

REQUIREMENTS DOCUMENTATION



MONASH University

FACULTY OF ENGINEERING ENG1003: Engineering Mobile Apps

Team 036

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1. PROJECT INFORMATION

1.1 Project Background

Exchange programs at Universities offer the opportunity to study in a different country and learn from a new culture, however due to Covid-19 restrictions, many exchange students have been missing out on the opportunity to travel within their host country. As the pandemic restrictions begin to ease, a growing market of exchange students seeking domestic travel will likely increase as local borders begin to open. With an expected increase of demand in the local travel market, Monash University has been sponsored to create a web application to help exchange students plan their travel itineraries, book future flights and archive all the places they have visited.

1.2 Project Summary

The project involves experiencing the various processes in a real world software engineering project. In this requirements gathering stage, an initial contact with the client is established followed by clarifying specific details or requirements of the project with the client. All the general requirements of the project are noted and a list of features for the project is then created. Relevant user stories are generated and transformed from the notes and the interaction with the client. These user stories are then further sorted by the features as requested by the client. This creates a clear plan for the people working on the project to follow and subsequently result in a smooth transition into the other phases of the software engineering process.

2. LIST OF FEATURES

A list of features have been identified from the listed client requirements specified in the project background and a transcript from an interview with managers. The features to be included in the development of the web application are:

HOMEPAGE

- Country
- View all airports in selected country
- View domestic routes from selected airport
- Adding routes
- Summary of trip
- Saving trip details
- Naming trips

ALL ROUTES PAGE

- View all routes

SCHEDULED TRIPS PAGE

- View scheduled trips

HISTORY PAGE

- View history of trips

DETAILED TRIP PAGE

- View details of trip

ACCOUNT

- Account login page
- Account creation page

NAVIGATION BAR

- App navigation

3. USER STORIES

“User” as the user of the app, whereas “registered user” are those who log in to the app.

Development Time for user stories varies based on difficulty of the task:

- XS - Extra Small development time(~1-2 hours to complete)
- S - Small development time (~2-5 hours to complete)
- M - Medium development time (~5-24 hours to complete)
- L - Large development time (~1-5 days to complete)
- XL - Extra Large development time (~5-14 days to complete)

3.1 HOMEPAGE USER STORIES

Country selection

As a user, I want to be able to select the country name and date of my trip departure so that I can search for all the airports in the country.

Development Time: [S]

Possible acceptance criterias:

1. The view on the homepage should contain a search bar, date input and map.
2. The user types the country name in the search and is suggested via a datalist.
3. The user chooses the date of the trip departure using an input date element.
4. The user should be able to see all the airports in the selected country on the map.

View all airports in the selected country

As a user, I want to be able to view all the airports in the selected country so that I can select the desired departure airport.

Development Time: [S]

Possible acceptance criterias:

1. The user can zoom in, zoom out and move the map accordingly to view the airports in the selected country.
2. The user should be able to select the departure airport through a datalist.

View Domestic Routes from the selected Airports

As a user, I want to be able to view all the domestic routes from the selected airport so that I can choose my preferred route.

Development Time: [M]

Possible acceptance criterias:

1. The user can zoom in, zoom out and move the map accordingly to view the routes in the selected airport.
2. The user should be able to click the route on the map to select a route.
3. The user should be able to see the departure/destination airports of the route on the map.

Adding routes

As a user, I want to be able to add additional routes to my itinerary, so that I can reach my destination with connecting flights.

Development Time: [M]

Possible acceptance criterias:

1. The user should be able to select routes sequentially.
2. The user has the option to undo a route by clicking the selected route on the map.

Summary of trip

As a user, I want to see a summary of my planned trip so that I can see the details of the routes I selected.

Development Time: [S]

Possible acceptance criterias:

1. The user can view the summary after clicking a confirmation button.
2. The user can see the departure and destination airports in the summary.
3. The user can see the date of the trip departure in the summary.
4. The user can see the stopover destinations and the total number of stops in the trip.

Saving trip details

As a user, I should be able to save my current planned trip so that I can view the trip later on the scheduled trips page.

Development Time: [S]

Possible acceptance criterias:

1. The user can see the save and cancel buttons after confirming and at the end of the trip summary.
2. If a guest user chooses to save, the user should be redirected to the account login page.
3. If a registered user chooses to save, the trip information is sent to the booking agent, saved to scheduled trips and the user is redirected to the scheduled trips page.
4. If the user chooses to cancel, they are brought back to the trip planning stage.

Naming trips

As a user, I should be able to name my trips, so that I can find each trip easily on the scheduled trips page.

Development Time: [XS]

Possible acceptance criterias:

1. The user should be prompted to enter a trip name after clicking the save trip button.
2. When defining a trip name, the default trip name should already exist as “My Trip” in an editable text field.

3.2 ALL ROUTES PAGE USER STORIES

View all routes

As a registered user, I want to be able to view all routes in a particular country so that I can decide where to travel.

Development Time: [M]

Possible acceptance criterias:

1. The user should be able to select a country.
2. The user should be able to see all of the available routes in the selected country on a map.
3. The user should see a popup that shows the two airports of the route when clicking on the route on the map.

3.3 SCHEDULED TRIPS PAGE USER STORIES

View scheduled trips

As a registered user, I want to be able to view my scheduled trips so that I can review the details of the trips.

Development Time: [M]

Possible acceptance criterias:

4. The user should be able to view the scheduled trips as a table in order of flight date.
5. The table should include the trip origin, destination, number of stops.
6. If the user clicked on a specific scheduled trip, the user will be redirected to the detailed trips page.

3.4 HISTORY PAGE USER STORIES

View history of trips

As a registered user, I want to have a page for the history of trips so that I can see all the past scheduled trips.

Development Time: [M]

Possible acceptance criterias:

1. The user should see a table of past schedule trips in the order from earliest to oldest
2. The trips from scheduled trips page that are past current date are automatically moved to history page
3. If the user clicked on a specific scheduled trip, the user will be redirected to the detailed trips page.

3.5 DETAILED TRIP PAGE USER STORIES

View Details of Trip

As a registered user, I want to click on a specific trip out of my scheduled trips/history of trips so that I can view the details of the trip.

Development Time: [XS]

Possible acceptance criterias:

1. If the user clicked on a specific scheduled/history trip, the user will be redirected to this page to view the details of the selected trip.
2. The registered user should be able to see the summary and a map of the trip, this include departure and destination airports, date of the trip, stopover destinations and the total number of stops on the bottom half of the page.
3. The user should be able to delete the currently viewed trip plan on the new page.

3.6 ACCOUNT USER STORIES

Account Login Page

As a user, I want to be able to have a unique login so that I can save and view my scheduled/history of trips.

Development Time: [S~M]

Possible acceptance criterias:

1. If the guest user doesn't have an account, they can click a button to redirect to the account creation page
2. If the guest user has an account, after logging in, any existing confirmed trip is saved and they are redirected to the scheduled trips page.
3. If the guest user chose to cancel login, a warning that the current planned trip will be deleted is shown as confirmation.
4. If login was cancelled, the guest user is redirected to the homepage and the existing planned trip is deleted.

Account Creation Page

As a user, I want to have a page to create an account so that I can store my personal information under my account.

Development Time: [M~L]

Possible acceptance criterias:

1. The user should be directed to a new page to create an account
2. The user should input name, email address, passwords (at least 8 characters)
3. The user should confirm passwords before the account can be created successfully.
4. After creating an account, the user is redirected to the login page

3.7 NAVIGATION BAR

App Navigation

As a user, I want a navigation bar that allows me to navigate between pages so that I can efficiently access different pages of the app.

Development Time: [M]

Possible acceptance criterias:

1. The user should be able to redirect back to the homepage by clicking on the logo of the app (favicon).
2. The user should be able to return to the schedule trip page via the navigation bar
3. The navigation bar should include login and account creation by default.(redirects to their respective pages)
4. If the user is logged in, the navigation bar should include scheduled trips and history page. (redirects to their respective pages)
5. If the user is logged in, the login and account creation button should be changed to a logout button