**BATTLESHIP GAME - README**

**Overview**

This is a console-based Battleship game implemented in Python. It supports:

* Local multiplayer (2 players on same computer)
* Single-player vs AI with Easy, Medium, and Hard difficulty levels
* 20x20 game board with ship placement validation
* Two missile types: Regular (single cell) and Quad (entire row or column)
* Undo functionality (one undo per player per game)
* Game timer (8 minutes)
* Score tracking and winner display

**HOW TO RUN**

1. Ensure Python 3.x is installed on your system.

2. Download the `battleship.py` file.

3. Run the game from the terminal/command prompt:

python battleship.py

4. Follow on-screen instructions to:

* Select game mode (vs AI or local multiplayer)
* Select AI difficulty if applicable
* Place your ships on the board
* Take turns attacking opponent’s board using missiles
* Optionally undo a move once per game
* Play until all ships are sunk or timer expires

**CONTROLS**

* + Input coordinates as row and column numbers separated by space (e.g., `5 7`)
  + Choose missile type by entering `R` for regular or `Q` for quad missile
  + For quad missile, choose whether to attack a row or column when prompted

**FEATURES**

* + Validates ship placement to avoid overlaps and out-of-bounds errors
  + Adaptive AI strategies for challenging gameplay
  + Real-time score updates and board display
  + Undo last move once per player
  + Timer adds urgency to gameplay
  + Multiple missile options
  + Hit/Miss detection

**DEPENDENCIES**

* + Standard Python 3 libraries only; no external packages required

**KNOWN ISSUES**

* + Input validation is basic; please enter inputs as requested
  + No network multiplayer support (local play only)

**AUTHOR**

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  + 1st May, 2025

Enjoy the game!

REWRITTEN

README for Battleship Game

Summary

A Python command-line Battleship game. Qualities:

- Local multiplayer (two players on the same PC)

- Easy, Medium, and Hard difficulty settings for single-player versus computer

- A 20x20 game board with a legitimate ship location

- Regular (single cell) and Quad (entire row or column) are the two types of missiles.

- The ability to undo (one undo per player while playing)

- A game timer that lasts eight minutes

- Maintaining score and announcing the winner

How to Run

1. Verify that Python 3.x is installed on your computer.

2. Get the `battleship.py` file.

3. Launch the game using the command prompt or terminal: python battleship.py

4. Select the game mode (local multiplayer or vs AI)

- and, if playing against AI,

- select the AI difficulty by following the on-screen directions.

- Place your ships on the board and use missiles to alternately attack the opponent's board.

Controls

- Enter coordinates in row and column numbers separated by a space (e.g., `5 7`).

- Enter the type of missile by typing `R` for a regular missile or `Q` for a quad missile.

- Decide whether to attack a row or a column with a quad missile when asked.

Features

- Validates ship placement to prevent out-of-bounds errors and overlaps.

- Real-time scorekeeping and board display.

- Adaptive AI strategy for difficult gameplay.

- The ability to undo a player's last move once.

- A timer to introduce a sense of urgency to gameplay.

Dependencies

- No outside packages necessary; only standard Python 3 libraries necessary.

Known Issues

- No network multiplayer functionality (local play only); - Little input validation; please input inputs as requested

Author

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Date

- 1st May, 2025