

Application: FlightWeb

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I. Architecture:

- ASP.NET MVC5 (Framework 4.5.2)
- **Pattern Used:** Generic Repository Pattern
- **BDD:** EF 6.1 CodeFirst.
- **Reporting:** Crystal report

II. Used Libraries:

- Google Maps API
- PageList
- AutoMapper

Note: I used JsonFile (airportsFR.json) to load list of airports in DropdownLists (Departure & Destination). Another approach is to use WebAPI.

III. Flight:

1. List of Flights:

[Flight Repository](#) [Home](#) [Fuel Consumption](#)

Flight List

[Add New Flight](#) [Summary Report](#)

Flight Name:

Flight Name	Departure Airport	Destination Airport	
Flight1	Laon - Chambry Airport	Limoges Airport	Edit Details Delete Fuel Consumption
Flight2	St Aubin Airport	Valenciennes-Denain Airport	Edit Details Delete Fuel Consumption
Flight3	Croisette Heliport	Laon - Chambry Airport	Edit Details Delete Fuel Consumption
Flight4	Croisette Heliport	Dunkerque les Moeres Airport	Edit Details Delete Fuel Consumption

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[1](#) [2](#) [»](#)

2. Add New Flight:

New Flight

Flight Name

Flight distance (m)

Departure Airport

St Aubin Airport

Flight time (s)

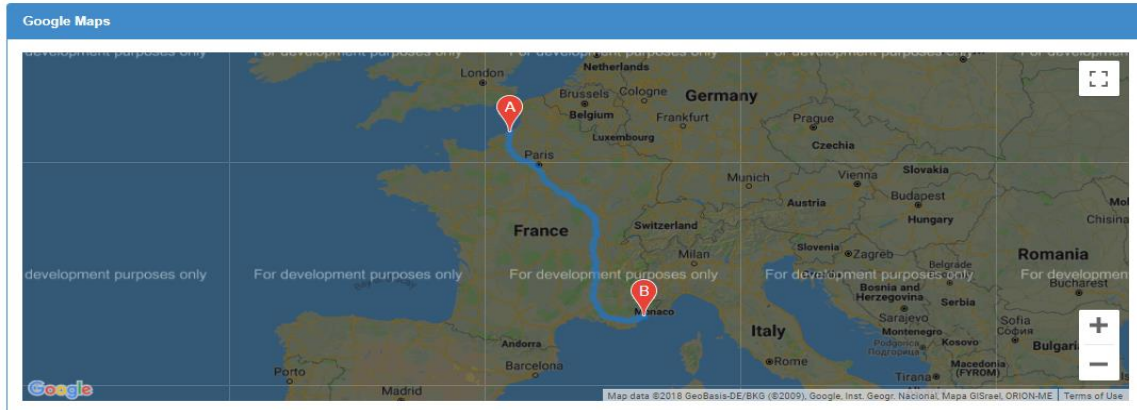
Destination Airport

Croisette Heliport

Save

Return to List

Route Segment: 1
From : Aérodrome de Dieppe-Saint-Aubin, 76550 Saint-Aubin-sur-Scie, France
To : Boulevard de la Croisette, 06400 Cannes, France
Duration : 10 hours 14 mins
Distance : 1,092 km



3. Edit a Flight:

Edit Flight Details of Flight1

Flight Name

Flight distance (m)

Departure Airport

Paris-Orly Airport

Flight time (s)

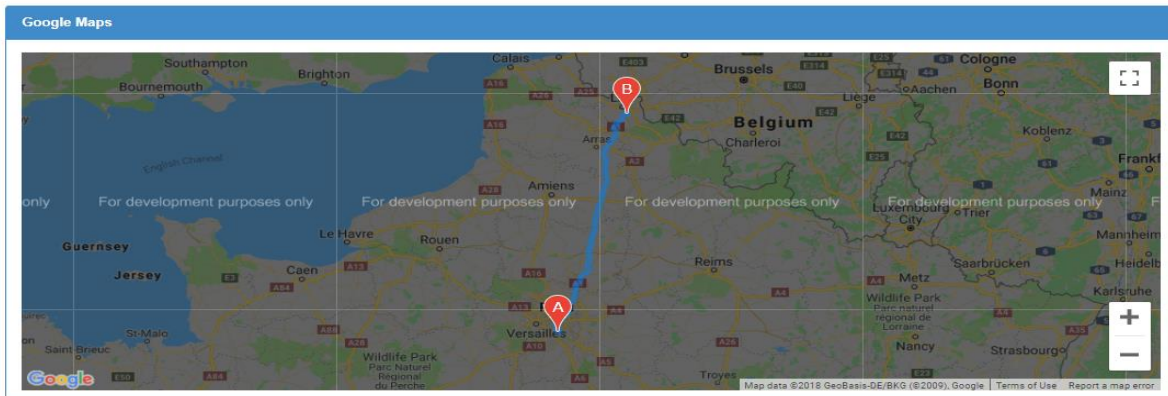
Destination Airport

Lille-Lesquin Airport

Save

Return to List

Route Segment: 1
From : Orly Airport (ORY), 94390 Orly, France
To : Aéroport de Lille-Lesquin, Route de l'Aéroport, 59810 Lesquin, France
Duration : 2 hours 25 mins
Distance : 231 km



4. Show flight details :

Flight Repository Home Fuel Consumption

Flight Details of Flight1

Flight Name Flight1
Departure Airport Laon - Chambry Airport
Destination Airport Limoges Airport
Flight distance (m) 557997
Flight time (s) 19833

Edit

Back to List

Route Segment: 1

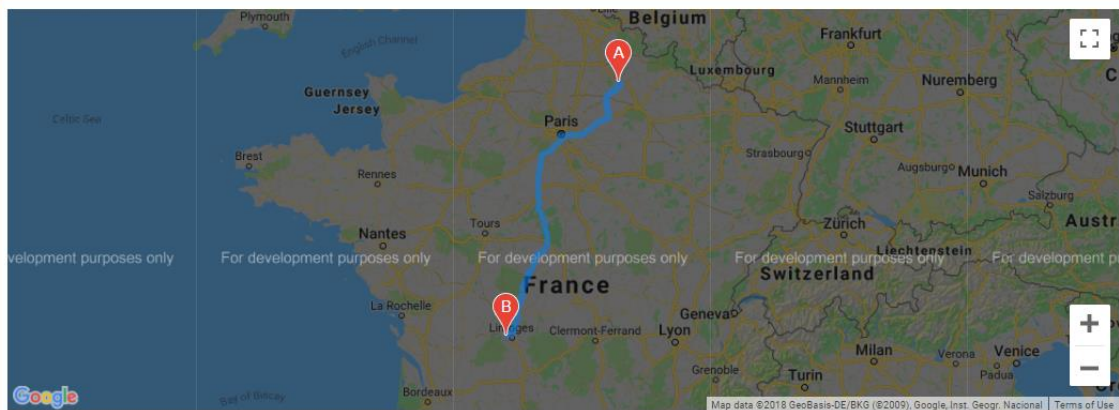
From : Aérodrôme de Laon - Chambry, 02000 Laon, France

To : Limoges Airport, 81 Avenue de l'Aéroport, 87100 Limoges, France

Duration : 5 hours 31 mins

Distance : 558 km

Google Maps



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5. Load a Summary Report :

LoadReport 1 / 1

Flight Summary					
09/08/2018					
FlightName	Departure Airport	Destination	Distance (m)	Time (s)	Fuel (l)
Flight1	Laon - Chambry Airport	Limoges Airport	557997	19833	59499
Flight2	St Aubin Airport	Valenciennes-Denain Airport	224507	8120	56840
Flight2	St Aubin Airport	Valenciennes-Denain Airport	224507	8120	32480
Flight1	Laon - Chambry Airport	Limoges Airport	557997	19833	176868
Flight5	Calais-Dunkerque Airport	Croisette Heliport	1204676	39186	2194416

IV. Consumption :

6. List Of Consumptions

Flight Repository Home Fuel Consumption

Consumption List						
Flight Name	Consumption per distance	Consumption per time	TakeOff Effort			
Flight1	2.00	3.00	4.00	Details	Delete	Edit
Flight2	17.00	7.00	6.00	Details	Delete	Edit
Flight2	3.00	4.00	8.00	Details	Delete	Edit
Flight1	99.00	9.00	9.00	Details	Delete	Edit

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7. Add new Consumption :

Flight Repository Home Fuel Consumption

Flight Name

Consumption per distance

Consumption per time

TakeOff Effort

Create

Flight1

10

9

8

Calcul par : Distance Time

Flight distance (m)

Flight time (s)

Fuel Needed

557997

19833

178505

Back to List

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8. Edit a consumption :

Flight Repository Home Fuel Consumption

Edit Consumption Details of Flight1

Consumption per distance

2.00

Consumption per time

3.00

TakeOff Effort

4.00

Calcul par :

Distance ☒ Time ☐

Save

Return to List

Flight distance (m)

557997

Flight time (s)

19833

Fuel Needed

1115998

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The screenshot shows the 'Explorateur de solutions' (Solution Explorer) in Visual Studio. The solution is named 'Solution \'Flight.Application\' (2 projets)'. It contains two projects: 'Flight.test' and 'FlightWeb'. The 'Flight.test' project has a 'TestCalcul.cs' file. The 'FlightWeb' project has a 'Connected Services' node, 'Properties', 'Références', and several folders: 'App_Data', 'App_Start', 'bin', 'Content', 'Controllers', 'DAL', 'fonts', 'Migrations', 'Models', 'obj', 'Reports', 'Scripts', and 'Views'. The 'Controllers' folder is expanded, showing 'ConsumptionController.cs' and 'FlightController.cs'. Other files include 'airportsFR.json', 'favicon.ico', 'Global.asax', 'packages.config', 'Project_Readme.html', 'Startup.cs', and 'Web.config'.

airportsFR.json × Details.cshtml Edit.cshtml Create.cshtml Create.cshtml FlightC

Schéma : <Aucun schéma sélectionné>

```
1  [
2    {
3      "iata": "JCA",
4      "iso": "FR",
5      "status": 1,
6      "name": "Croisette Heliport",
7      "continent": "EU",
8      "type": "heliport",
9      "size": null
10   },
11   {
12     "iata": "DPE",
13     "lon": "1.241111",
14     "iso": "FR",
15     "status": 1,
16     "name": "St Aubin Airport",
17     "continent": "EU",
18     "type": "airport",
19     "lat": "49.961388",
20     "size": "small"
21   },
22   {
23     "iata": "CQF",
24     "lon": "1.933333",
25     "iso": "FR",
26     "status": 1,
27     "name": "Calais-Dunkerque Airport",
28     "continent": "EU",
29     "type": "airport",
30     "lat": "50.95",
31     "size": "medium"
32   },
33   {
34     "iata": "XCP",
35     "iso": "FR",
36     "status": 1,
37     "name": null,
```

99 %

Sortie Liste d'erreurs... Paramètres d'exception Console du Gestionnaire de package