Date	Date	Number of Hours	Description of Work Done
1/20/25 9:00 PM	Jan 20, 2025	1	Project Proposal Draft writing - Started the introduction section.
1/21/25 6:00 PM	Jan 21, 2025	2	Project Proposal writing - Finalizing draft writing -> Proposed Research Project, Project Planning and Timeline, Project Contract - Proposal in Github Repo -> ReportsAndDocuments -> SimoneL_Proposal.pdf
1/22/25 10:00 AM	Jan 22, 2025	2	Figma initialization, developing wireframes, general idea of screens
1/22/25 2:00 PM	Jan 22, 2025	1	Wireframe for homepage
1/24/25 7:30 PM	Jan 24, 2025	1	Wireframing for quiz screens
1/25/25 12:00 PM	Jan 25, 2025	0.5	Finalized proposal, ready for submission
1/27/25 7:00 PM	Jan 27, 2025	2	Wireframing screens: interactive maps, chatbot, my trips -> Github Repo -> Misc -> Figma Wireframes.png
1/31/25 3:12 PM	Jan 31, 2025	3	Research on Reactive Native Expo vs CLI, environment setup and ways to start a project + gluestack v2 ui. Decided on React Native CLI as it was more suitable for the project scope
2/1/25 9:00 AM	Feb 01, 2025	2	Started and added frontend project shell to github. Encountered issues with the folder structuring when adding to github: Empty folder was being pushed to github instead of with the code. Had to restructure multiple times before successful
2/6/25 10:00 PM	Feb 06, 2025	1.5	Started on the Quiz Screen component: Adding pressable buttons and sorting out the general layout of the text and button
2/7/25 6:00 PM	Feb 07, 2025	2.5	Completed QuizScreen and the styling file for it. Added: - Back/Next button for navigation between questions. - Back button not visible on the first question - Progress bar to visually represent questions done/left - Color change when button is selected - Have a couple of example questions set as placeholders

2/8/25 3:00 PM	Feb 08, 2025	2	Started on the layout of the HomeScreen as well as its corresponding styling file.
			Added:
			- Search bar (text input)
			- Horizontal scroll for 'My Trips' (with placeholder trips set + default card for when there are no current trips added)
			
			Problems encountered:
			- Had trouble with using Carousel (react-native-snap-carousel)
			  - The dependencies had conflicts and version compatibility issues, specific issues with propTypes
			  - Nothing was working
			Alternate solution:
			- Used FlatList with horizontal scrolling instead

2/8/25 9:00 PM	Feb 08, 2025	2	Started on the bottom navigation menu -> Problem: Tried using external library for icons but icons would not show up properly (Question mark in the middle of a box shows up) - Issues with linking fonts with Xcode Alternate plan: For now I am using emojis as a placeholder icon, will revisit adding external library of icons at a later time Bottom Navigation now has seamless navigation between Home and Quiz screens -> Quiz screen to be replaced at a later time, currently acting as a placeholder for other screens
2/11/25 11:30 PM	Feb 11, 2025	2.5	Started on the backend for the quiz MVP -> quiz model, schema, api and routing Problem: Had trouble with the database setup/running it on my local machine and connecting to postgresql Solution: After consulting with Russell on the setup, server is able to run on my local device. Next step is to make sure that front end is connecting properly to the back end and able to pass information -> update to local database and make sure it is functioning as intended

2/13/25 8:00 PM	Feb 13, 2025	3.5	- Built the look for the quiz results on Figma
			- Adding the code and styling for the results display to QuizScreen.js and QuizScreenStyles.js
			  - Will dynamically display the type of traveler depending on the quiz scoring logic from the quiz
			  - Added an "x" button that will take user back to the home page after seeing the results
			
			Problems Encountered:
			- Tried to do a share button functionality where user will be able to save the results as an image to their camera roll. This didn't work out as there were Xcode dependencies that conflicted with my system. Had to remove this functionality. Can revisit once the MVP is complete
			- Dependencies that were added to do this share implementation were not completely erased and repeatedly threw errors as it was still somewhere in the files.
			
			Solutions and Alternatives:
			- Had to remove node modules and reinstall dependencies and pod files multiple times to get rid of the errors.
			
			Next Steps:
			- Send quiz results to the backend and save it to the database
			- Have the option to retake quiz and erase results previous from the backend
			- (Optional once MVP is complete) Retry the share functionality

2/15/25 1:30 PM	Feb 15, 2025	2	Trying to send data to the backend and save the travel style pertaining to the user - Using AsyncStorage to save and retrieve the user_id upon successful logins Problem: - There were AsyncStorage runtime errors due to it not being properly linked - This was due to Cocoapods gem error -> broken or outdated Ruby gem Solution: - Reinstalled and updated ruby gem - Reinstalled cocoa pods - Reinstalled iOS pods - No runtime errors for AsyncStorage now Trying to retrieve userId from the user's login session - Created a method in QuizScreen.js to retrieve userId - Successfully able to retrieve userid Trying to send quiz results to the backend - Modified api for posting quiz results - Created method in QuizScreen.js to send results to the backend Problem: - 404 Error: api endpoint does not exist or incorrect Next step: Fix the connection to API endpoint
2/16/25 2:00 PM	Feb 16, 2025	1.5	Fixing the connection to API endpoint - Need to send the quiz results to the back end Problem: - 404 Error: api endpoint does not exist or incorrect Solution: - main.py had "/quiz_results" as the router prefix - quiz_routes.py had "/quiz_results" as the route - To send the results to the quiz_results table, the quiz results endpoint should be `${API_BASE_URL}/quiz_results/quiz_results` instead of '${API_BASE_URL}/quiz_results` - Changed the endpoint to "/" --> proper full endpoint is now `${API_BASE_URL}/quiz_results/` - The results are now stored in the quiz_results table with the correctly retrieved userId and travelStyle When the user redoes the quiz, the results save as a new row in the table rather than updating the existing record - Need to update the record instead of making a new row - Modified POST "/" in quiz_routes.py to check if a result already exists for the user, update it if it exists - Now successfully modifies the record instead of creating a new one Next Steps: - Add frontend option for user to retake quiz. - Fix scoring logic for when users navigate backwards during the quiz. - Users should not be able to move on to the next question without selecting an answer

2/17/25 12:00 AM	Feb 17, 2025	1	Added frontend option for user to retake quiz: - Added retake quiz button code and styles - Added a method to trigger onPress to handle resetting all scores quiz UI - New quiz results are being sent to backend, updating the user's travel style Next/Submit buttons are 'disabled' without selecting an answer - Added disabled button styling - Modified handleNextQuestion() to prevent moving forward when selectedAnswer is null Next Steps: - Fix scoring logic for when users navigate backwards during the quiz - When nagivating backwards through questions, retain previously selected answer
2/17/25 4:15 PM	Feb 17, 2025	0.5	Analyzed and summarized survey results to determing high/medium/low priority features for the application.
2/17/25 4:45 PM	Feb 17, 2025	1.25	Navigating backwards through questions, UI retains the previously selected answer - Used an array to track selected answers instead of a single selectedAnswer state - Updated handleAnswerSelection to store answers in the new array (which the index corresponds to the question index) - Set the selected answer when navigating to the previous question - Modify handlePreviousQuestion to retrieve and display the stored selection. Problem: - Navigating forwards AFTER navigating backwards retains the selected answer previously selected Solution: - When moving forward after going backwards, clear future selections to ensure past choices aren't remembered. Fix scoring logic for when users navigate backwards during the quiz. The current scoring logic does not automatically adjust the previous selection's score when changing an answer. Instead, it only adds points when selecting an option but does not remove points when an answer is changed - Modified handleAnswerSelection to first try to subtract points from the answers that are being changed Problem: - This method of scoring retained the scores from the questions that remained unchanged and added on an additional point for the new selection (whether from the same category or not) Solution: - Modify handleAnswerSelection to build scores from the remaining selections instead of subtracting points one by one - Modify handlePreviousQuestion and handleNextQuestion to reset scores of future selections when moving forward after going back.
2/20/25 7:00 PM	Feb 20, 2025	2	Implementing personalized recommendations feature - Built a FastAPI route (/places/recommendations) to fetch places based on user preferences. - Integrated Google Places API to get places based on user travel style (quiz results). - Stored cached places in PostgreSQL to reduce API calls. Problem 1: 422 Error (Unprocessable Entity) - FastAPI expected user_id as an integer, but it was sent as a string. Solution: - Ensured user_id is an integer Problem 2: 404 Error - FastAPI couldn't find user_id in quiz_results, even though it existed in PostgreSQL - The backend was using the local database instead of Heroku. - FastAPI was querying the wrong database (local waypoint_db instead of Heroku). Solution: - Connected FastAPI to Heroku Postgres by updating .env database_url Problem 3: API Route Conflict - FastAPI treated /recommendations as {place_id}, causing a 400 Bad Request. - The dynamic route @place_router.get("/{place_id}") was above /recommendations, so FastAPI assumed "recommendations" was a place_id. Solution: - Reordered routes in place_routes.py !!Confirmed API is working!! - FastAPI backend is using Heroku Postgres instead of local PostgreSQL. - Recommendations API (/places/recommendations) now works as expected.

2/20/25 9:00 PM	Feb 20, 2025	2	Built Recommended Places screen and styling Connecting frontend UI to make API requests to display the recommendations: - Developed methods to fetch recommendations - Developed filter options - Switched back to local to work on the app Problem: app UI was not displaying results - The frontend was now receiving an empty array upon making requests Solution: - Debugging logs indicated that google places was denying the requests due to invalid api key - Realized Heroku was configured with google places api but not locally - Added API key in .env and was able to retrieve the recommendations which reflected in the UI Next Steps: - Images for the recommended places are not found- need to fix - Refine filters - Make sure recommendations work for all travel styles
2/21/25 3:00 PM	Feb 21, 2025	2	Fixing the photo display on the recommendations screen - Logs show that the image can not be found - At first, thought it was the API key not being used in the frontend so it was restricting access to images, but upon correcting that, images were still not loading - Adjusted the method for image rendering a couple times and one finally worked (not too sure why) - Images now loading with the recommendations

2/21/25 5:00 PM	Feb 21, 2025	1	Making sure recommendations work for all travel styles:
			- Matching the different travel styles correctly to TRAVEL_STYLE_MAPPING
			- Had to rename the some of the keys to match the recognized travel styles
			
			Adjusting the displayed emoji for each travel style
			- Tried to do multiple emojis for combined travel styles but it offset the styling
			  - Alternative: Selected one emoji best fit for different combined styles instead
			- Fixed the missing emoji for "No travel style"
			- Fixed the awkward wording for some of the travel styles such as "You are a You didn't align with any specific travel style Traveler"
			  - Modify the return inside QuizScreen.js so that the formatting dynamically adjusts
			
			Next Steps:
			- Recommendations displaying for mixed travel styles
			- Recommendations fetch new results after travel style changes
			- Make sure the filters work

2/23/25 5:00 PM	Feb 23, 2025	4	Midterm Report: Title page (complete), Introduction (complete), summary of initial proposed project (complete), changes to the proposal (complete), UPDATED project planning and timeline (IN PROGRESS: individual responsibilities; COMPLETED: Gantt chart, new proposed timelines, milestones, deiverables), Implemented Feature (IN PROGRESS: Login, Recommendations, Interactive Maps; COMPLETED: Quiz), Work Logs (IN PROGRESS), Closing and References (IN PROGRESS) Proposal changes: - Gantt Chart - Responbilities - Timelines - MVPs Priority

2/26/25 9:30 AM	Feb 26, 2025	2	Fixing filters Problem 1: Clicking a filter does not change the UI - Passing 'places' instead of 'filteredPlaces' in the FlatList filtering logic Solution: Passed the correct name Problem 2: Clicking a filter does not show anything (blank page) - Added debugging logs to check - Debugging showed that theres a mismatch between frontend filters and backend categories/frontend filtering is based on unmapped categories - Tried remapping google places categories -> didn't work Solution: - Realized the retrieved google places for the current location were not related to any of the filters. - Changed one of the retrieved places to map from the raw API response category to one of the filter names and confirmed that it works. - For now, will have random google places categories map to the current applicable filters due to default location being set for recommendations retrieval and none matching the filters (ex. Mapping "museum" -> "spa") - This filtering is to be integrated with interactive maps and will be changed.
3/3/25 5:00 PM	Mar 03, 2025	1.5	Combined the Interactive maps screen and the Recommendations screen - Both components working as intended - Both filters working separately Problem: Recommendations don't change with the travel style filter change for the maps Next Steps: - Make sure the recommendations pull from the travel style selected - Have both filters working together
3/3/25 8:40 PM	Mar 03, 2025	3	Added OpenAI dependencies - Added to the backend for security reasons - Since calling from the backend, added chatbot_routes, and updated main.py to include the new router Problem: openai version and syntax incompatibility - New syntax with the latest openai version Solution: - Fixed the syntax to match the latest version of openai - cURL response confirms api is working Added Chatbot Screen and simple styling - Able to send request to backend and generate AI response Next steps: - Style the Chatbot - Chat messaging needs to be shown in order - Loading visual to indicate the answer is being generated - Make refinements to provide tailored information

3/5/25 2:30 PM	Mar 05, 2025	5.5	Fixing the Bottom Navigation Icons: - Using Ion Icons - Previously tried to use depreciated version of IonIcons and had trouble displaying the icon properly - Installed latest version of react native vector icons and re-installed pods Problem 1: - Having the same issue displaying icons: square with '?' In the middle Alternative Solution: - Switching to FontAwesome6 for icons - Following readme for fontawesome6 to carefully install packages Problem 2: runtime error, vector icons module not found - Lots of errors with dependencies - Square icon with '?' - Tried to try with fontawesome5 - Nothing would work - Broke the node_modules package Solution: - Had to revert to original code Redoing the TabBar - Elevated look to the TabBar Problem: - Icons were getting cut off - Icons and label were shifted upwards and not centered Solution: - Played with padding a lot and finally got a good match
3/5/25 11:30 PM	Mar 05, 2025	4.5	Adding "More" menu - Small popup animated window when "More" tab is clicked - Used Animation for the window - Unable to navigate yet Blurring the background when the "more" menu is toggled on - Using react-native-community/blur Problem: - After careful and correct installation of dependencies and pods, it showed that the component <BlurView> was not working Solution: - Manually add blur library to Xcode and rebuilt app Adjusting the "More" menu - Able to toggle blur off and close popup when tapping outside the menu popup - Moved Settings and Profile to the popup navigation - Added InteractiveRecommendations and Chatbot to Bottom Tab Bar Problem 1: Tried to make the tab bar collapsable; screen background became empty Solution: - Using props to pass the hideTabBar and showTabBar methods to every screen Problem 2: Not every screen is scrollable Solution: - Using timeout option instead - Bottom tab times out after 5 seconds of inactivity to hide the screen Problem 3: InteractiveRecommendations flat list does not scroll behind the bottom tab bar Problem 4: Project build broke
3/6/25 4:00 AM	Mar 06, 2025	1	Retrieved lost progress: Toggling blur, adjusting popup menu, timeout option
3/7/25 12:00 AM	Mar 07, 2025	1.5	Focus: Chatbot Making the chatbot and user messages send in a normal texting format - Most recent messages on the bottom instead of on top of older messages - Order of the messages are preserved inside setMessages() without overwriting previous updates - Latest messages always appearing at the bottom by using 'inverted' on flatlist Next Steps: - Style the Chatbot - Loading visual to indicate the answer is being generated - Make refinements to provide tailored information

3/7/25 11:30 PM	Mar 07, 2025	2.5	Configuring the AI to provide tailored information - Added content body to the role of the system (AI) - Ai is defined as a travel assistant with a default location in Vancouver BC - Chatbot screen retrieves user's travel style and tailors recommendations to the user's style Problem: Had trouble sending the travel style to the backend Solution: - Retrieved user travel style from from async storage and stored in state variable - Passed state variable to the backend Next Steps: - Style the Chatbot - Loading visual to indicate the answer is being generated - (If time permits) Tailor responses with weather information
3/9/25 12:00 AM	Mar 09, 2025	2.5	Added Chatbot and user avatar - Indicate Chatbot/user message - Styled and positioned avatars in desired position - Adjusted styling for message responses Styled the text input box - Changed the styling to a more stylish look - Send icon instead of text button Added a customer Header for the Chatbot Added animated "…" to indicate to users when chatbot is fetching a response - useState isTyping to track when the bot is processing a response - Before sending in a request, insert "…" as a placeholder message from the bot - "Animate" the "…" by cycling through "." ".." "…" every 500ms while isTyping is true - Remove "…" when the response arrives and replaces with the real message Tried to retain bottom navigation on profile, settings, and chatbot screens Problem: - Navigation is separate from Tab Navigator - Tried to use separate AppNavigator - Tried to use hidden Tab Screens - Could not resolve; will revisit Next Steps: - (If time permits) Tailor responses with weather information
3/9/25 1:00 PM	Mar 09, 2025	1.5	Problems: - No consistency in navigating between screens (some using Tab Navigation, some using Stack Navigation) - Back swipe is not working on Tab Screens - Bottom Navigation Bar is not showing up on screens in the "More" menu Solution: - Discarded Tab Navigator method - Strictly using Navigation and routes as custom bottom navigation - Changed main stack and app navigator stacks Results: - Consistent navigation - Back swipe working on all screens - Bottom navigation shows up on all screens unless specified - Flat list in InteractiveRecommendations is scrolling due to these changes

		1.5	Focus: Navigation No active state on the Bottom Navigation - Adding detection for active screen Problem 1: Incorrect Active Screen Detection - activeRouteName.name === item.name; was incorrect because activeRouteName was already a string, so .name was invalid. - This caused isActive to always be false, meaning no tab was ever marked as active. Solution 1: - Changed const isActive = activeRouteName === item.name; to directly compare the string values Problem 2: Navigation Structure Issue - By using navigation.navigate("Main", { screen: item.name }), the active screen was inside a nested stack. - route.name only gave the top-level screen, so it wasn't detecting the focused tab correctly. Solution 2: - Used navigation.getState() to extract the focused screen inside the "Main" stack Results: - Active state added - Activate state shows label and changes background colour
3/9/25 1:00 PM	Mar 09, 2025		
		1	Focus: Navigation Ensure HomeScreen is active on initial load - Default activeRouteName to "Home" on first load - Ensure "Home" is highlighted on first load before navigation updates. - After navigation changes, activeRouteName updates normally. Problem 1: - The first useEffect runs before navigation state is fully loaded, so "Home" is not recognized as active. - Setting active state inside useEffect([navigation, route]) does not immediately reflect the correct screen. Solution: - Use useFocusEffect to detect the correct active screen on initial load. Problem 2: - Home is recognized as active on initial load but navigating to other screens do not update the active state Solution: - use setTimeout() to delay updating active state until navigation completes because navigation and state updates are happening out of sync
3/9/25 6:30 PM	Mar 09, 2025		
		2	The filterScrollContainer disappeared once the bottom nav got added back to the screen Problem: - Through debugging, found that the Flatlist in InteractiveRecommendations got pushed up and covered the filters Solution: - Reduced Flatlist sizing - reduced minimum height of the scroll container so that it stops scrolling vertically Changed the splash screen title to WayPoint Tried adding splash image logo - Adding and editing in xcode Storyboards Problem: - Image will not load - Image was in the wrong place Solution: - Moved image to images.xcassets INSIDE xcode.workspace
3/10/25 12:00 AM	Mar 10, 2025		

3/10/25 7:00 PM	Mar 10, 2025	0.5	Limiting Chatbot response - OpenAI generates too many recommendations and suggestions: took too much time to process and text is too long - Limiting chatbot recommendations to 3 suggestions - Added additional prompt to the full system prompt that is sent to openai Added an initial load in message from chatbot - Use setTimeout() inside useEffect() - Introduction message displays after 1 second
3/10/25 8:30 PM	Mar 10, 2025	3.5	Researching - OpenWeatherMap API calls: Need geographical coordinates (lat, lon) - Direct Geocoding API to get geographical coordinates (lat, lon)- Requires city name, state code, and country code for accurate results of coordinates - react-native-geolocation-service library - Need to request phone's geolocation feature Location Permissions - Creating a screen to allow user to enable location services - Created styling for the LocationPermissions screen - Modify Podfile to set up script for permissions - Add permissions to Podfile Problem: - Podfile was not recognizing RNPermissions/LocationWhenInUse - Throw an error when trying to access permissions Solution: - Modified podfiles and removed RNPermissions/LocationWhenInUse and RNPermissions/LocationAlways to only use RNPermissions - The core RNPermissions pod dynamically manages location permissions Next Steps: - Use retrieved latitude and longitude coordinates to call OpenWeatherMap API

3/12/25 10:30 AM	Mar 12, 2025	1	Using geographical coordinates retrieved to access OpenWeatherMap API
			- Changed simulator's location to New West.
			- Want:
			  - weather.icon
			  - weather.main
			  - main.temp : Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit
			- Verified API call works
			- Created weather_routes.py and linked to main.py
			
			Next Steps:
			- Complete weather router
			- Fetch coordinates for every session and pass to router
			- Retrieve openweathermaps api data
			- Show details on screen to confirm

3/13/25 12:00 AM	Mar 13, 2025	1	OpenWeatherMap API - Completed weather_routes to retrieve temperature, icon, and weather condition - Set up method in the frontend to pass location coordinates to the backend - Showing the retrieved information on LocationPermissionsScreen (temporarily) to confirm working API call and to confirm the passing for information from frontend to backend Restructuring LocationPermissions screen - Passing location permissions to homescreen - if location permissions are granted, fetch location to pass to homescreen

		1.25	Restructuring HomeScreen - Accept getLocation() as a prop to fetch location - Displaying weather information on homscreen instead of in LocationPermissions Problem 1: - Rendering LocationPermissions screen behind the Homescreen - Both screens rendering simultaneously Solution: - Instead of rendering as a child inside HomeScreen's main view, use conditional full-screen rendering Problem 2: Weather information not displaying - axios and API_BASE_URL imports missing from HomeScreen Solution: - Added necessary imports Problem 3: LocationPermissions screen loads up on subsequent app launches even when permissions have been granted - permissions start off as false and only sets to true when user presses "Allow" on the LocationPermissions screen. - The component doesn't know permissions were granted in a previous session until button has been pressed Solution: - Added useEffect to check permission status of the device on component mount Next Steps: - LocationPermissions screen won't go away if permissions not granted
3/13/25 1:00 AM	Mar 13, 2025		
		2.5	Adjusting the weather display in home screen - Rounding temperature to display no decimals - Adjusted the layout of the weather box Adjusting the MoreMenu - Converted MoreMenu from a separate screen into a Modal Overlay - Modal overlay is toggled when the more button is pressed which displays over the current view Styling Modal menu - Fixing up the UI - Implementing BlurView to blur background when modal is toggled Problem: - BlurView is pushing my modal menu out of position Solution: - Tried to put modal menu inside BlurView -> did not work; blurred everything - Use absolute positioning to place modal menu on top of blurview Next Steps: - LocationPermissions screen won't go away if permissions not granted - Handle denied permissions - Format chatbot responses
3/13/25 7:30 PM	Mar 13, 2025		- start Events screen
		0.5	Research EventBrite API Problem: Event search API is no longer available - Unable to search general events without specific event ID Alternative Solution: - Research for different events API - Found PredictHQ which allowed searching of local events - Set up token and tested api call on PredictHQ's website Next Steps: - Set up Events component (Screens, styles, routes)
3/14/25 11:00 PM	Mar 14, 2025		

			3.5	Chatbot Text Input not clearing - Added useRef to manually clear text input after sending message Set up Events Screen - Set up placeholders for how the events screen should look - Added temporary styling Set up Events router - Set events router and connected to main.py - Set GET method for the API - Set params for the API call Set up methods in Events Screen - Using Geolocation to retrieve device's coordinates - Passing coordinates to the router to use the PredictHQ API - Fetching response data Problem: API 401 Unauthorized error - Token refuses to work - Also discovered PredictHQ is a paid subscription after a free trial -> will not be able to use Decision to remove Events MVP following failure to search for a Events search API
3/15/25 1:00 PM	Mar 15, 2025			