**Riga Technical University**

Faculty of Computer Science, Information Technology and Energy

**Report on the first practical assignment**

Study course "Fundamentals of artificial intelligence"

Team number: /team number/

Students: /first name, last name, student ID/

Teaching staff: Alla Anohina-Naumeca

Project/code link: /link/

2024/2025 academic year

# Statement of use of AI tools

<in case of using artificial intelligence tools in the development of the assignment, include a list of the tools used (name, year, version, link) and the purpose of the use of each of the tools (generation of the report text, developing the game algorithms and data structures of the game, developing the user interface of the game, generating ideas or receiving inputs for the heuristic evaluation function, debugging the generated code, obtaining additional explanations, designing experiments, etc.)>

# Demonstration example of the software

<this section should include (1) a description of the game and the changes that were made to it, if applicable, and (2) screenshots showing the game course and the choices to be made, and explanations of them>

# Description of data structures and algorithms

### Description of data structures:

<a description of the data structures used to store the game tree, with detailed comments on what is stored in each data structure>

### Description of a heuristic evaluation function:

<a detailed description and justification of the heuristic evaluation function>

### Description of algorithms:

<code of the main algorithms implemented in the software (generating a game tree, assigning heuristic values to graph nodes, applying a game algorithm, finding winning paths) together with explanations. The code must be added to the report in text form only. It is not allowed to add it as a set of images>

Comparison of algorithms:

<a comparison of the algorithms and the conclusions drawn by the student team>

# Information sources

# Appendix 1

< all software code that corresponds to the implementation of the game and not to the creation of the graphical interface>

# Appendix 2

<in case of using artificial intelligence tools in the development of the assignment, add screenshots of all the prompts entered by the student team in a specific AI tool and all the answers provided by the tool; both the prompts and the answers must be visible in full and in good quality>