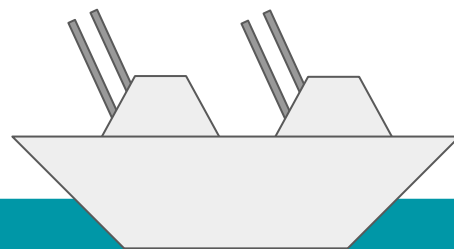
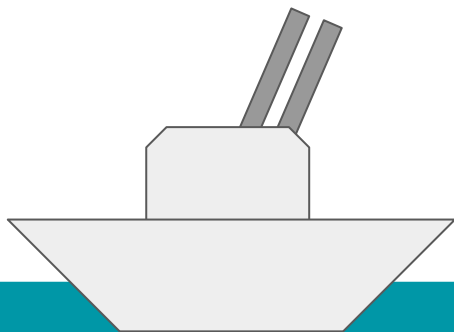




Battleships

By Nathan, Caspian, & Tazkia



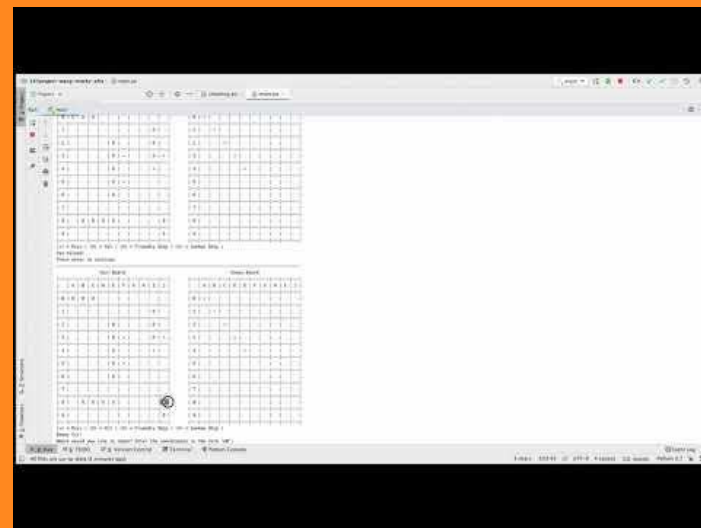
- Battleship is fun
- Seemed challenging
- Easy to break into parts
- Requires playtesting
- Utilizes Matrices

Why?

How it works:

- Rules
- Ship placement
- Rock, paper, scissors to determine the first shooter
- Player shooting
- Smart AI shooting

Demonstration



Things We Used

List

- Ships
 - Allows ordered placement
- Targets
 - Keeps track of damaged ships

Matrix

- Boards
 - Allows simple display for player board and enemy board

Dictionary

- Ship locations
 - Allows us to easily check sunken ships
- Player Input
 - Reference dictionary to "read" player input

Challenges

→ Smart AI shooting

- ◆ Shooting intelligently without “cheating”
- ◆ Detecting when to turn around and shoot the other way
- ◆ Shooting out of bounds
- ◆ Shooting adjacent ships

→ Placement

- ◆ Discouraging adjacent placement
- ◆ Recording ship locations

→ Sink and Win Detection

- ◆ Printing results (converting X's to V's) instantaneously

→ GUI

- ◆ Hiding enemy ships from the player

Thank you!

