



TRIP PLANNER WEB APP

Jun Jie Ng
Grant Lu
Joseph Dal Bosco
Logithan Chandrakumar



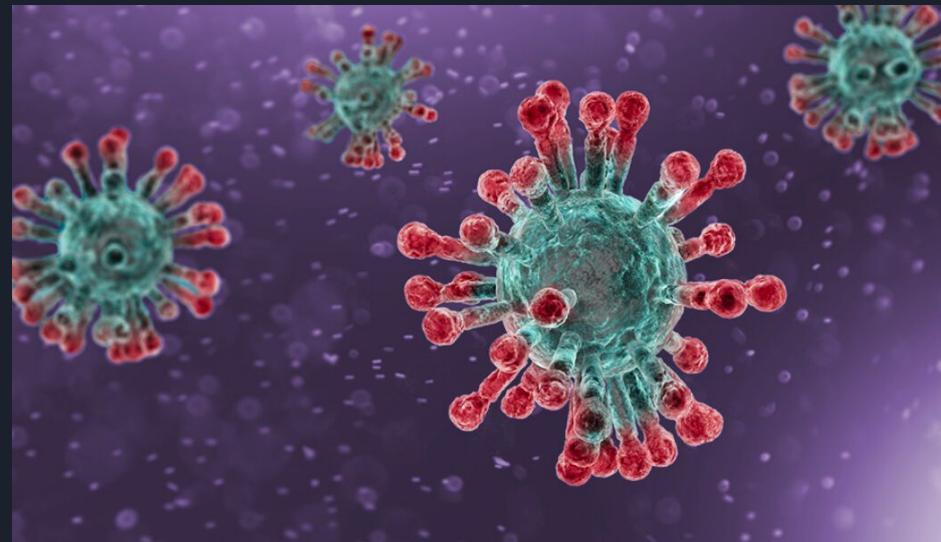
Presentation Contents

- Introduction
- Interface and functionality of app
- Design choices
- Hardware requirements and limitations
- Future development of the app
- Conclusion

Background and the aim of the project



MONASH
University



The Team



Jun Jie NG

Information Gatherer

Project planner



Grant LU

Communicator

Editor



Joseph DAL BOSCO

Project Leader

Proofreader



Logithan CHANDRAKUMAR

Time Manager

Meeting Coordinator

Homepage

The screenshot shows a travel planning interface. At the top left is a small airplane icon. On the right side, there is a green 'Login' button. Below the header, the words 'Trip Planning' are displayed. A large red oval highlights the 'Choose Country' input field, which is a white text box with the placeholder 'Choose Country'. To the right of this field is a date input field labeled 'dd/mm/yyyy Date' with a calendar icon. Below these fields is a dropdown menu labeled 'Choose airport' with a downward arrow, followed by a green 'SUBMIT' button. Underneath the 'SUBMIT' button are two green buttons: 'UNDO LAST ROUTE' and 'CONFIRM'. The main area features a world map with a focus on the North Atlantic Ocean and Europe. The map shows landmasses in light green and bodies of water in blue. Numerous countries are labeled, including Canada, United States, Mexico, Cuba, Guatemala, Nicaragua, Panama, Colombia, Guyana, Ecuador, Spain, France, Italy, Germany, United Kingdom, Norway, Sweden, Denmark, Finland, Estonia, Latvia, Belarus, Ukraine, Romania, Bulgaria, Greece, Turkey, Morocco, Tunisia, Algeria, Libya, Egypt, Sudan, Eritrea, Ethiopia, Yemen, Oman, Saudi Arabia, Iraq, Iran, Kuwait, Afghanistan, Pakistan, India, Nepal, Bangladesh, Sri Lanka, Laos, Vietnam, Malaysia, Brunei, Mongolia, Kazakhstan, Uzbekistan, Azerbaijan, and China.

Homepage

The screenshot shows a travel planning interface on a website. At the top, there is a green header bar with a small airplane icon and a "Login" button. Below the header is a "Trip Planning" section. A red circle highlights the "Choose Country" dropdown menu, which is set to "Angola". Another red circle highlights the "Choose airport" dropdown menu, which is set to "Mbanza Congo". A "SUBMIT" button is visible next to the dropdown. The background features a map of Africa with various countries labeled. A specific area of the map is highlighted in light blue, showing the coastline and major cities of West and Central Africa.

Trip Planning

Choose Country
Angola

dd/mm/yyyy Date

Choose airport
Mbanza Congo

SUBMIT

Benguela
Cabinda
Huambo
Kuito
Lobito
Luanda 4 De Fevereiro
Malanje
Menongue
Negage
Porto Amboim
Saurimo
Soyo
Lubango
Luena
Uige

Namibe Airport 0 Menongue

A map of Africa showing the coastline and major cities of West and Central Africa. Labeled countries include Liberia, Ivory Coast, Ghana, Togo, Nigeria, Benin, Niger, Chad, Sudan, South Sudan, Ethiopia, Somalia, Djibouti, Eritrea, Kenya, Uganda, Rwanda, Burundi, Tanzania, Zambia, Malawi, and Comoros. Major cities like Lagos, Abidjan, Kinshasa, Luanda, and Nairobi are marked.

Homepage

[Login](#)

Trip Planning

Choose Country
Angola

Choose Trip Date
31/10/2020

Choose airport
Kuito





The map displays flight routes originating from various airports in Angola, including Luanda 4 De Fevereiro Airport, Kapanda Airport, Catumbela Airport, Ondjiva Pereira Airport, Lubango, Menongue, and Namibe Airport. Other countries shown include the Democratic Republic of the Congo, Uganda, Kenya, Tanzania, Zambia, and Malawi.

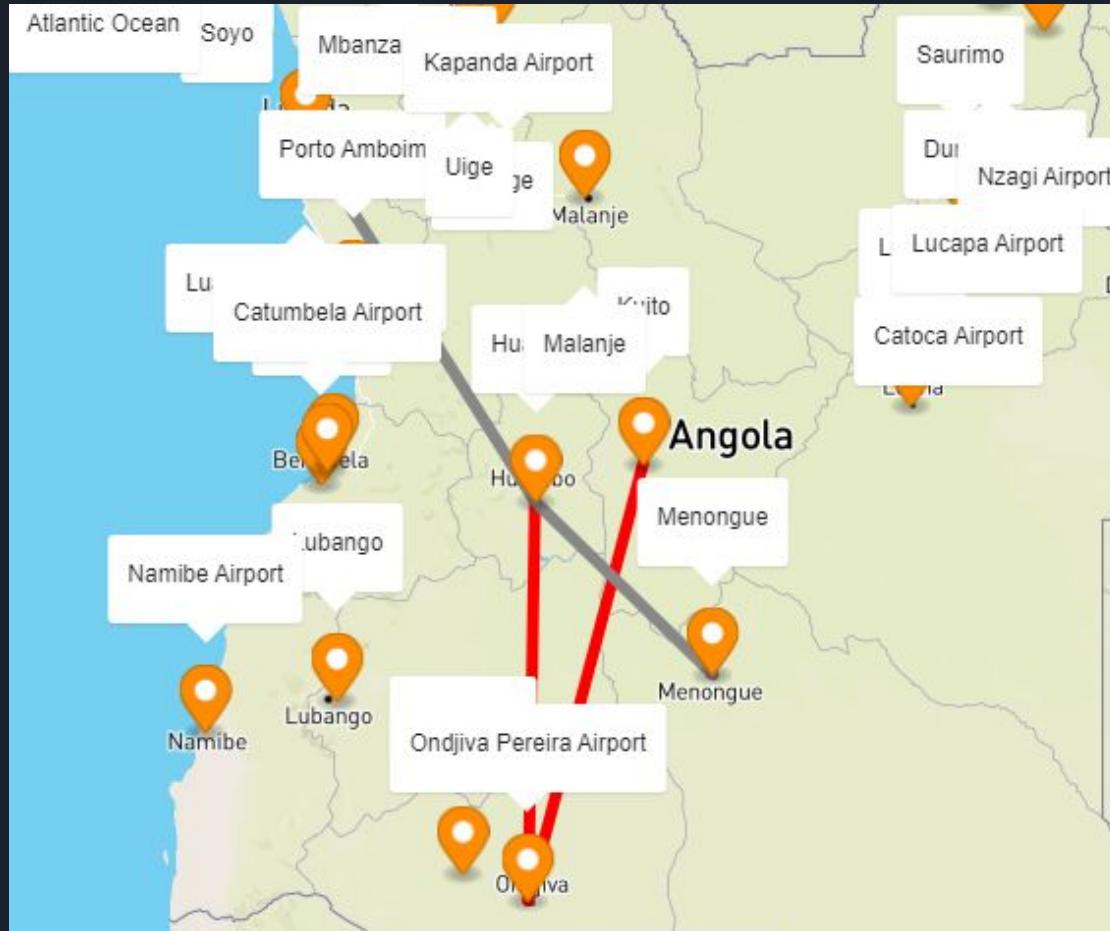
Homepage- route selection



Homepage- route selection



Homepage- route selection



Homepage

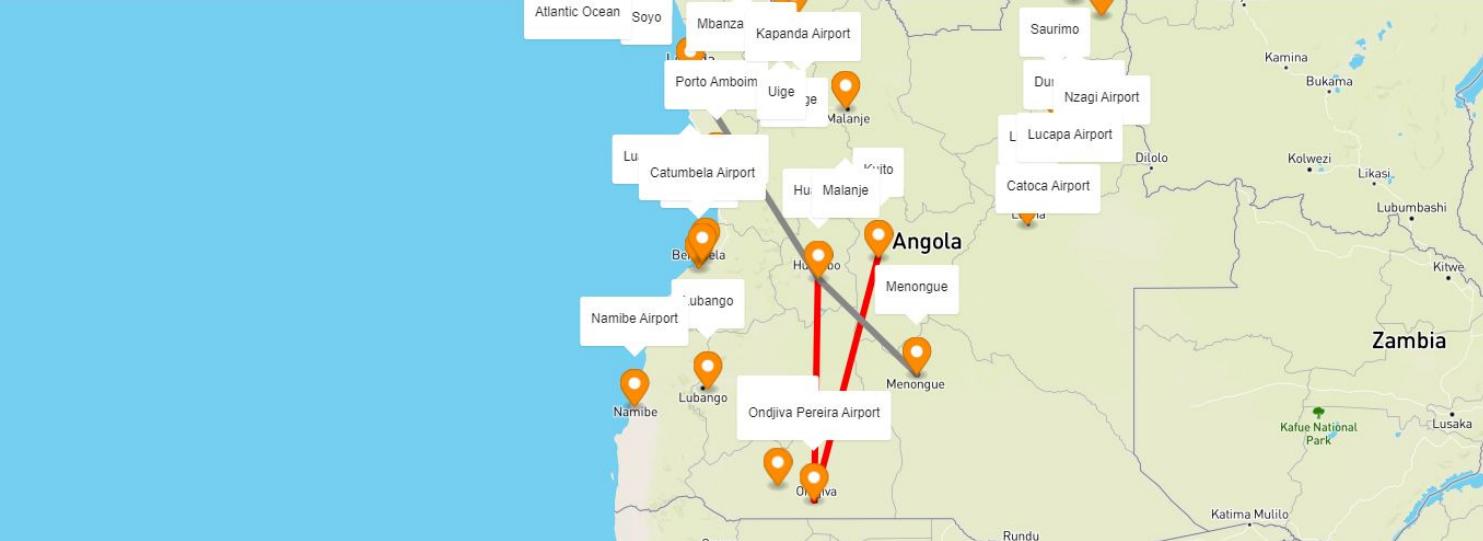
[Login](#)

Trip Planning

Choose Country
Angola

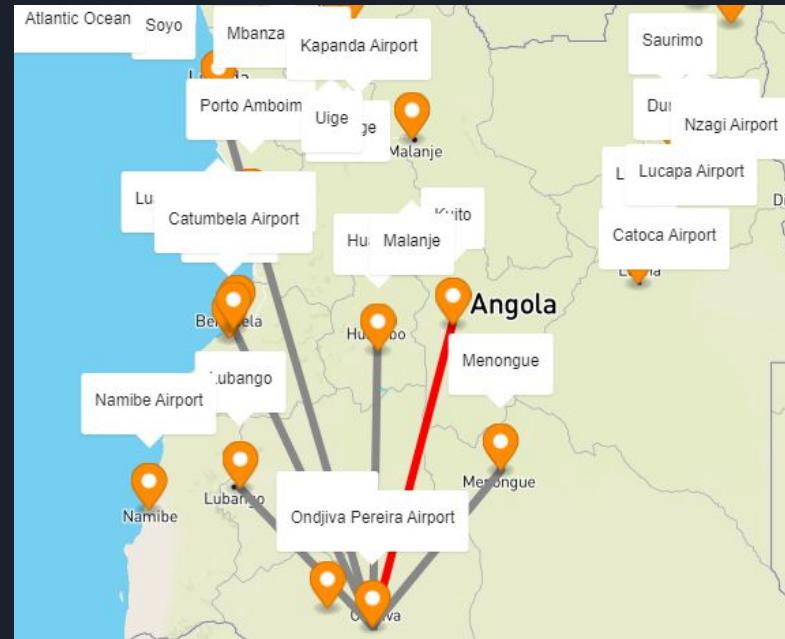
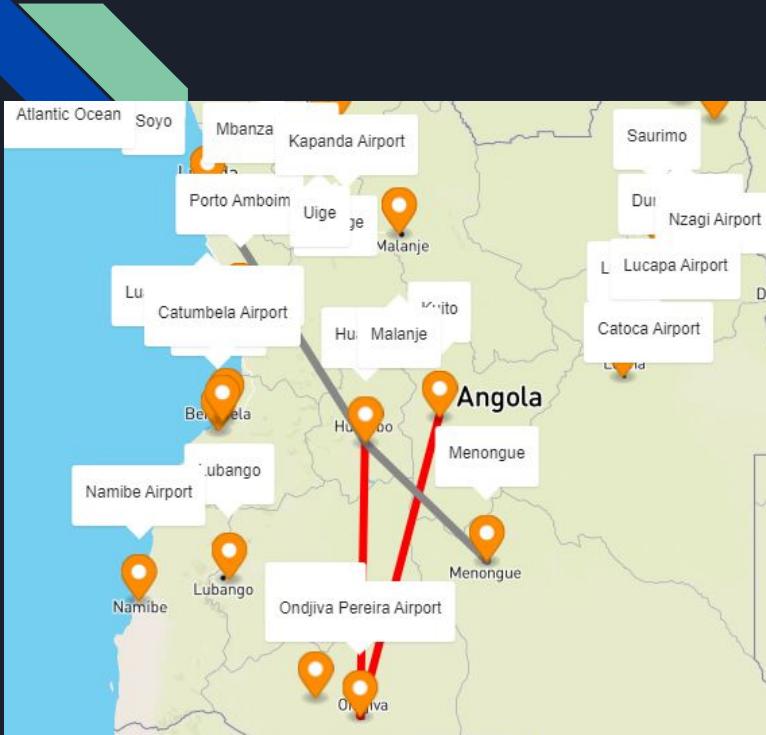
Choose Trip Date
31/10/2020

Choose airport
Kuito



The map displays several airports in Angola, including Kapanda Airport, Uige, Malanje, Catumbela Airport, Huambo, Lubango, Ondjiva Pereira Airport, Menongue, and Namibe Airport. It also shows neighboring countries Zambia and Congo. A red route line is drawn on the map, starting from Lubango and ending at Menongue.

Homepage - undo button



Homepage



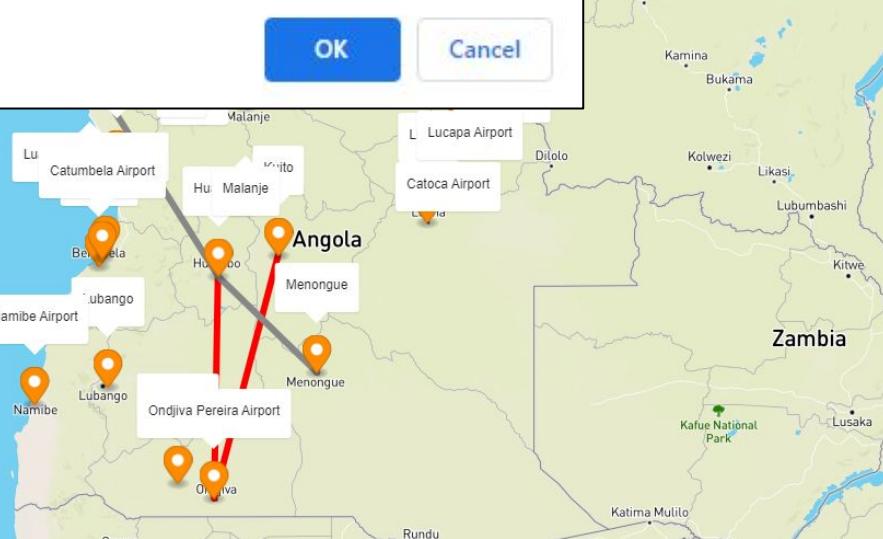
Trip Planning

Choose Country
Angola

Choose Trip Date
31/10/2020

This page says
Confirm current trip?

OK Cancel



The map displays several airports in Angola and Zambia. In Angola, marked locations include Catumbela Airport (Luanda), Belo Lula, Lubango, Namibe, Ondjiva Pereira Airport (Luanda), and Menongue. In Zambia, marked locations include Lucapa Airport (Copperbelt), Catoca Airport (Kitwe), and Lubumbashi. A red line connects Lubango and Menongue, while a red circle highlights Ondjiva Pereira Airport.

Summary page

Summary	
Departure	Kuito
Destination	Huambo
Date of Trip	2020-10-31
Routes	1) Kuito to Ondjiva Pereira Airport 2) Ondjiva Pereira Airport to Huambo
Total Number of Stops	1

SAVE **CANCEL**

Summary page

Summary

Kuito

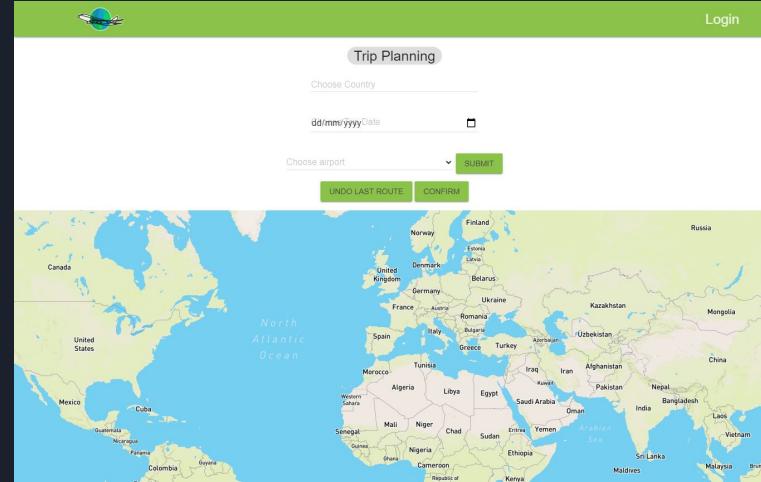
Huambo

2020-10-31

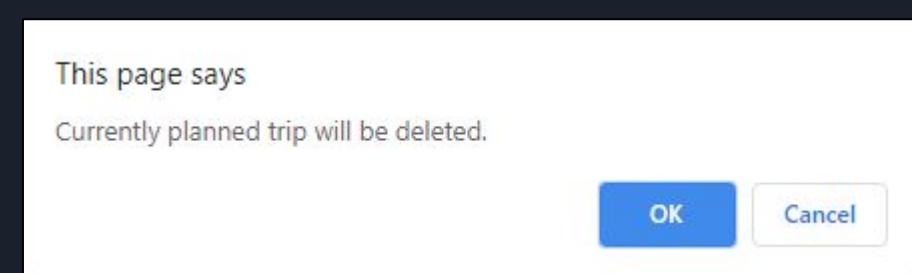
1

1) Kuito to Ondjiva Pereira Airport
2) Ondjiva Pereira Airport to Huambo

SAVE CANCEL



Redirect to
Homepage



Summary page

Summary

Kuito

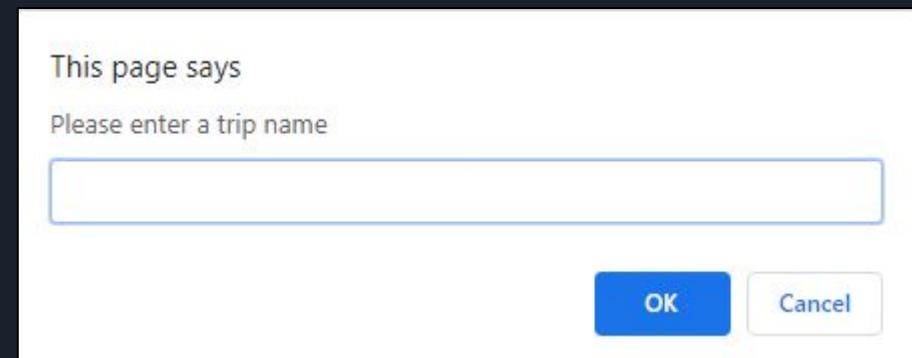
Huambo

2020-10-31

1) Kuito to Ondjiva Pereira Airport
2) Ondjiva Pereira Airport to Huambo

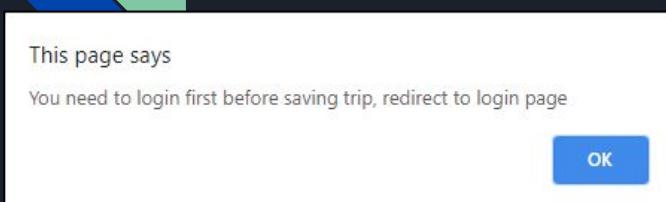
1

SAVE **CANCEL**

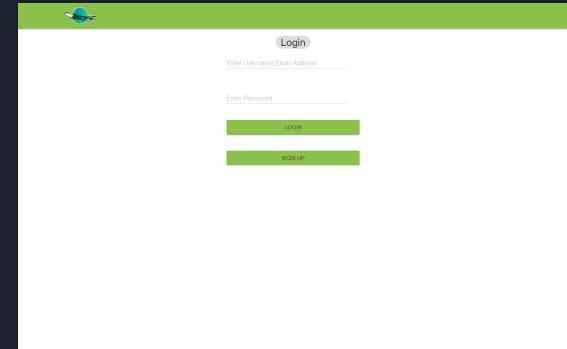


Summary page- save button

Guest user



Redirect to Login
Page



Registered user



Redirect to
Scheduled Trips Page

Scheduled Trips					
Name of Trip	Departure Location	Destination	Number of Stops	Flight Date	View More Details/Map Details
test	Kutub	Huambo	1	2020-10-31	VIEW MORE
Christmas Trip	Kutub	Menongue	2	2020-10-28	VIEW MORE

Navigation Bar

Navigation Bar - Registered User



Navigation Bar - Guest User



- 2 variants of navigation bar
 - Registered User
 - Guest User
- The navigation bar is presented in all pages
- User is able to access different pages efficiently

Navigation Bar

Navigation Bar - Registered User



Redirect to Homepage

A screenshot of a "Trip Planning" interface. At the top, there are fields for "Choose Country" and "dd/mm/yyyy Date". Below these are dropdown menus for "Choose airport" and buttons for "SUBMIT", "UNDO LAST ROUTE", and "CONFIRM". The main feature is a world map showing continents in light blue and countries in yellow. Numerous country names are labeled across the map, including Canada, United States, Mexico, Cuba, Guatemala, Nicaragua, Panama, Colombia, Ecuador, Guyana, Brazil, Argentina, Chile, Peru, Uruguay, Venezuela, Costa Rica, Honduras, El Salvador, Paraguay, Bolivia, Turkey, Russia, Mongolia, Kazakhstan, Uzbekistan, Iran, Iraq, Saudi Arabia, Oman, Yemen, India, Sri Lanka, Maldives, Laos, Vietnam, Brunei, Malaysia, Indonesia, Philippines, Thailand, Myanmar, China, Mongolia, India, Nepal, Bhutan, Pakistan, Afghanistan, Turkmenistan, Kyrgyzstan, Tajikistan, Georgia, Armenia, Azerbaijan, and others.

Navigation Bar

Navigation Bar - Registered User



A screenshot of the "All Routes" page. At the top, there is a search bar with the placeholder "Choose Country" and a "SUBMIT" button. Below the search bar is a world map with country names labeled. The map includes the Americas, Europe, Africa, and Asia. A red arrow points to the "All Routes" button at the top of the page.

Redirect to All Routes Page

Navigation Bar

Navigation Bar - Registered User



Scheduled Trips					
Name of Trip	Departure Location	Destination	Number of Stops	Flight Date	View More Details/Map Details
Demonstration 1	Kuito	Huambo	1	2020-11-11	<button>VIEW MORE</button>

Redirect to
Scheduled Trips Page

Navigation Bar

Navigation Bar - Registered User



History of Trips					
Name of Trip	Departure Location	Destination	Number of Stops	Flight Date	View More Details/Map Details
No history trips available to display					

Redirect to History of
Trips Page

Navigation Bar - Logout

Navigation Bar - Registered User



The Navigation Bar
changes accordingly

Navigation Bar - Guest User



Login Page



Enter Username/Email Address

Enter Password

LOGIN

SIGN UP

A screenshot of a login page. At the top left is a logo depicting a globe with a white airplane flying over it. To the right of the logo is a grey "Login" button. Below the logo is a red-outlined input field labeled "Enter Username/Email Address". Below this is another input field labeled "Enter Password". At the bottom of the page are two green buttons: a larger one labeled "LOGIN" and a smaller one below it labeled "SIGN UP".

Login Page

Enter Username/Email Address

Enter Password

LOGIN

SIGN UP

Login Page

The login page features a 'Login' header. Below it are two input fields: 'Enter Username/Email Address' and 'Enter Password'. A red oval highlights the green 'LOGIN' button, which is positioned above a 'SIGN UP' button.

Success

OR

Fail

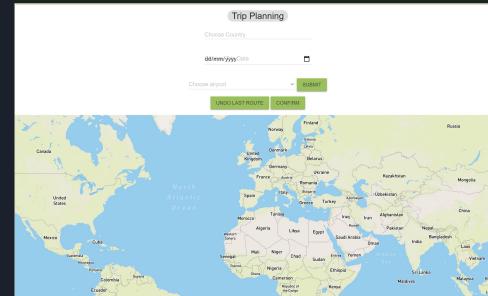
Homepage

Warning

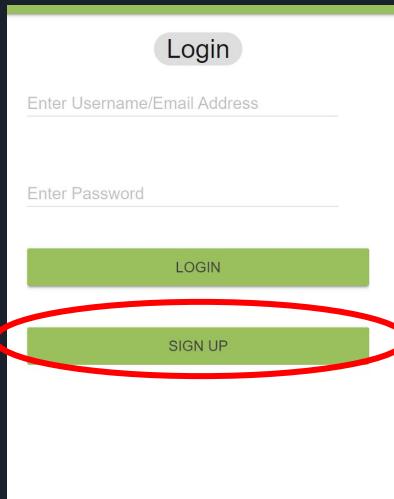
This page says

The email address or username, and/or password you've entered are incorrect

OK

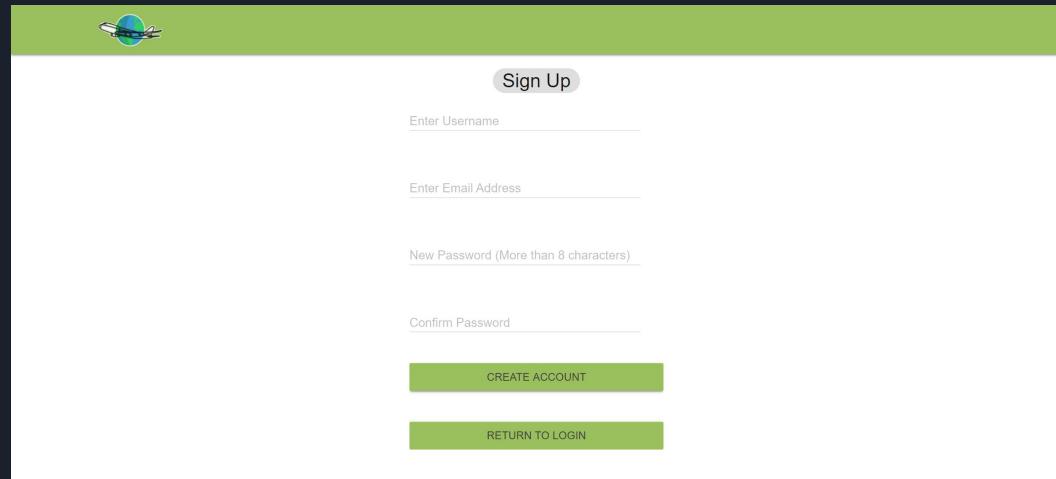


Login Page



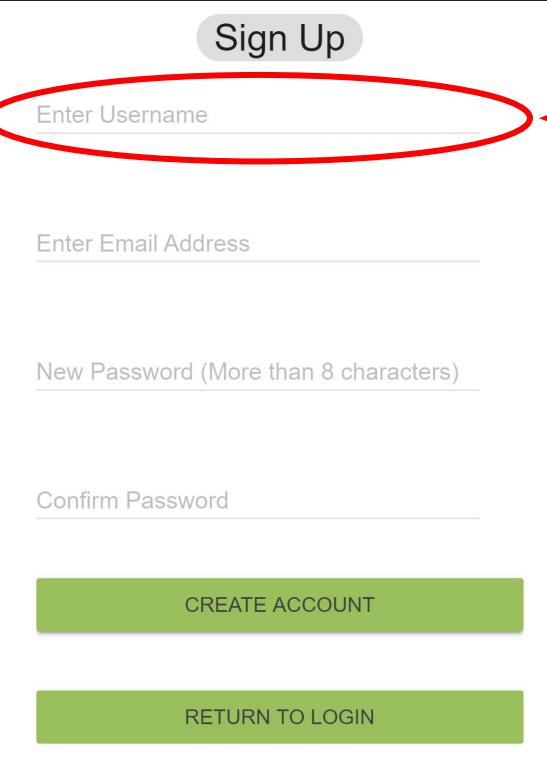
The login page features a light green header bar with the word "Login". Below it is a white content area containing two input fields: "Enter Username/Email Address" and "Enter Password", each with a corresponding text input field. At the bottom are two green buttons: "LOGIN" and "SIGN UP". The "SIGN UP" button is circled in red.

Redirect to Sign Up Page



The sign up page has a light green header bar with a globe icon and the word "Sign Up". The main content area includes fields for "Enter Username", "Enter Email Address", "New Password (More than 8 characters)", and "Confirm Password". At the bottom are three green buttons: "CREATE ACCOUNT", "RETURN TO LOGIN", and a small "Forgot Password?" link.

Sign Up Page



The image shows a mobile-style sign-up form. At the top is a grey button labeled "Sign Up". Below it is a white input field with a placeholder "Enter Username". A large red oval highlights this field, and a red arrow points from the word "Username" to the right edge of the oval. Below the username field is another white input field for "Enter Email Address". Further down are fields for "New Password (More than 8 characters)" and "Confirm Password", both in white input fields. At the bottom are two green rectangular buttons: the left one is labeled "CREATE ACCOUNT" and the right one is labeled "RETURN TO LOGIN".

Sign Up

Enter Username

Enter Email Address

New Password (More than 8 characters)

Confirm Password

CREATE ACCOUNT

RETURN TO LOGIN

Username

Sign Up Page

Sign Up

Enter Username

Enter Email Address

New Password (More than 8 characters)

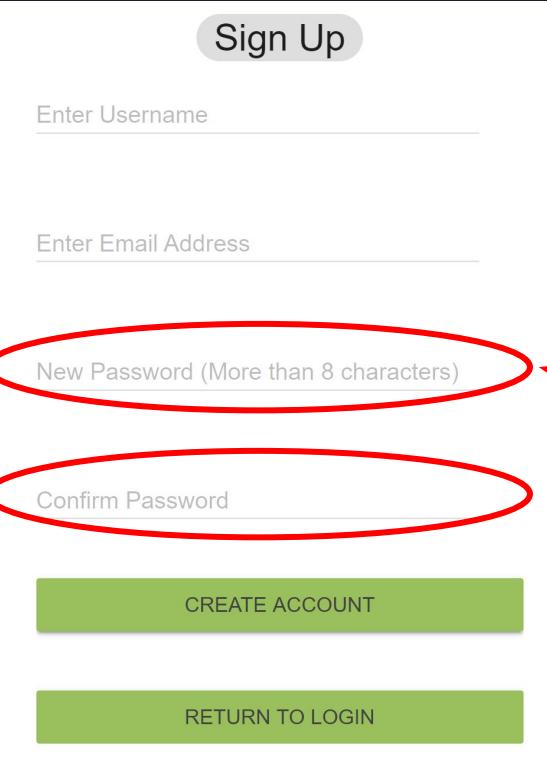
Confirm Password

CREATE ACCOUNT

RETURN TO LOGIN

User's Email Address

Sign Up Page



The image shows a 'Sign Up' page with a light gray background. At the top center is a 'Sign Up' button. Below it are two input fields: 'Enter Username' and 'Enter Email Address'. Further down are two more input fields, both circled in red. The top circled field contains the placeholder 'New Password (More than 8 characters)'. The bottom circled field contains the placeholder 'Confirm Password'. Below these fields is a large green 'CREATE ACCOUNT' button. At the bottom is a smaller green 'RETURN TO LOGIN' button.

Sign Up

Enter Username

Enter Email Address

New Password (More than 8 characters)

Confirm Password

CREATE ACCOUNT

RETURN TO LOGIN

User's Account Password

Sign Up Page

Sign Up

Enter Username

Enter Email Address

New Password (More than 8 characters)

Confirm Password

CREATE ACCOUNT

RETURN TO LOGIN

This page says

The account has been successfully created

OK



Login

Enter Username/Email Address

Enter Password

LOGIN

SIGN UP

Sign Up Page

Sign Up

Enter Username

Enter E

This page says
Confirm password is different with password entered

New Pa

OK

Confirm Password

CREATE ACCOUNT

RETURN TO LOGIN



- This page says
Please enter all required information
- OK
- This page says
Please choose a different username.
The username you entered had been used
- OK
- This page says
Please enter a valid email address
- OK
- This page says
Password needs to be more than 8 characters
- OK

All Route Page

The screenshot shows a travel-related application interface. At the top, there is a navigation bar with tabs: "All Routes" (which is active and highlighted in green), "Scheduled Trips", and "History". Below the navigation bar is a search bar labeled "Choose Country" with a green "SUBMIT" button. A red oval highlights this search area. A red arrow points from the right side of the search bar towards the country names listed on the right. The main content area is a world map with country boundaries and names. The North Atlantic Ocean is labeled "North Atlantic Ocean", and the South Atlantic Ocean is labeled "South Atlantic Ocean". The Indian Ocean is partially visible at the bottom. The map shows countries in light beige, while oceans are in blue. The "All Routes" tab is also present above the map.

Afghanistan

Albania

Algeria

American Samoa

Angola

Anguilla

Antarctica

Antigua and Barbuda

Argentina

Armenia

Aruba

Australia

Austria

All Route Page

The screenshot shows a web application interface for managing flight routes. At the top, there is a navigation bar with a logo of a small airplane on the left and four menu items: "All Routes", "Scheduled Trips", "History of Trips", and "Logout". Below the navigation bar is a search section titled "All Routes" with a dropdown labeled "Choose Country" set to "Angola", a "SUBMIT" button, and a "Clear" button.

The main content area features a map of Angola and its neighboring countries (Congo, DR Congo, Zambia, and Namibia). The map displays several airports as orange pinpoints, with their names labeled: Pointe Noire, Mbandza Congo, Uige, Kikwit, Du Nzagi Airport, Lucapa Airport, Catoca Airport, Luena, Malanje, Kuito, Huambo, Catumbela Airport, Benguela, Lubango, Ondjiva Pereira Airport, Menongue, and Lubango. A red arrow points from the text "Display all Domestic Routes" on the left towards the map.

Display all Domestic Routes

All Routes Scheduled Trips History of Trips Logout

Choose Country
Angola

SUBMIT

CLEAR

Map Labels:

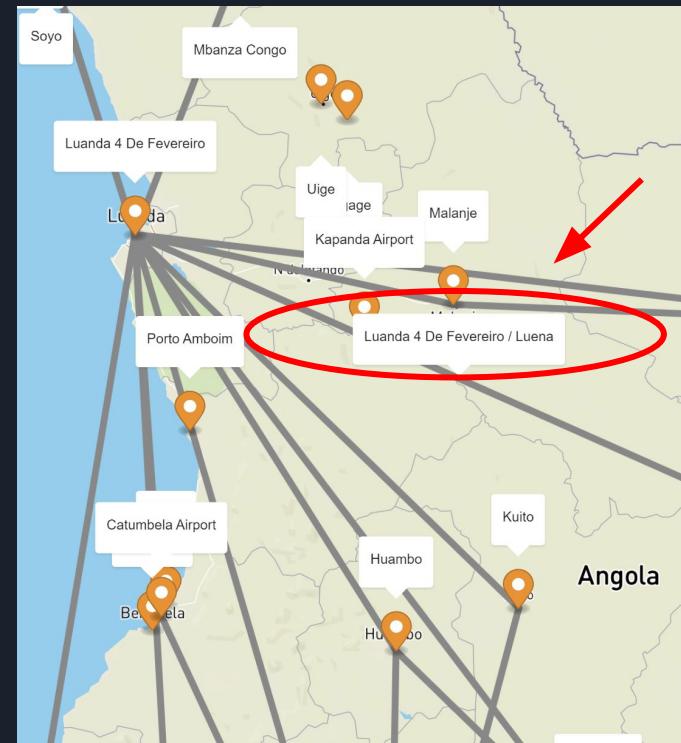
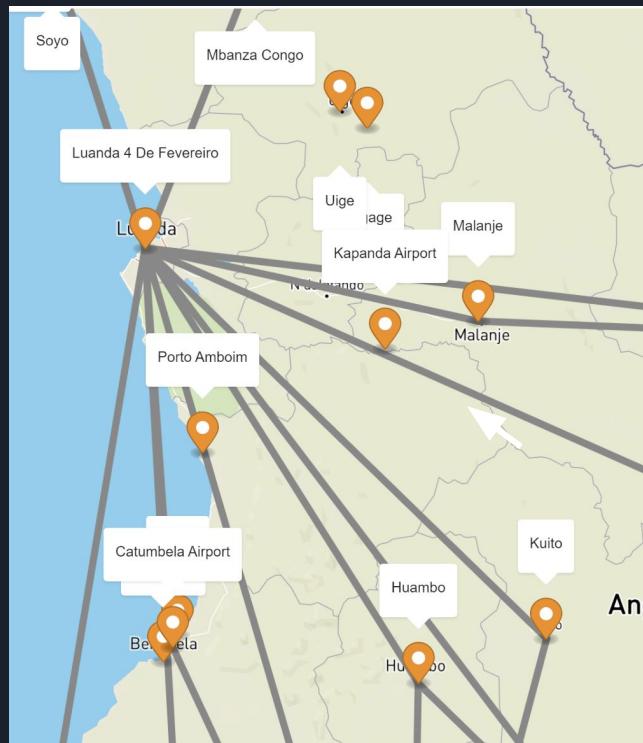
- Pointe Noire
- Mbandza Congo
- Uige
- Kikwit
- Du Nzagi Airport
- Lucapa Airport
- Catoca Airport
- Luena
- Malanje
- Kuito
- Huambo
- Catumbela Airport
- Benguela
- Lubango
- Ondjiva Pereira Airport
- Menongue
- Lubango

Angola

Zambia

Namibia

All Route Page



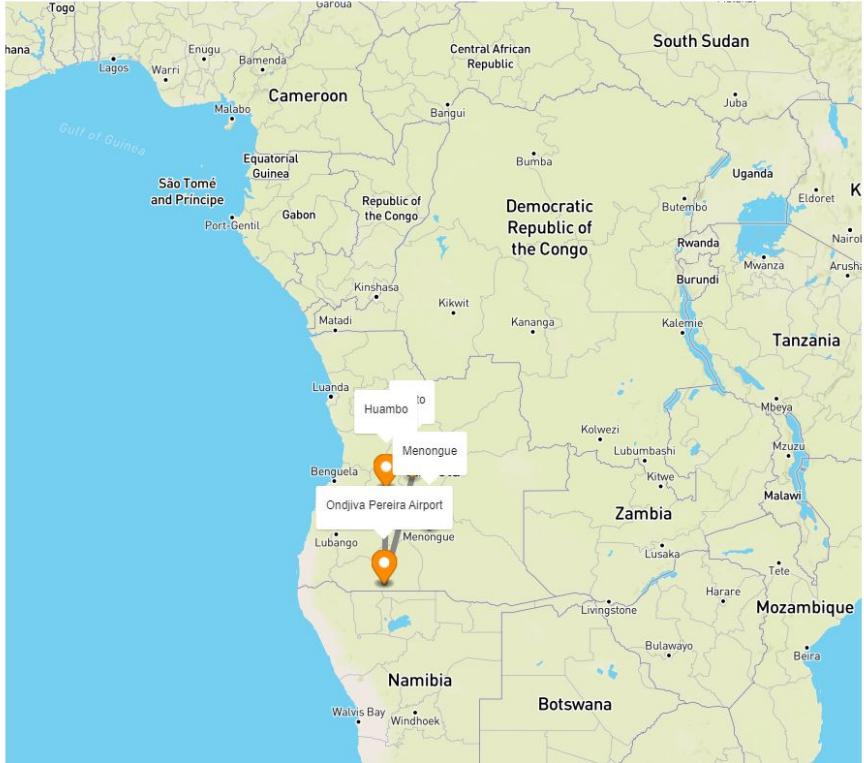
Scheduled Trip Page

Scheduled Trips

Name of Trip	Departure Location	Destination	Number of Stops	Flight Date	View More Details/Map Details
Christmas Trip	Kuito	Menongue	2	2020-11-28	VIEW MORE

Scheduled Detailed Trip Page

All RoutesScheduled TripsHistory of TripsLogout



Trip Detail	
Trip Name	Christmas Trip
Departure	Kuito
Destination	Menongue
Date of Trip	2020-10-28
Routes	1) Kuito to Ondjiva Pereira Airport 2) Ondjiva Pereira Airport to Huambo 3) Huambo to Menongue
Total Stops	2

DELETE TRIP

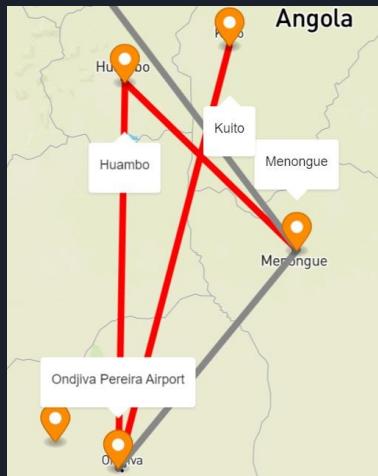
Homepage

Trip Planning

Choose Country
Angola

Choose Trip Date
28/10/2020

Choose airport
Kuito



Scheduled Trip

Trip Detail	
Trip Name	Christmas Trip
Departure	Kuito
Destination	Menongue
Date of Trip	2020-10-28
Routes	1) Kuito to Ondjiva Pereira Airport 2) Ondjiva Pereira Airport to Huambo 3) Huambo to Menongue
Total Stops	2
<input type="button" value="DELETE TRIP"/>	

Trip Name

Trip Name Christmas Trip

This page says

Please enter a trip name

OK

Cancel

Departure

Departure Kuito

Trip Planning

Choose Country
Angola

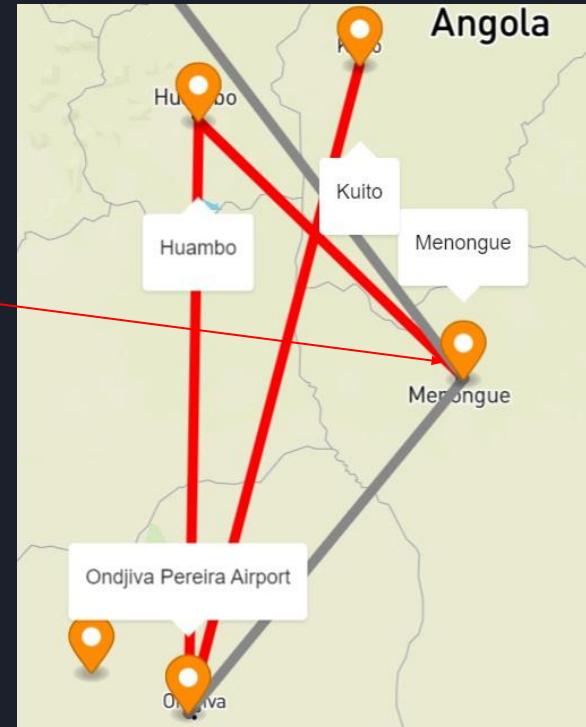
Choose Trip Date
28/10/2020

Choose airport
Kuito



Destination

Destination Menongue



Date of Trip

Date of Trip 2020-10-28



Trip Planning

Choose Country
Angola

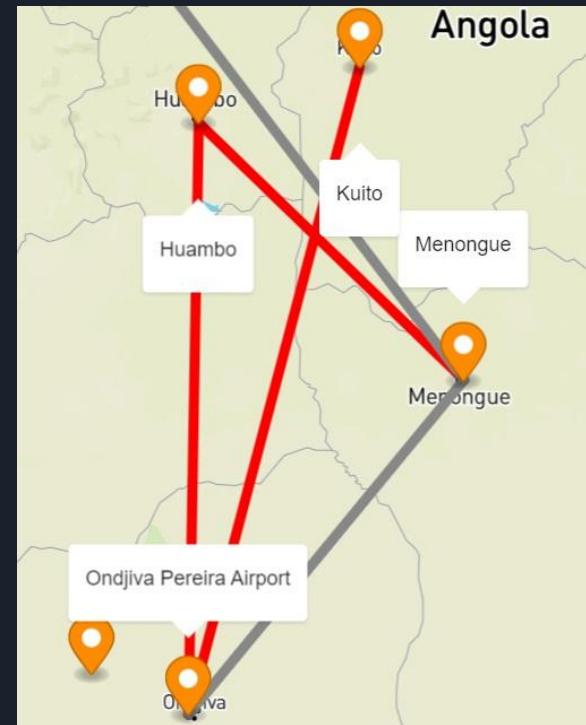
Choose Trip Date
28/10/2020

Choose airport
Kuito

Routes

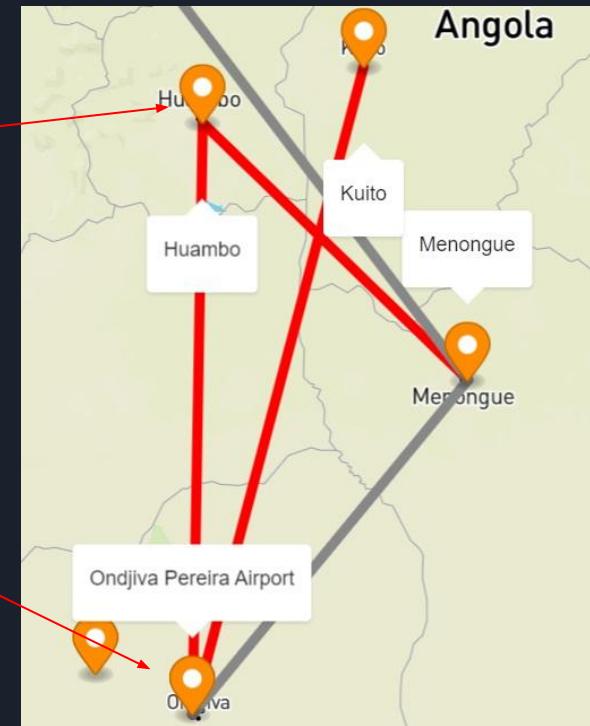
Routes

- 1) Kuito to Ondjiva Pereira Airport
- 2) Ondjiva Pereira Airport to Huambo
- 3) Huambo to Menongue

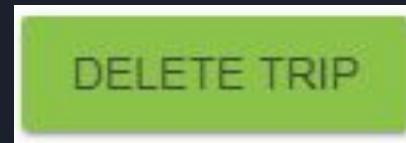


Total Number of Stops

Total Stops 2



Delete Trip Button



History Trip Page

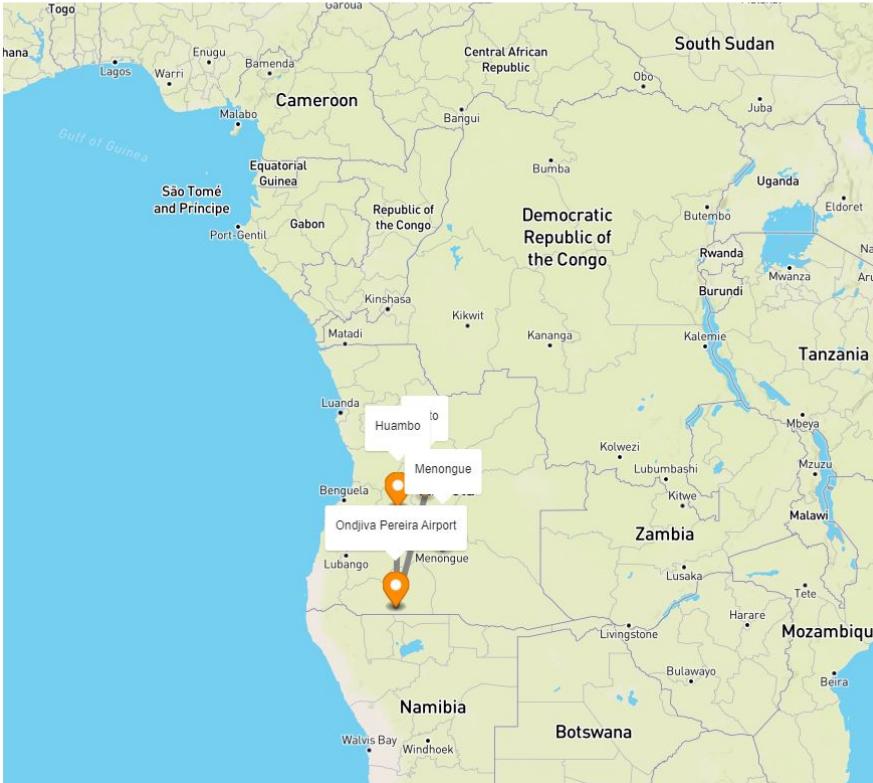
History of Trips

Name of Trip	Departure Location	Destination	Number of Stops	Flight Date	View More Details/Map Details
Christmas Trip	Kuito	Menongue	2	2020-10-28	VIEW MORE

History Trip Detailed Page



All Routes Scheduled Trips History of Trips Logout

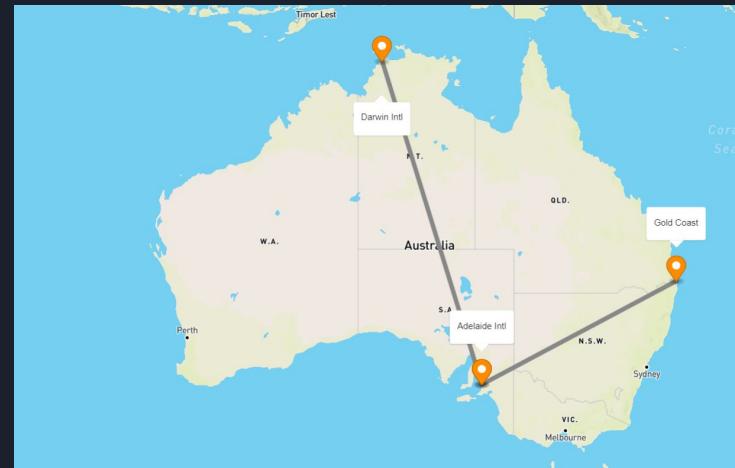


The map displays the central region of Africa, focusing on countries like Togo, Cameroon, Central African Republic, South Sudan, Democratic Republic of the Congo, Uganda, Rwanda, Burundi, Tanzania, Zambia, Malawi, Mozambique, Botswana, Namibia, and Angola. Key cities are labeled, including Lagos, Warri, Enugu, Bamenda, Garoua, Bangui, Bumba, Juba, Obo, Eldoret, Nairobi, Arusha, Butembo, Mwanza, Kalemie, Matadi, Kinshasa, Kikwit, Kananga, Luanda, Huambo, Benguela, Lubango, Kolwezi, Lubumbashi, Kitwe, Mwema, Mzuzu, Malawi, Livingstone, Lusaka, Harare, Tete, Bulawayo, Beira, Walvis Bay, Windhoek, and Menongue. A flight path is shown originating from Kuito, passing through Ondjiva Pereira Airport (indicated by an orange marker), and ending at Menongue. Another orange marker is placed near Lubango.

Trip Detail	
Trip Name	Christmas Trip
Departure	Kuito
Destination	Menongue
Date of Trip	2020-10-20
Routes	1) Kuito to Ondjiva Pereira Airport 2) Ondjiva Pereira Airport to Huambo 3) Huambo to Menongue
Total Stops	2

Design Decisions

- Consistent Design
- Green and White color scheme
- Material Design Lite (MDL) for User Interface
 - Layout - Fixed header
 - Headings - MDL chip
 - Tables - MDL data table
 - Buttons - MDL raised button with ripple effect
- Mapbox API to visually display trips
 - Interactive design
 - Orange Markers
 - Popup Text with location information
 - Grey lines connecting routes



MDL Textfield (Searchable Datalist)



Logo Image

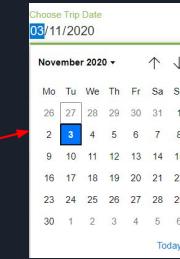
White Text Links

A screenshot of a "Trip Planning" form. It features a green header bar with navigation links: "All Routes", "Scheduled Trips", "History of Trips", and "Logout". Below the header is a "Choose Country" dropdown. A date input field with a calendar icon is labeled "dd/mm/yyyy Date". A "Choose airport" dropdown is shown. At the bottom are three buttons: "UNDO LAST ROUTE", "CONFIRM", and a large green "SUBMIT" button.

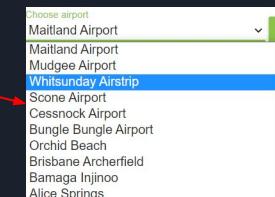
MDL Chip
Headings

MDL Buttons

MDL Textfield (Date Input)

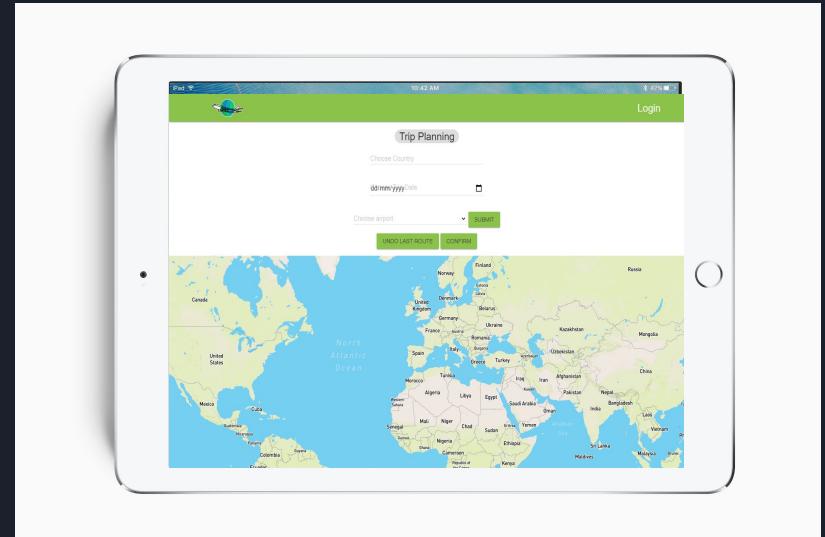


MDL Textfield (Drop Down List)



Hardware Requirements

- Primarily designed for a tablet in landscape mode.
- The application could also work on other devices but the user experience and user interface may be compromised.





Limitations

DESIGN

- Designed for landscape orientation on a tablet
- MDL design limitations
- Airports with many routes

FUNCTIONALITY

- Local storage limitations
- No integration with airlines or travel agents to facilitate bookings
- International Trips

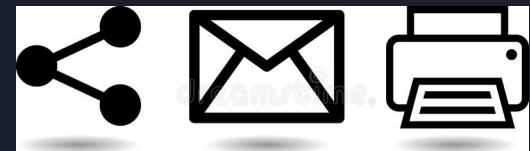
Future Development

DESIGN

- Dynamically change UI for the current hardware being used

FUNCTIONALITY

- Introduce Cloud based storage
 - Access your account from anywhere
- Automatically detect current location and nearest airport
- Integrate application with third party travel agents
 - Book and pay for the flight in the application
 - Show more information on the routes, including time of the flight, airline, ticket information, etc.
- Expand functionality to include International trips
- Expand functionality to include other transport modes (train, bus, etc.)
- Options to print and share trips





Conclusion