Magnolia-Technical Assignment-Frontend

The challenge is to program a simple version of the game Battleships. Create an application to allow a single human player to play a one-sided game of Battleships against ships placed by the computer.

The program should create a 10x10 grid, and place a number of ships on the grid at random with the following sizes:
• 1x Battleship (5 squares)
• 2x Destroyers (4 squares)

The player enters coordinates of the form "A5", where "A" is the column and "5" is the row, to specify a square to target. Shots result in hits, misses or sinks. The game ends when all ships are sunk.

You can write a console application or UI to complete the task.

Try to code the challenge as you would approach any typical work task; we are not looking for you to show knowledge of frameworks or unusual programming language features. Most importantly, keep it simple.

The average time typically spent on this task is approximately 6 hours, which gives you a general benchmark of what we expect. That said, how you choose to approach and manage your time is entirely up to you.

As a quality-focused company, we encourage you to incorporate relevant quality features where applicable. Please also include any notes or additional details in your documentation as needed.

We also appreciate it if you briefly share what aspects you would have refined or expanded upon, had you had more time—this gives us insight into your thinking and priorities.

According to our Declaration of AI use and Skill verification (see below), in case you decide to use any agentic development, please provide your guideline files for the agent and a history of all your feedback and interaction with it.

We expect you to provide your solution using a GIT repository.
The deadline for completing the assignment is **5 business days.**

Thank you for your understanding and cooperation.
Best of luck! 🤓

Declaration of AI use and Skill verification

As part of our commitment to transparency and fairness in the hiring process, we'd like to inform you about Magnolia's policy regarding the use of AI tools during assessments and interviews.

Declaration of AI Use
We expect mutual transparency around the use of AI. If you choose to use AI tools (e.g., generative AI for coding or language refinement) at any point during technical assessments or interviews, you are required to disclose this.

Skill Verification
While the use of AI as a supportive tool is permitted, we ask that you clearly report which AI application(s) were used and how they contributed to your work. It's important that your knowledge and understanding can be demonstrated without overreliance on AI.

Our policy is in place to ensure we fairly and accurately evaluate each candidate's skills and potential.