



UI Assignment

Assignment Brief:

Here, we want to implement Flight search functionality. You have a form, where user can input and search for the flights. Take the user input from the search form and perform a search on the flight JSON data and display the valid search results in the results section. Flight result should contain both **non-stop** and **multiple** (multi airline) flights.

Wireframes for assignment:

One Way Flights:

Flight Search App

One Way

Return

Enter Origin City

Enter Destination City

Departure Date

Return Date

Select Passengers

Search

Pune (PNQ) to Delhi (DEL)

10 flights found Wed, 30 October

Air India

AI-101

05.00

Pune

07.00

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

05.00

Pune

07.00

Delhi

02h 00m

Non stop

₹ 3,876

Book

Multiple

[Show details](#)

05.00

Pune

09.00

Delhi

04h 00m

Total duration

₹ 9684

Book

Air India

AI-101

05.00

Pune

07.00

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

05.00

Pune

07.00

Delhi

02h 00m

Non stop

₹ 3,876

Book

2

One Way flights: Multi airline - Expanded view:

Flight Search App

One WayReturn

Enter Origin City

Enter Destination City

Departure Date

Return Date

Select Passengers▼

Search

Pune (PNQ) to Delhi (DEL)
10 flights found Wed, 30 October

Air India

AI-101

05.00
Pune

07.00
Delhi

02h 00m
Non stop

₹ 3,876

Book

Spice Jet

SJ-102

08.00
Jaipur

09.00
Delhi

01h 00m

Layover time 01h 00m

Air India

AI-101

05.00
Pune

07.00
Delhi

02h 00m
Non stop

₹ 3,876

Book

Multiple

[Hide details](#)

05.00
Pune

09.00
Delhi

04h 00m
Total duration

₹ 9684

Book

One Way and Return flights: Split View

Flight Search App

One Way

Return

Enter Origin City

Enter Destination City

Departure Date

Return Date

Select Passengers

Search

Pune (PNQ) to Delhi (DEL)

10 flights found Wed, 30 October

Delhi (DEL) to Pune (PNQ)

15 flights found Thu, 31 October

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Multiple

Show details

Pune

Delhi

04h 00m

Total duration

₹ 9684

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Multiple

Show details

Pune

Delhi

04h 00m

Total duration

₹ 9684

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Air India

AI-101

Pune

Delhi

02h 00m

Non stop

₹ 3,876

Book

Rules to follow:

- Use this **URL** to make an **API** call from the browser and fetch mock flight JSON response
 - <https://tw-frontenders.firebaseio.com/advFlightSearch.json>
- 'Origin city'** and **'destination city'** dropdown inputs should have a type ahead like search behaviour. The drop down menu should show the following airport cities and their respective codes:
 - Pune (PNQ)
 - Mumbai (BOM)
 - Bengaluru (BLR)
 - Delhi (DEL)
- There are two tabs for **One Way** and **Return** flights in the search form. The **Return date** input should be visible on basis of the tab selected.

4

4. Given a user wants to fly from **City A** to **City C**, following type of flights could be shown:
1. Direct flight from **City A** to **City C**
 2. A multi airline flight from **City A** => **City B** => **City C**
 3. The layover time for multi airline flight should be a minimum of **30 minutes**.
Layover time is the waiting time for a passenger at the airport between arrival at **City B** and departure for the next flight from **City B**
 4. The price of multi airline flights should be summed and displayed
 5. The total flight duration for multi airline flights should be summed and displayed.
This should also include the total layover time in between two multi airline flights.

Expected output:

For the following Origin, Destination and Date inputs, their respective flights should appear in the results list.

	Origin	Destination	Departure Date (YYYY/MM/DD)	Results	
				Non-Stop	Multi Airline
1	Pune (PNQ)	Delhi (DEL)	2020/11/01	AI-104	AI-101 => AI-102
					SJ-105 => SJ-106
2	Mumbai (BOM)	Delhi (DEL)	2020/11/01	AI-110	TW-108 => TW-109
3	Delhi (DEL)	Pune (PNQ)	2020/11/02	AI-131	AI-119 => AI-120
					SJ-115 => SJ-116
4	Delhi (DEL)	Mumbai (BOM)	2020/11/02	AI-130	TW-118 => TW-119

***Note - These are not the only results. The actual number of results might vary. Other flights may also appear in the result list depending on the flight data set. But, the flights given in the expected result above should appear in the list given their respective query.**

What are we looking for:

- Code quality, structure and organization
- Clear separation between business logic and the UI layer
- Implementation should be modular enough to support any logical extensions to the functionality
- Simplicity and ease of understanding the code
- Understanding of JavaScript as a programming language, CSS and HTML
- Creativity in terms of look and feel of the application
- Unit tests
- Make the page responsive

Brownie points:

- The price of the flight results should be multiplied by the no. of passengers selected
- Add a price slider at the bottom of the search form. The result list should get filtered as per the values selected in the price range slider.

Please refer the image below:

