**Sudoku Assignment**

**Implementation of a Sudoku Web Service**

Please show us how you implement a RESTful web service that can validate successive moves on a Sudoku board. It should also be able to recognize and indicate if the Sudoku is finished with the current move.

**Assumptions**

* Validation to be done on every entry made by the user and not at the end after all the cells are filled.
* As mentioned in the scope section of the provided pdf, the code is written only for the puzzle provided.
* As random boards need not be picked, it was assumed that hard coding can be done for simplicity of the program. If Dynamic boards had to be considered, then it could be done using Json file as the input.

**Web Services**

* **GET :** [**http://localhost:8080/sudoku/puzzle/**](http://localhost:8080/sudoku/puzzle/)

**Description**: This service reads the puzzle as is. It can be used to display the puzzle in the frontend UI to the users. Also the same service can be used to reset the puzzle if the user wants to start from the beginning.

**PUT :** [**http://localhost:8080/sudoku/puzzleSol/{val}/{row}/{col}**](http://localhost:8080/sudoku/puzzleSol/%7bval%7d/%7brow%7d/%7bcol%7d)

**Description**: This service validates the successive moves made by the user. If it is a valid move it updates the grid. It also makes sure that the fields which are the actual puzzle values cannot be modified by the user and only the blank cells are editable. It also provides an update if the puzzle completes. Following HTTP status are used in this service

* OK : Puzzle completed
* Accepted: Valid entry in a cell
* Not\_Acceptable: Invalid entry in a cell
* Locked: Read only fields. User not allowed to edit.

**NOTE: Due to time constraints I have not considered exceptional handling and loggers.**