



## ASSIGNMENT FOR “FRONTEND DEVELOPER” POSITION

# Mini Minesweeper

Let implement a frontend version of Minesweeper with below description.

- Screens:
  - Welcome screen: user can choose the level then start the game.
  - Game screen: Base on the level, create a grid buttons with the size base on the level, then play the game.
- Rule of game:
  - When user click on a button on grid, this button will open and display:
    - Empty (blank) if there is no mine around that button
    - Display the <number> to hint that the there are <number> of mines around that button. Ex: 2 => there are 2 mines around that button.
    - A mine if it's a mine and then user lose the game.
  - User win the game if open all of non-mine button.
  - There are 2 levels (user will choose level in welcome screen):
    - Beginner: grid size: 9x9 and mines is 10
    - Advantage: grid size: 16x16 and mines is 40
  - Time will be started when user clicks the first button.
  - When user wins/loses the game, show a popup/modal that “you won/lost the game in hh:mm:ss”. And 2 button:
    - New game: restart the game.
    - Home page: navigate user to welcome screen
  - When user loses the game, should display all mines
  - Bonus: If user click to an Empty button, let explore around until get the barrier
- API: there is an API server to help you generate mines list with below level
  - Beginner: <https://tiki-minesweeper.herokuapp.com/getMines?size=9&mines=10>
  - Advantage: <https://tiki-minesweeper.herokuapp.com/getMines?size=16&mines=40>
- Reference: <http://minesweeperonline.com/>

### Technical requirement:

- Frontend library: React or Vue
- State management: you can use Flux architecture (redux, mobx, vuex, flux are welcome)
- You can use any library you want, but keep in mind why you use it
- Bonus point: Unit test
- Bonus point: deploy to heroku/firebase/github.io

