

Backend Developer Test

Test Requirements

Lights Out is a puzzle game consisting of an $n \times n$ grid of lights. At the beginning of the game, some of the lights are switched on. When a light is pressed, this light and the four adjacent lights are toggled, i.e., they are switched on if they were off, and switched off otherwise. The purpose of the game is to switch all the lights off.

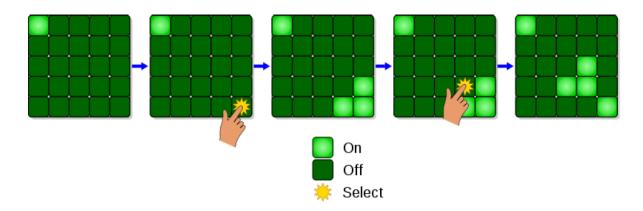


Image from Wikipedia.

Implement the game for a 5 by 5 grid in the .Net environment. The game has to start with some lights turned on, and the user keeps playing till he either gives up or turns off all the lights.

All the game settings(such as board size, etc..) should be retrieved from an API, and the settings should be stored in a database.

So the final solution should contain:

- An application which will allow the user to do the actions on the board
- A Rest API that get all the settings from the DB, and the initial state of the game (on and off lights).
- A DB which contains the settings of the game. Can be MS Sql, MySql, etc.. (please submit all the scripts to re-create the tables and data).

There is no need to focus too much on the interface of the game. A simple console or WinForms application is enough.

Project delivery

Once the project is completed please send us back the running project with all the code, you can send us a link of the repository where your project is saved or send us the complete folder. Include in the solution any documentation and test cases required and any tests written for this solution.