nFactorial AI Cup – Game track
Competition Model
April 7 – 9, 2023

nFactorial School on this track offers you a different type of programming task. Instead of developing programs that aim to ensure the correct output of all the judge's test data, participants develop programs that compete with the programs of other competitors. Each participant's program competes in a game simulation, and the winner is determined by climbing the grid to the final.

The coding stage of this contest will last for 42 hours, from **07.04.2023 18:00** to **09.04.2023 12:00**.

Success is the result of developing and implementing a reliable player with a well-thought-out strategy and correct foresight of the strategies used by their opponents. This document describes how the AI Cup - Game track will be conducted.

Coding Phase

At 18:00 on April 7, 2023, a description of the problem will be made available on [Telegram channel](). Competitors has to **fork** [this repository]() to have access to a copy of the game and some sample code for players.

By the end of the coding phase, 12:00 on April 9, 2023, competitors must submit the final version of their player. The last version submitted before this deadline is considered the competitor's final submission.

Player Operation and Organization

Players may be implemented in either C/C++ or Java. Each turn, the player interacts with the game by reading game states from standard input and writing a desired move to standard output.

Source code for a player may consist of multiple files, but all files must reside in a single directory. Java implementations should place all classes in the default package.

Submissions can include source files and data files supporting the player, but the submission for a single player cannot exceed 256 kilobytes in total size and 50 individual files. A player's source code and any other submitted files will be available in the current directory during execution.

For C/C++ submissions, all files ending in .cpp will be compiled and linked together into an executable. During compilation, the submission directory will be the current directory.

For Java submissions, all files ending in .java will be compiled. Only one main function is expected in the resulting classes, and that class will be executed as the player.

Submission language is determined by the file name extensions used in the submission. Submissions that contain a mixture of Java and C++ files will be considered invalid, as will submissions do not compile or do not have a single entry point.

Compile/Execute Environment

The specifics of the execution environment may be subject to change before the coding phase begins. This section describes what is currently anticipated.

Java submissions will be compiled and run with version openJDK 19.0.2 , and C++ submissions will be compiled with version 11.3.0 of g++.

Attempts to access other system resources (e.g., read from files elsewhere, create network connections, start new processes) may result in disqualification.

Submission Interface

Competitor must submit the program in forked repository, fill the README.md file according to the template, fill this [typeform](#)

Additional Information

All information about how to start the game, test it and what commands are available located in the **game.pdf**