1   Problem

To test your knowledge and understanding of the subjects discussed in previous labs, you are given a considerably larger program to analyze and apply concepts of:

- black-box analysis

- white-box analysis

- gray-box analysis

Deja-vu, or deja-reversed engineered, you are receiving again a Minesweeper game to crack. Download the binary from here[1]. The archive password is infected and has only one executable Windows file.

2   Tasks

Perform the following tasks:

- Access to the game is allowed only after entering a valid key. Understand how the validation system works and make your own software to generate random valid keys. (20p)

- Reveal all the bombs in the game, for all 3 levels of difficulty. (40p)

- Change the game such that all positions have a bomb. (20p)

- Write "RE" on the board using bombs, only on the highest level of difficulty. (20p)

3   What to send

For the grading, you need to send:

- Detailed descriptions of what you did to solve each objective.

- Any logs/traces you consider important in your analysis.

- Everything relevant resulting from your analysis in IDA Pro or other RE software.

4   Where/when to send

There will be a Homework Assignment added to the Microsoft Teams channel. You will be able to send all your files and get feedback there.

The assignment can be solved until the 25th of May 2023, 23:59 (hard deadline).

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[1]https://cs.unibuc.ro/ crusu/re/Minesweeper.zip