Take-Home Programming Test

For this test, please refer to the attached .txt document.  The text is commercial flight information.  Given this text, we want to see working source code that has the flights parsed out from the file into an object model of your design.  We’d also like a paragraph describing the process you went through to create the application and roughly the amount of time it took you.  You may code in either C# or VB .NET with option strict and option explicit ON.

We suggest you make use of regular expressions for this program.  For further code simplification, regular expression capture groups may be used for the specific fields.  Although the correct parsing result is required, code organization/clarity and domain modeling will be taken into account.

The necessary fields for each flight are:

LineNumber

Carrier

OperatingCarrier

FlightNumber

Classes

DepartureAirport

ArrivalAirport

DepartureTime

ArrivalTime

ArrivalTimeShift

Equipment

Ontime

Duration

Here are two examples to determine the mapping to the fields:

For Line 3:

3     LineNumber

UA    Carrier

US    OperatingCarrier

6352  FlightNumber

BMHK  Classes

DFW   DepartureAirport

LAX   ArrivalAirport

1200  DepartureTime

1448  ArrivalTime

ArrivalTimeShift

733   Equipment

Ontime

1:48  Duration

For line 18:

18    LineNumber

HP    Carrier

OperatingCarrier

497   FlightNumber

WBQL  Classes

DFW   DepartureAirport

LAX   ArrivalAirport

1700  DepartureTime

1943  ArrivalTime

+1    ArrivalTimeShift

319   Equipment

N     Ontime

1:43  Duration

If something isn't clear, take your best stab at it and try to infer what is meant, but certainly examine the two examples above to be clear on special cases.  Please create a text file where you enter your ideas, problems, assumptions, time, etc.  It is best if you zip your generated source files (including any associated proj or sln files) and attach the zipped file to your return email.

Feel free to use your favorite code editor for this test. If you don’t already have one, there are a number of excellent options freely available online, such as Visual Studio (Community Edition) or Visual Studio Code.

Good luck!  We look forward to speaking with you!

Thanks,