

Introduction to Artificial Intelligence

Summer 2022

EXERCISE 3: Two people deterministic games

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This exercise is done in pairs.

1. Exercise details

Write a program that plays *tic tac toe* with the user on a 3×3 board. The game continues until one of the players wins or it is a draw. The first player to get 3 of his/her marks in a row (up, down, across, or diagonally) wins.

Algorithm: min-max with alpha-beta pruning.

The game may be played on the console and the interface may be as simple as possible (but of course it does not have to).

2. Technical details

- a. The preferred language to write your solutions is Python, however solutions in C++ or Java also will be accepted.
- b. Remember to adhere to basic standards of clean coding (with comments in the crucial parts).
- c. The clear instruction how to run the code should be attached.

3. Handing-in guidelines

- a. You should submit the source code of your solutions to tomasz.lehmann.dokt@pw.edu.pl not later than:
 - i. **2022.04.06 15:59:59 GMT+1 for the Wednesday group**
 - ii. **2022.04.08 11:59:59 GMT+1 for the Friday group**
 - iii. **2022.04.11 15:59:59 GMT+1 for the Monday group**

Programs delivered after the deadline will not be assessed.

- b. Please include "[EARIN] Exercise 3" in the title, and do not forget about adding names and emails of both team members in the email content.
- c. You may get 0-7 pts for this assignment.
- d. In case of questions, please contact me via the given email address.
- e. The information about consultations and assessments mode (on-line/in-class) will be delivered later.