iasset.com Software Developer Technical Test

Congratulations on being selected to complete the iasset.com Software Developer Technical Test. Your first step in the iasset.com recruitment process is to demonstrate your understanding of design a solution and writing code in C#.

There is no time limit on this test but it would be in your best interest to complete the test as soon as possible so that you can progress to the next stage.

Project Instructions

1. Application should be written in either Visual Studio 2012/2013 using C#
2. Please target the .Net 4.5 framework
3. Must use ASP.Net MVC / Web API
4. You are free to use Knockout or AngularJS or ReactJS to get the task done in the UI but using AngularJS is a bonus
5. Must use Bootstrap for UX design
6. Create unit tests for the solution, you may use a unit test framework of your choice
7. Your code should be robust and handle error situations
8. Your code should be bug free, compile and work on all browsers

Notes

Comprehensive input validation is not required, but if the program does encounter an error it should display the error message to the user.

Code should be commented sparingly. The emphasis should be on readability. If a brief comment will help then use one otherwise let the code document itself.

Package Instructions

Prior to zipping up the solution please delete both the obj and bin folders. Once you have zipped the solution into one file then please email to careers@iasset.com with the subject heading:

"Software .Net Developer Technical Test"

Task

Design and develop an MVC/Web API dashboard that will manage daily flights inside an airport terminal gate.

User Stories

1) As a gate manager, I would like to view and query all my daily flights within the specific gate.
2) As a gate manager, I would like to add new flight to a specific gate. (see assumption #2)
3) As a gate manager, I would like to update arrival and/or departure time for specific flight. (see assumption #2 and #3)
4) As a gate manager, I would like to cancel a flight.
5) As a gate manager, I would like to assign a flight to another gate.

Assumptions

1) Default departure time is "ArrivalTime+29 mins" unless modified by user.
2) Do not store data in a database. You will have repository at Data Access Layer to initialize the objects. For the sample data, consider at least 2 gates and 10 flights on each.
3) By default overlap time is 30 minutes between each flight. If flight A arrives at 10.00AM the next flight should arrive to gate at or after 10.30AM. We assume disembarking flight will take less than 30 mins unless modified by the user.
4) If you cannot update the flight because of overlap issue, you either need to push the rest of the flights or assign it to another available gate.
5) The terminal only shows today schedules from 12:00AM to 11:59PM.