

Execution Steps - Battleship Game

1. Prerequisites

Before running the game, make sure you have:

- .NET 8 SDK (Download: <https://dotnet.microsoft.com/download>)
- Node.js (Download: <https://nodejs.org>)
- Visual Studio (Download: <https://visualstudio.microsoft.com>)
- Visual Studio Code (VS Code) (Download: <https://code.visualstudio.com>)

2. Running the Backend (C# .NET API)

1. Navigate to the backend folder (BattleshipAPI).
2. Open the solution file using Visual Studio and run the API solution file.
3. The API will start and display.

Now listening on: <https://localhost:7080>

3. Running the Frontend (React)

1. Open a new terminal.
2. Navigate to the frontend folder (ReactApp).

```
cd ReactApp
```

3. Install required packages.

```
npm install
```

4. Start the React app.

```
npm start
```

5. The game will open in your browser at:

<http://localhost:3000>

4. Running the Console Version (C#)

1. Open a new terminal.
2. Navigate to the console game folder (BattleshipConsole).
3. Run the console game using visual studio.
4. The game will start, and you can enter shot coordinates (e.g., 'A5').

5. How to Play

- Click on the grid (React) or enter coordinates (Console) to fire shots.
- Battleship (size 5) is visible, but Destroyers (size 4) are hidden.
- Game feedback includes Hit (🔥), Miss (❌), and Sunk (💀).
- Win Condition: The game ends when both Destroyers are sunk.
- Click 'Restart Game' to play again (React) or type 'RESET' in the console.

6. Stopping the Game

- Backend → Press Ctrl + C
- Frontend → Press Ctrl + C
- Console Game → Press Ctrl + C