do.

A: Well, I want to obviously add assignments. I don't want the app to bug out when I add different assignments. I want the interface to be clean and easy to create. The app should also be fast no delay, similar to my note book. I also want it to be all online so I can use my iPad too. I want to also be able to add classes into the app, and also delete the data for each class.

F: That's a great list. I can definitely do all of that.

Part 4 Initial Advisor Consultation 2/14/23:

F: Hey dad, do you have any ideas for this app I need to create. I am thinking of using react native instead of flutter this year, do you think that's a good decision?

D: No, Farhan since you already have experience in Flutter it's best to stick with what you know.

F: I guess, that's true.

D: Especially since you are planning to expand the scope compared to your previous approach it is very important that you focus on getting a working product to your client, with good quality.

F: This is some good insight; I think I will build the app with flutter.

Part 5 Client Consultation 3/4/23:

F: How do you like the UI Flows/Initial Layout?

A: It looks good! I like the overall flow of the app, and how it seems to look. The UI is pretty clean.

F: Any changes you would like to recommend?

A: Not really.

Part 6 Advisor Consultation 3/5/23:
F: How do you like the UI Flows/Initial Layout?

D: It looks good, however is a calendar and project approach really viable?

F: I think so, I think it's better to be a little ambitious than to hold the app back. I can always cut back if necessary.

D: That is true, but make sure that your client knows that you may not entirely fulfill the app and talk ensure you make the necessary functionality beforehand, and then get ambitious.

F: Sounds good, I'll keep this in mind as I continue to create the project.

Part 7 Client Consultation 3/6/23:

F: Hey Amaar, I know I discussed creating UI flows with a schedule and a project layout, I know this is quite ambitious, if I wasn't able to deliver the full app, but plan to extend this on a larger timeline would that be alright?

A: Yeah that sounds good, just show me the basic flow before you finalize the application build.

F: Sounds good, I'll show you as I develop. I will also develop some new UI Flows, to show you as a develop the app and feel free to tell me if you would like to make any changes.

Part 8 Client Consultation 3/16/23:

F: Hey Amaar I've worked some more through the development of the app and just wanted to run everything by you before I finish the app. How do you like the Nav Bar implementation.

A: Wow it looks really good. Better than I expected!

F: I am glad to hear that. This navbar allows for future expandability of the app as you request more features.

A: Wow that's pretty cool, I am really seeing this as a replacement for my notebook as time goes on.

F: Do you like the darkmode layout, I noticed that's what you use with a lot of your other applications.

A: Yeah, it's clean and easy on the eyes.

Part 9 Advisor Consultation 3/18/23:

F: Hey dad, do you think there is a good way to expand my app in the future.

D: Well since you've made a lot of progress, I see that the decisions you've made have really allowed for this app to develop in the future.

F: Yeah, I am glad we discussed my ambitious start, because with the amount of errors I have ran into have been really crazy. I am almost done with the main functionality.

D: Yeah, it's always important when developing for a client to have the main functionality first, then focusing on expansion.

F: I have really learned that through the development process.

Part 10 Client Consultation 3/18/23

F: Hey Amaar, I just wanted to talk about future expansion for the app and really develop a vision for the future of the app.

A: I really liked the original idea of collaboration, but that is much beyond the original scope of replacing my planner. Also I like the schedule idea, but at this time I understand this is probably more difficult than you anticipated.

F: Well based on the way the app is built, this is totally possible, and easy to implement, so I'll make sure to discuss with you after submission to see where we can take this app.

Part 11 Client Final Product Review 3/23/23:

F: Hey Amaar, it's the day you've been waiting for!

A: Is the app done?

F: Yes!

A: Really, I would love to see it.

F: Here you go.

*launches final app through Flutter Attach*

A: Wow this really looks good, I really do like the design of the app and the user flow. Making accounts is easy and so is creating assignments. The app is also pretty self explanatory which I think is good.
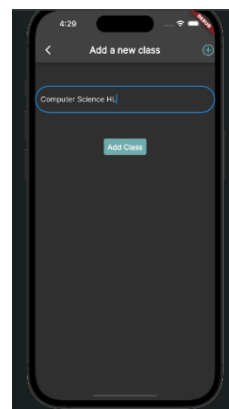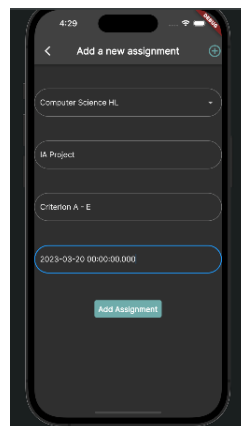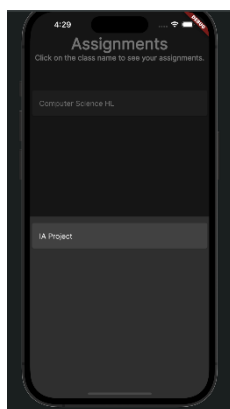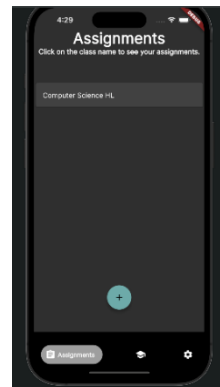
tries it on his iPad

A: Wow, it works cross platform too? That's pretty cool, exactly what I wanted.

APPENDIX C UI PROGRESSION:

Part 1 Initial UI Development:
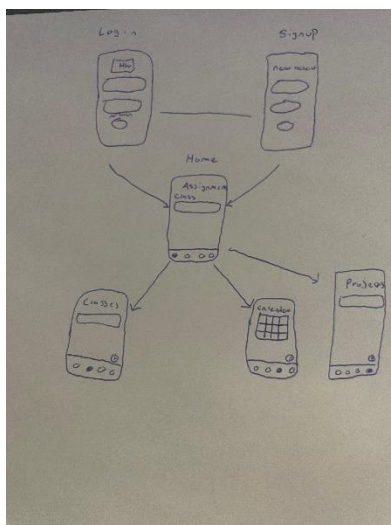
Part 2 Final UI Development:
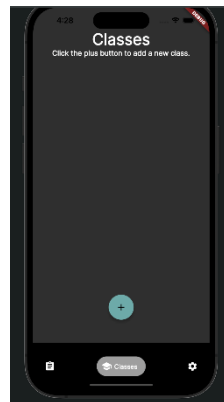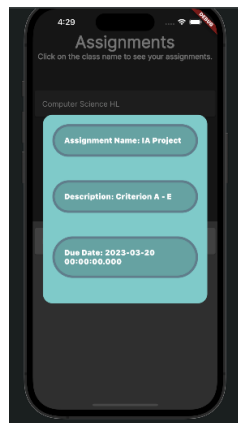
APPENDIX D APP DESIGN PROGRESS (EXCEPT DOCUMENTS IN DOC B):

Part 1 Initial Flowcharts:

Part 2 Secondary Flow Charts:

Part 3 Primary UML:

```
                                    ┌─────────────────────────┐
                                    │        Main.dart         │
                                    ├─────────────────────────┤
                                    │ +Stateful Widget MyApp  │
                                    ├─────────────────────────┤
                                    │ +run app main() async   │
                                    └─────────────────────────┘
```
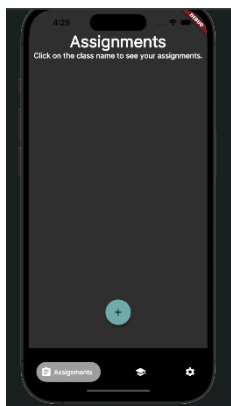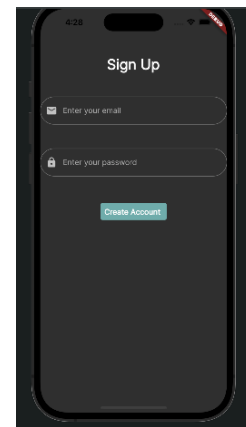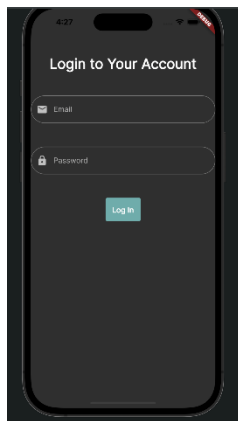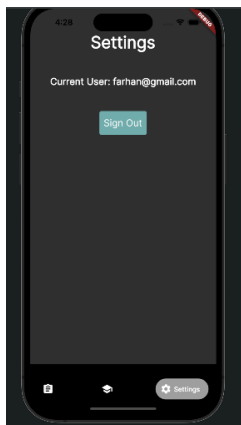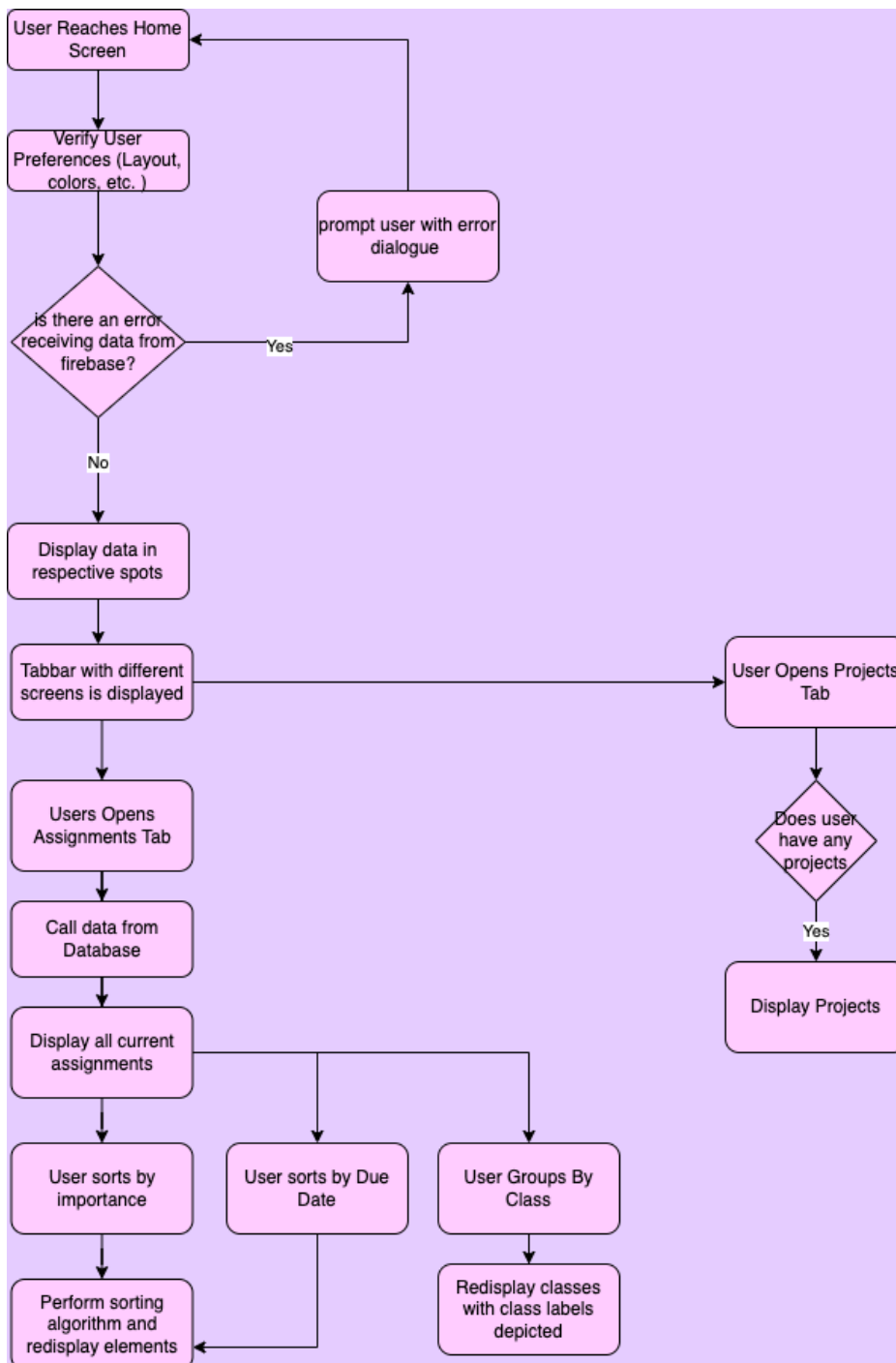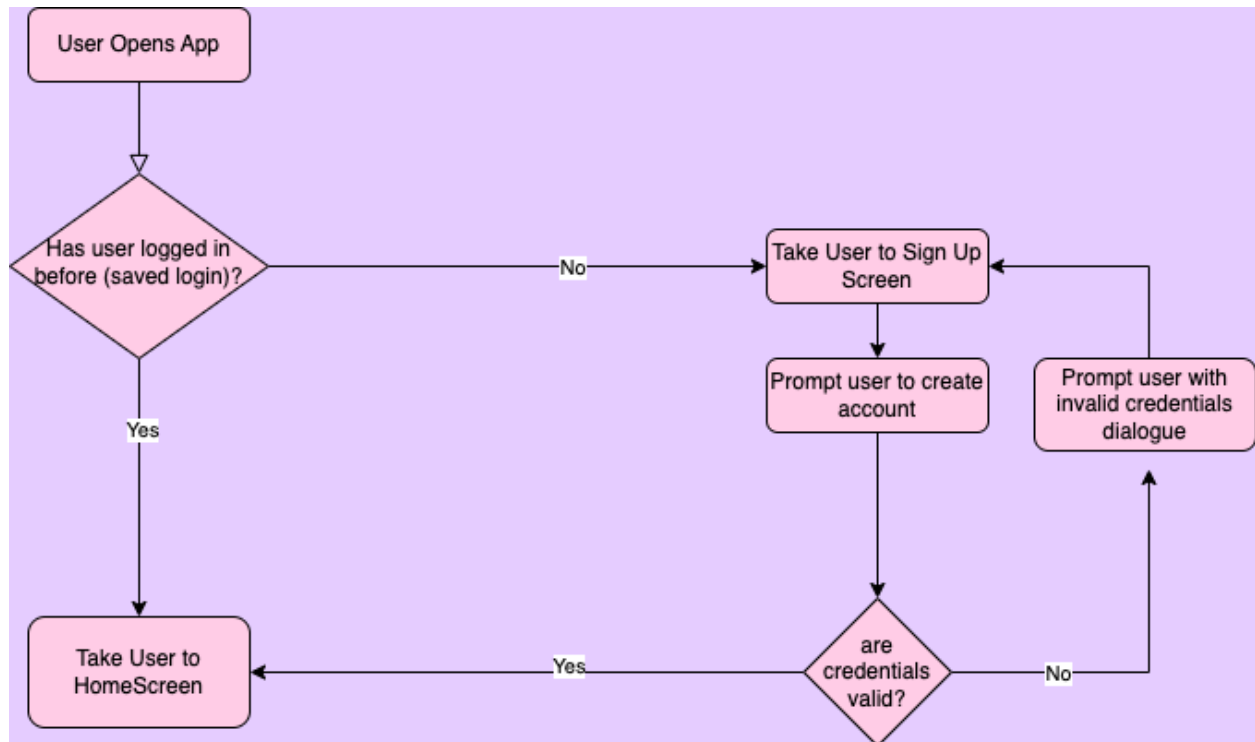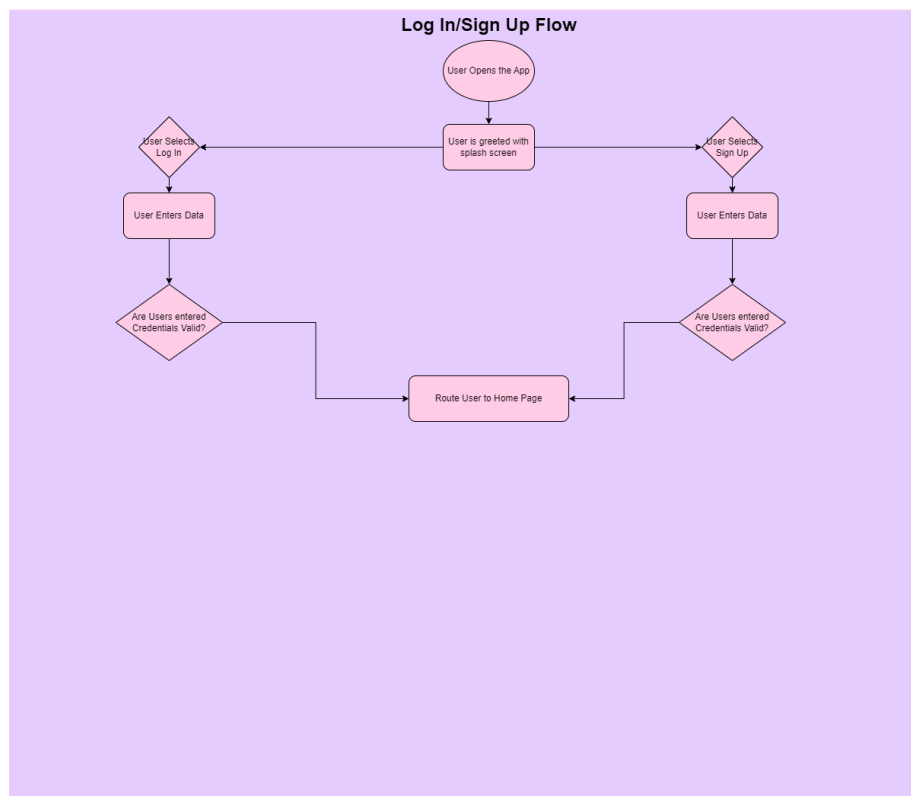
Main.dart
- +Stateful Widget MyApp
- +run app main() async

LogIn.dart
- +Stateful Widget LogIn
- +Firestore Auth
- -TextEditingController emailController
- -TextEditingController passwordController
- -void firebaseSendOff() asyn

SignUp.dart
- +Stateful Widget SignUp
- +Firestore Auth
- -TextEditingController emailController
- -TextEditingController passwordController
- -void createAccount() async

Calendar.dart
- +Stateful Widget Calendar
- +Cards card
- +TabelCalendar

Home.dart
- +Stateful Widget Home
- -List<Widget> tabs
- -void navigator(int index) async

cards.dart
- +Methods methods
- +void display(BuildContext context, int index, QuerySnapshot <Map<String, dynamic>> da String className, String id)

Assignments.dart
- +Stateful Widget Assignments
- +Cards card
- -String? documentId
- -String classWithin

Classes.dart
- +Stateful Widget Classes
- -String className
- -int documents
- +Methods methods
- -Future<int> async returnDoc(dynamic data, int index)

Methods.dart
- +void displayError(BuildContext context, Exceptionerror)
- +Future<void> addAssignment(BuildContext context, String className, MapADT<String, dynamic> assignmentData) async
- +Future<void> addClasst(BuildContext context, String className)
- +deleteClass(String className) async

Uses

Part 4 Secondary UML:

Part 5 Gantt Chart:

IA
GANTT CHART

	2/7/23	2/14/23	2/21/23	2/28/23	3/1/23	3/8/23	3/15/23
CONSULTATION	2/7/23 - 2/11/23						
FLUTTER SET UP		2/15/23 - 2/17/23					
CRITERION A DRAFTING			2/17/23 - 3/1/23				
DOCUMENT B DRAFT				3/3/23			
CODING					3/3/23 - 3/14/23		
DOCUMENT C					3/3/23 - 3/15/23		
DOCUMENT D						3/15/23 - 3/17/23	
DOCUMENT E AND APPENDIX						3/17/23	
FINAL CLIENT CONSULTATION						3/18/23	
DEBUGGING						3/19/23	
SUBMISSION						3/20/23	