SMT C++ Coding Assessment- Tic Tac Toe

Here is the coding assessment we ask candidates to complete before the next steps in the process.

Below are the requirements for the assessment. Please send the completed exercise to me when you are done. Thank you again for your time.

The requirements are as follows:

Overview:
·   Write code in C++ to track a game of tic-tac-toe played by two human players.
·   Use one of Microsoft's Visual Studio products and include your solution files, project files, etc..
If you don't already have access to one of their products you can download a free community edition here.

Details:
·   There should be no user interface for the game.
·   The code should have unit test coverage a simple testing module (this could be a separate application or function).
·   The code should be written so that a tic-tac-toe interface could use it.
·   It should track all player moves on the game board and not allow invalid moves.
·   It should track the status of the game (e.g., game over, who is winner, etc.).
·   Player X always moves first.

Rules:
·   Work on this independently.
·   Work no more than 4 hours on it.
·   Document how much time you spent on it.
·   Document any assumptions you make since you don't have the opportunity to ask questions.
·   Be ready to share and discuss the code.

Game rules and background:
http://en.wikipedia.org/wiki/Tic-tac-toe

Please contact me if you have any questions about this.