

Flight Search Tool

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Instructions to run

1. Open the application in one of the code editors. Install Node.js if it's not installed in Computer.
2. Run the command "npm install" in terminal to install all the node-modules file.
3. Run the command "npm start" in terminal to run the application on local server port 3000.
4. Open the application in Local Browser with URL "http://localhost:3000/" to run.


Implementation Details

1. I have used Express.js framework to design the application.
2. All the DB connection information is stored inside .env file
3. The User Interface is implemented using EJS and Bootstrap.
4. Datpicker is added for user to choose Departure Date and Return Date.
5. The Autocomplete Text is added for Departure Airport and Arrival Airport. The Airport information is fetched from MySQL database to put inside suggestions.
6. Input validations for Dates.
7. The grid on the left display Origin → Destination flight while the grid on right display Destination → Origin.
8. The REST API fetch all 15 flights from origin to destination.
9. I have used geolib npm library to calculate the nearest airport from origin and destination. The library calculates the nearest airports using LatLong information.
10. After getting the 10 nearest airports the REST APIs is used to obtain one result each for all the 10 airports.
11. If there are no flights returned by the API it will not be added to List and application will show only the available flights around nearest airports.

Application Screenshots

1. Home Page

Home



Flight Search Tool

Find the best flight deal from nearest selected airports.

Departure

YYYY-MM-DD

Return

YYYY-MM-DD

From

From

To

To

Search Flight

2. DatePicker

Departure

YYYY-MM-DD

« February 2020 »

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
1	2	3	4	5	6	7

3. Autocomplete the Airport Name

From

Du|

Du bai Airport (DXB)

Du blin Airport (DU B)

Bene du m Airport (CKB)

In du strial Airport (ROW)

Du tch Harbor Airport (DU T)

Raleigh/ Du rham Airport (R DU)

Jefferson County Airport (DU J)

Du buque Municipal Airport (DBQ)

Du luth International Airport (DLH)

Du sseldorf International Airport (DU S)

4. Input Validations

Departure	Return
<input type="text" value="2020-01-08"/>	<input type="text" value="2020-02-28"/>
From	To
<input type="text" value="Chhatrapati Shivaji International Airport (BOM)"/>	<input type="text" value="Newark Liberty International Airport (EWR)"/>
<input type="button" value="Search Flight"/>	
<div>Departure date cannot be in past</div>	

5. Input Data



Flight Search Tool

Find the best flight deal from nearest selected airports.

Departure

2020-02-12

Return

2020-03-20

From

Newark Liberty International Airport (EWR)

To

Paris Orly Airport (ORY)

Search Flight

6. Sample Result

Departure

2020-02-20

Return

2020-03-16



From



Newark Liberty International Airport (EWR)



To



Paris Orly Airport (ORY)

Search Flight



	ident	Type	Business	Economy	
	DJT101	A321	76	0	
Origin		Destination			
Newark Liberty International Airport (EWR)		Paris Orly Airport (ORY)			
Departure		Arrival			
Thu, 20 Feb 2020 00:30:00 GMT		Thu, 20 Feb 2020 07:50:00 GMT			

	ident	Type	Business	Economy	
	DJT100	A321	76	0	
Origin		Destination			
Paris Orly Airport (ORY)		Newark Liberty International Airport (EWR)			
Departure		Arrival			
Mon, 16 Mar 2020 09:30:00 GMT		Mon, 16 Mar 2020 18:10:00 GMT			

	ident	Type	Business	Economy	
	DJT101	A321	76	0	
Origin		Destination			
Newark Liberty International Airport (EWR)		Paris Orly Airport (ORY)			

	ident	Type	Business	Economy	
	DJT102	A321	76	0	
Origin		Destination			
Paris Orly Airport (ORY)		Newark Liberty International Airport (EWR)			

7. Single Result Grid

	ident	Type	Business	Economy	
	DJT101	A321	76	0	
Origin			Destination		
Newark Liberty International Airport (EWR)			Paris Orly Airport (ORY)		
Departure			Arrival		
<i>Thu, 20 Feb 2020 00:30:00 GMT</i>			<i>Thu, 20 Feb 2020 07:50:00 GMT</i>		