



Assignment 2 Requirements Document

ENG1003 - Team 44

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Project Information

Many universities have exchange programs which allow students to experience and learn different cultures by studying abroad in a different country. Many students take advantage of this experience to visit different areas of the city and country. Although the COVID-19 pandemic has led to the closing of international borders, steps are taken by the federal government to allow domestic travel in an initiative to improve the nation's economy.

Monash University, which offers many exchange programs for students, has been sponsored to create a web application to aid students who are planning their trips within the country. The aim of this project is to create this web application on behalf of Monash for students to use.

The criteria of the application involves a user-friendly interface and information available instantaneously. In addition, there is a strong preference against the sight of tabs. The application should allow the user to plan a trip within the country and be able to book connecting routes. The user should also be able to see information about all available domestic routes in their country. Information about the trip, ability to cancel trips and earlier trips should also be available to view in the application. The application should allow all users to search and book a trip but the ability to save scheduled trips are for users who sign up to the web application.

The target device for this web application will be the iPad Pro in landscape although other devices and orientations should be considered as well.

List of Features

1. Account Creation

- a. Name, email and password are required if they want to create account
- b. Users are not required to log in to book a flight
- c. Ask the user to create an account if they want their scheduled trip to be saved (after booking)

2. Flight scheduling

- a. Searchable dropdown list (datalist) of all the countries.
- b. Departure date selection. (Date begins from current date so no date from the past can be chosen)
- c. Done from the home page.

3. Airports display and route selection.

- a. After the user submits 1, clickable airport icons of the selected country are displayed on a map.
- b. After the airport is selected, selectable routes from that airport to other airports and their names should be displayed.
- c. Step b can be repeated so that routes can be selected concurrently this way in order to schedule connecting flights until the user has reached their destination.

4. Trip Confirmation

- a. Summary of the whole trip is shown - where it will land, name of the airline and anything else that would help the user decide.
- b. After flight booking, user gets option of whether they want to save the flight, if so they will be asked to login/ create account

5. Saved Trips Display

- a. Information about trips the user saved.
- b. Must be logged in to view this.

6. Flight History

- a. History of previous trips is maintained
- b. On a separate page
- c. Requirement: user is logged in

7. Other features

- a. Logo shouldn't go over budget.
- b. Shown in the title bar and the top left corner of the page.

Note: These are notes on requirements based on which the user stories below are written.

User stories:

1. Account Creation

Name: Account Creation	Estimate: medium effort
User story: As the user, I want to be able to enter my personal details, so that I can successfully create my account	
Acceptance criteria: <ul style="list-style-type: none"> - The user will enter a name, email and password to sign up. - The log-in button will be on the top right corner of the app screen. - When clicked it should give the user an option (in a pop-up box) to either log in with email and password or sign up. 	

Name: Logging In	Estimate: low-medium effort
User story: As a user I want the app to notify me to either log in or create an account if I want my scheduled trip to be saved so that all my trips are located inside the application.	
Acceptance criteria: <ul style="list-style-type: none"> - When the “schedule trip” button is clicked and the user is not logged in, a pop up should appear - There should be two options on the pop up asking to either “login” or “sign-up” - Clicking the login option should ask the user for an email address and password to be entered in two separate text boxes - Clicking the sign-up option should lead to 3 text boxes asking for name, email and password 	

2. Flight Scheduling

Name: Country selection	Estimate: Low effort
User story: As a user, I want to be able to select the country I want to travel to so that I can go on to pick the specific route.	
Acceptance criteria: <ul style="list-style-type: none"> - Country selection should be a searchable dropdown list containing all of the possible countries for travel - Country should be selected on the homepage - Countries are in alphabetical order so that it's easy to choose the country the user is travelling to. 	

Name: Date selection	Estimate: Low effort
User story: As a user, I want to be able to select the date for my flight so that I can plan my trip and see the routes for the day I want.	
Acceptance criteria: <ul style="list-style-type: none"> - Should display all of the possible dates and user should be able to scroll and select the date that they want - Date should be chosen from the homepage - The flight dates are in sequential order from earliest flight to the further available. - After the date is selected, the map should generate a set of domestic airports in the selected country. 	

3. Airports display and route selection

Name: Map Display	Estimate: Low-Medium Effort
User story: As a user, I want a map displayed so that I can plan my routes visually.	
Acceptance criteria: <ul style="list-style-type: none"> - The map should cover approximately $\frac{3}{4}$ of the space under the navigation bar. - It should be to the right of the input fields and trip summary output area. - The map should zoom to fit a country after a country is selected. 	

Name: Airport Icons	Estimate: Medium Effort
User story: As a user, I want airports displayed as clickable icons on a map so that I can plan domestic routes originating from that airport.	
Acceptance criteria: <ul style="list-style-type: none"> - All displayed airport icons should generate routes when clicked. - The icons should be orange and have a marker-like appearance according to the image data in the MapBox API. - When hovered over, the icons should display a popup text with a brief description of airport name and location. - The map should display all the airport icons in their approximate location within the selected country, in accordance with the data in the Airports API. - When a selected airport icon is clicked again, it should clear/disappear all the generated routes and go back to the previous state. 	

Name: Route selection	Estimate: Medium-High Effort
User story: As a user, I want to be able to select domestic routes originating from an airport so that I can plan trips.	

Acceptance criteria:

- After an airport icon is clicked, all domestic routes originating from that airport should be displayed.
- The routes should be displayed as straight purple lines, with medium thickness.
- When a route is clicked, the route line should turn green and all the domestic routes from the destination airport should be displayed.
- The clicked route should generate an appropriate trip summary and confirmation section to the left of the map in the 'trip summary output area'.
- The trip summary should update as new route lines are clicked in order to accommodate the connecting flights feature.
- When the trip confirmation is cancelled the map should go back to the state where all domestic routes from a selected airport are displayed.

4. Trip confirmation

Name: Trip confirmation	Estimate: Medium effort
User story: As a user, I want to be able to see a summary of the trip, including the selected travel details so that I can review my selections before confirming the trip.	
Acceptance criteria: <ul style="list-style-type: none"> - Summary should include where the plane will land, the name of the airline as well as the selected route - Summary should include the departure date/time and arrival date/time - At the bottom of summary, there should be a button to confirm booking 	

Name: Saving Flight	Estimate: Medium effort
User story: As a user I want to be have the option of saving my flight after booking so that I can look at my flight history later	
Acceptance criteria: <ul style="list-style-type: none"> - Pop up box should appear after booking is confirmed asking whether user would like to save the flight (should have yes or no option to select) - If yes is selected, user should be asked to login in to their account or create account - Once logged in, the new booking should be added to the flight history page 	

5. Saved Trips Display.

Name: Saved Trips Layout	Estimate: Low-Medium Effort
User story: As a user, I want to be able to view an interactive saved trips page so that I can access detailed information about all of my saved trips.	
Acceptance criteria: <ul style="list-style-type: none"> - The saved trips page should be divided into 3 different sections. - The top left section should contain detailed information about the selected trip. - The top right section should display a map with that trip's routes. - The bottom section should contain a table with brief information about each saved trip organised in clickable rows. 	

Name: Detailed Trip Information	Estimate: Medium Effort
User story: As a user, I want to be able to view detailed saved trip information so that I can benefit from having access to this information.	
Acceptance criteria: <ul style="list-style-type: none"> - The trip information should include all the information available in the APIs that relates to the selected trip which includes the details of its routes and airports. - The trip information area should cover a sufficient amount of space in the top left corner of the Saved Trips page so that all the information fits perfectly next to other elements of this page. - The detailed trip information section should modify itself based on which trip is selected in the saved trips table section. 	

Name: Saved Trips Map	Estimate: Low-Medium Effort
User story: As a user, I want to be able to view a map of the route(s) of my selected saved trip so that I can benefit from visually observing trip and route information.	
Acceptance criteria: <ul style="list-style-type: none"> - The saved trips map should contain only the routes for a single saved trip that is selected from the saved trips table. - When a trip is selected from the table, the map should zoom to fit all the airports and the routes of that selected trip alone. - The styling of the map should be similar to the map in the route selection page. - But this map must be smaller in size (the exact value yet to be determined) and located in the top right corner. 	

Name: Saved Trips Table	Estimate: Medium-High Effort
User story: As a user, I want to have access to an interactive table containing all of my	

saved trips so that I can benefit from being able to view and modify my saved trips in an efficient manner.

Acceptance criteria:

- The saved trips table must contain all of the signed-in user account's saved trips.
- This table must be in the bottom of the saved trips page and must clearly be the largest displayed element in the page.
- When a signed-in user saves a trip, this table should be appended with brief information about that trip.
- This brief information should contain ID (corresponds to creation order), airline, initial airport, final airport, date of departure and number of connecting flights/stops as 6 different columns.
- If a row in this table (which should contain a trip) is clicked, then the row must be slightly shaded to indicate selection and the detailed trip information section and the saved trips map section must be modified to display this selected trip.
- The table must be scrollable.
- The table must be sortable by a small arrow in each column, sorted in ascending order, both alphabetical and numeric, when clicked once and descending when clicked again.
- The table must have a dropdown input element above that gives the user the option to display 5, 10, 25 and all rows.
- There should be a cancel trip feature.

6. Flight History

Name: Flight History	Estimate: low medium effort
User story: As a user I want to be able to view my flight history so that I am aware of the flights I have taken and where I have been to	
Acceptance criteria: <ul style="list-style-type: none"> - The flight history should open up on a separate page - The user must login to their own account before they are able to see their own flight history 	

7. Other Features

Name: Logo	Estimate: Medium
User story: As the client, I would like to have a logo so that it can be displayed in the app.	
Acceptance criteria: <ul style="list-style-type: none"> - Implementation does not go over budget - Shown in the top left of page - Shown in the title bar 	