Criterion B: Record of tasks

Include at least 40 detailed items of the work you do. You can include work on the sections of this document, client/advisor time, etc. Be detailed, list time in hours,

You have 30 hours of in class time that you should account for, but you should also be spending at least another 10-20 hours outside of class and account for that as well.

Task number	Planned action	Planned outcome	Time estimated	Target completion date	Criterion
1	Write text to client, asking for elaboration on problem & feature requests	Useful information will be received, which can be elaborated on in future, in person meetings	0.5 hours	1/24/2022	A
2	Read and record client's responses, and ask further questions	There should be no confusion on either side about what the app should do and how the design process works	0.33 hours	1/25/22	A
3	Meet with advisor to discuss the client's problem and possible solutions	Initial solutions will be ranked by their feasibility, providing an indicator of which to pursue	0.5 hours	1/26/22	A
4	Research Flutter and Dart Programming, and how it is used for IOS	If the user desires an IOS application, this research will allow me to begin quickly on initial code	0.85 hours	2-26-22	C
5	Finalize proposed solution and success criteria	Application device and language will be finalized, as well as app functions	0.75 hours	1/27/22	A
6	Compile initial discussions with	All components of criterion A will be	0.5 hours	1/27/22	A

	client and design solution into the Criterion A template and submit	submitted and accounted for			
7	Research how Strava bike rides are saved, and how the text file is structured	My new understanding of GPX file structure will allow me to better design flowcharts and algorithms	0.75 hours	1/28/22	B
8	Begin installing flutter on my laptop	My coding environment will be close to ready to use. I can bring my app code to and from school	0.85 hours	1/29/22	N/A
9	Discuss user interface architectural considerations with other students	I should solidify my application's state management method, and view the thinking processes of other students	0.5 hours	1/31/22	N/A
10	Complete construction of User-Case Diagram	UCD should display how the user interacts with the app, and its expected outputs	0.75 hours	2/1/22	B
11	Begin construction of the application flowchart	majority of the flowchart should be finalized by the end of today's class	0.5 hours	2/1/22	B
12	Attend flutter introduction held by Mr. Pierson at flex time	I should have flutter fully set up on my device and ready to be used	0.75 hours	2/2/22	N/A
13	Finish construction of	Flowchart should be finished,	0.5 hours	2/3/22	B

	the application flowchart	providing insight on the app's order of functions			
14	Create record of tasks using the template provided on canvas	Currently, I have been recording in a simple excel document. I will transfer it to the IB template	0.5 hours	2/4/22	B
15	Construction of Class Diagram	included variables, methods, and encapsulation will be fully planned out	0.75 hours	2/7/22	B
16	Creation of success criteria test plan	Afterwards, each success criteria will have a clear way of determining if the app succeeded in each specific field.	0.75 hours	2/8/22	B
17	Create explanation paragraphs for each major algorithm used by the application	I will gain a better understanding as to how I am going to implement each method in the application, and what parameters and return types each one possesses.	0.75 hours	2/10/22	B
18	Create first version of wireframe	First layout of the app should be finalized.	0.5 hours	2/10/22	B
19	Finish initial data structure decisions, and map out how algorithms will function	After today, all elements of Criteria B will be completed	0.85 hours	2/14/22	B

20	Email Client with initial Diagrams and design plans	Given feedback will be used to adjust plans of code and UI layout.	0.5 hours	2/26/22	B
21	Finish setting up Android Studio on my laptop	I now have a means of coding in class, as well as home.	0.75 hours	2/15/22	N/A
22	Attend flutter model and viewmodel demo in class	gain a better understanding of flutter architecture and standards	0.75 hours	2/17/22	N/A
23	Meet with advisor with initial diagrams and flowcharts	Receive insightful feedback which will be used to adjust designs before development.	0.85 hours	2/28/22	B
24	Meet client and present updated wireframes and diagrams	Receive feedback which will refine the scope and focus of the app, and improve the app's performance towards the success criteria	0.5 hours	2/28/22	B
25	Coding the login page of the app	Finish the home page of the app, which will direct the user to all other pages	0.75 hours	2/28/22	C
26	Create the "hub" page, capable of routing the user to other pages, as well as signing out	I will be able to sign into the app with the "test dummy" username and password, and be directed to the hub.	0.85 hours	3/1/22	C
27	Add routing methods to the hub viewmodel, so the buttons	The buttons within the hub view will now actually do something useful,	0.5 hours	3/2/22	C

	can actually do something	rather than just appear.			
28	Research further how to parse important information from GPX file	I will be able to develop a rough algorithm capable of parsing distance, speed and elevation from a GPX route file	0.85 hours	3/3/22	C
29	Research how to and then create toJson methods for all of my created objects	These methods will allow the app to convert objects to Strings and save them locally	0.75 hours	3/4/22	C
30	Research how "Map" object sets work, and how keys are used to select set elements	Users will be saved to Shared preferences as a map, which allows for quick user restoration	0.75 hours	3/5/22	C
31	Import and integrate Shared Preferences into the flutter app	THe Json strings will now be able to be saved locally through Shared Preferences, and retrieved on later app startups.	0.85 hours	3/6/22	C
32	Finish coding the login and newUser pages now that shared preferences are integrated.	The entire login process is finished, capable of performing its purpose.	0.75 hours	3/7/22	C
33	Debug GPX file path and Activity initialization Error	Right now, The application cannot correctly initialize Activity Files because the app cannot locate GPX files with their file paths. Today, I will	0.78 hours	3/8/22	C

		meet with Mr. Peirson to fix this problem			
34	Work on the "Add Activity" page, create text fields for user input	The User will now be able to assign all important statistics to an activity instance	0.9 hours	3/9/22	C
35	Create the "delete activity" page of the app.	The application will now be able to remove activities from user's json files, adjusting their accumulated stats as necessary	0.75 hours	3/10/22	C
36	Troubleshoot instances where activities continue to affect the accumulated statistics after being deleted	Deleting activities will actually fully remove them from the app, and they will not affect the accumulated stats	0.9 hours	3/11/22	C
37	Learn about the process of acquiring a Google Maps API Key, and implement it into the app	I will acquire a Google Maps api key with an educational license, so I do not have to pay any money. This key will allow access	0.75 hours	3/12/22	N/A
38	Update client with progress of the app, and present initial prototype	Client will provide insightful feedback covering the app's strengths and shortcomings	0.85 hours	3/13/22	Appendix

39	Today, I will add conditionals to all of the textfields of the app, which throw an AlertDialog when the string is in the incorrect format	The app will be ready for rare scenarios when the user inputs values that cannot be accepted. This extensibility is a requirement of criteria D	0.85 hours	3/14/22	D
40	Today I will attempt to implement a google apps widget into my program, that can display real life-locations and geography	A widget will represent areas which the user has biked. Routes can be added to this widget, and be visually displayed to the User	0.80 hours	3/15/22	C
41	Implement the "Polyline" class into my code, which represents routes that can be displayed in a GoogleMaps widget	Creating a connection between GoogleMaps widgets and Polyline objects is what will allow me to have a visual representation of each activity route	0.75 hours	3/16/22	C
42	Meet with my advisor to look for solutions to Flutter not being able to recognize any file paths that it is given	After this issue is fixed, the app will actually be able to draw information from GPX files.	0.90 hours	3/16/22	C

43	Begin writing Criteria C of the IA project	A small list of the major techniques I used will be added to my documentation, along with code samples and diagrams	0.85 hours	3/17/22	C
44	Install and learn how to build the program from XCode	Using XCode, I now be able to build and deploy the application to IOS devices, just as the client wants	0.90 hours	3/17/22	C
45	Add conditionals and try statements to the code, which handle exceptions and bad input	The user will be unable to pass in any input which throws an error and crashes the app now.	0.8 hours	3/18/22	C
46	Resolve bug where Polylines are invisible and not show in GoogleMap widget	Routes will actually display now. Polylines will work as intended.	0.75 hours	3/19/22	N/A
47	Create Map widget for the compare activities screen, which has different code	The comparing routes will be displayed in different colors, on the comparison page	0.75 hours	3/22/22	C

48	Create exception handling for if the user tries to load "compare activities" page or "accumulated statistics" page without any added activities	The user will be unable to access functions which require added activities until they actually add one.	0.8 hours	3/24/22	C
49	Research Flutter IOS file structure and why "CocoaPod" is throwing an error during build	All issues preventing me from deploying the application will be resolved.	0.8 hours	3/27/22	N/A
50	Create IOS application icons for the app.	The user will now be abled to easily identify the application from their IPhone home screen.	0.85 hours	3/27/22	N/A
51	Deploy Application to IOS, and set up device to allow foreign applications	Application will be fully finished and able to be installed on the client's phone.	0.75 hours	3/28/22	D
52	Update Appendix with new sources and client / advisor meetings	Appendix will now better reflect the current state of the app and where I am in developement	0.5 hours	3/18/22	Appendix

53	Record video of the application running, as well as handling different exceptions	The main submission element for Criterion D will be completed.	0.75 hours	3/18/22	D
54	Update Criteria B with final flowcharts and UI designs	Criteria B will be fully finished	0.5 hours	3/19/22	B
55	Meet with client to present final product	Client will provide feedback and where to improve for future iterations after the app's timeline.	0.5 hours	3/20/22	E
56	Meet with advisor for final product feedback	I will receive any last minute changes necessary to the application, and any further features that could be added will be recorded in Crit. E	0.8 hours	3/20/22	E
57	Wrap up Criterion E	All criterias of the app are finished, project is ready for submission	0.75 hours	3/21/22	E

Total Time: 40.81 hours