

A black and white photograph of a battleship at sea, viewed from a distance. The ship is dark, with its complex superstructure and masts visible against a bright, hazy sky. The water is dark and shows some whitecaps. The title 'Project: Battleship' is overlaid in large, bold, white sans-serif font across the center of the image.

Project: Battleship

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What is Battleship?

- A classic two-player game.
- Each player sets up their five ships on a screen the other can't see, and then they try to sink each other's ships; whoever sinks them all first wins.



Data Structures

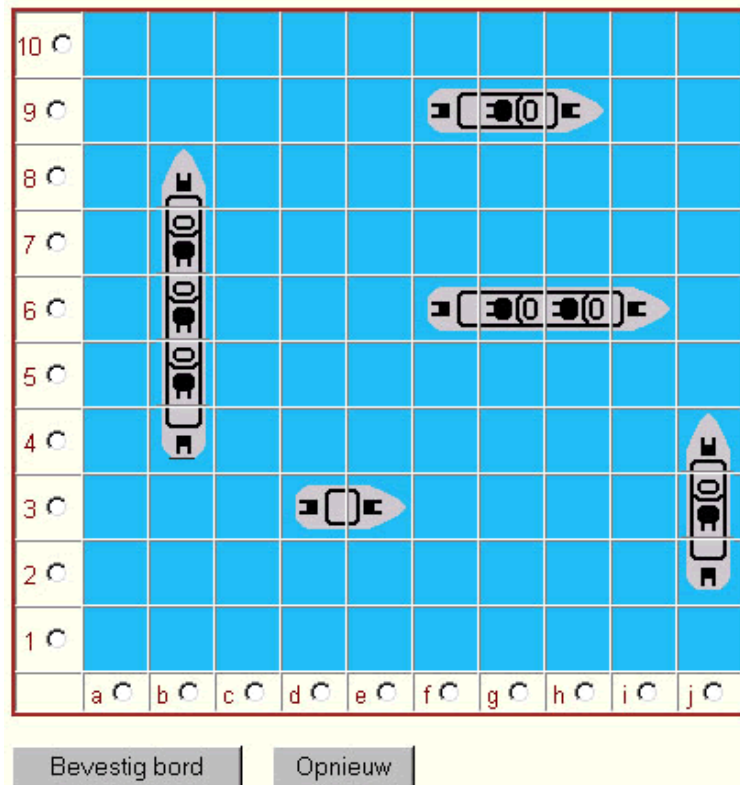
- LinkedList - list of top 5 scores, percentage of games won, average score. Note: score by number of shots required to win.
- Stack - undo purposes; will only remember the last 3 moves. May also add another stack for redo purposes.

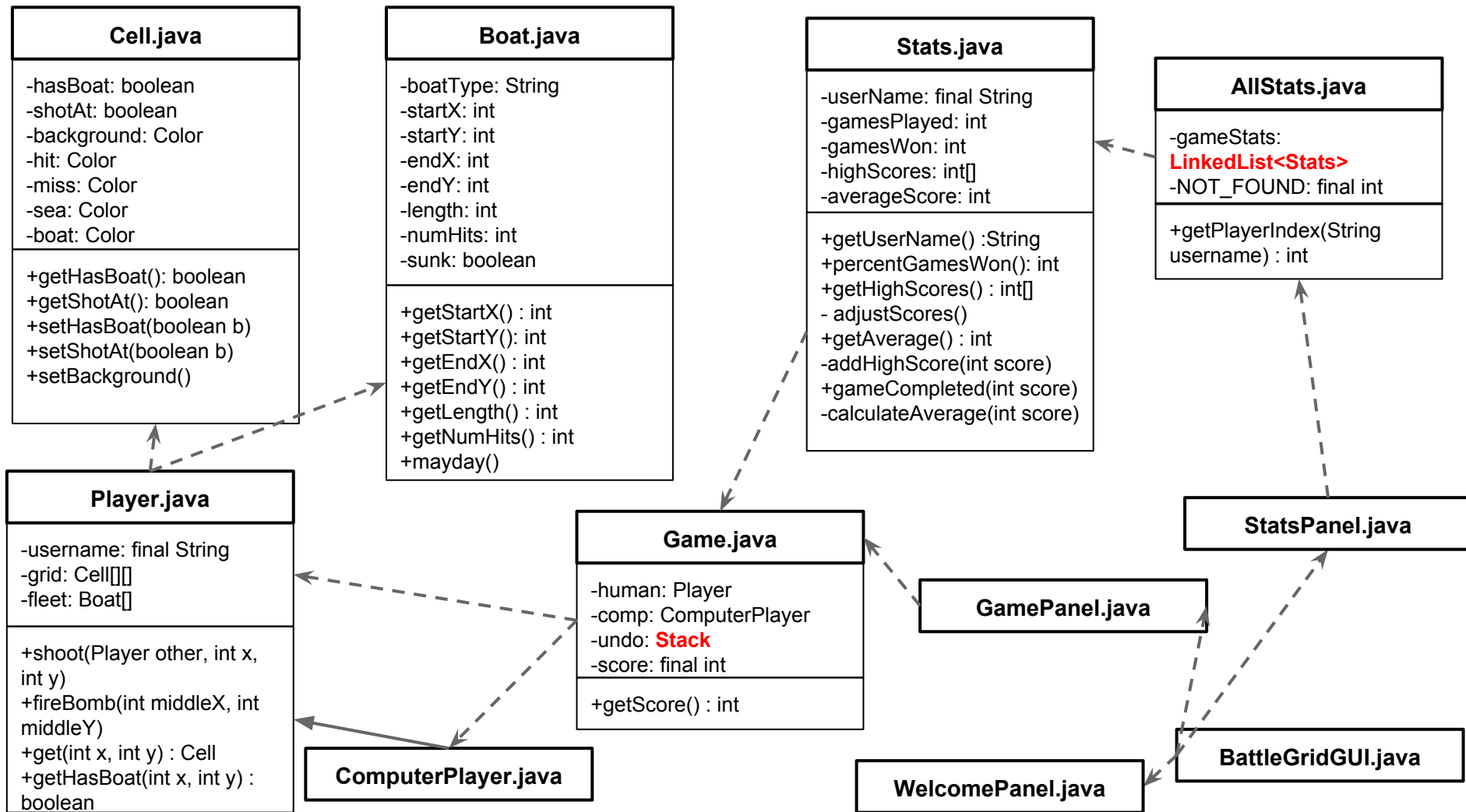


Stages of Creation

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- **Boat size: 1x1, Grid size: 5x5**
- Boat size increases, Grid size: 5x5
- Boat size varies, Grid size: 10x10



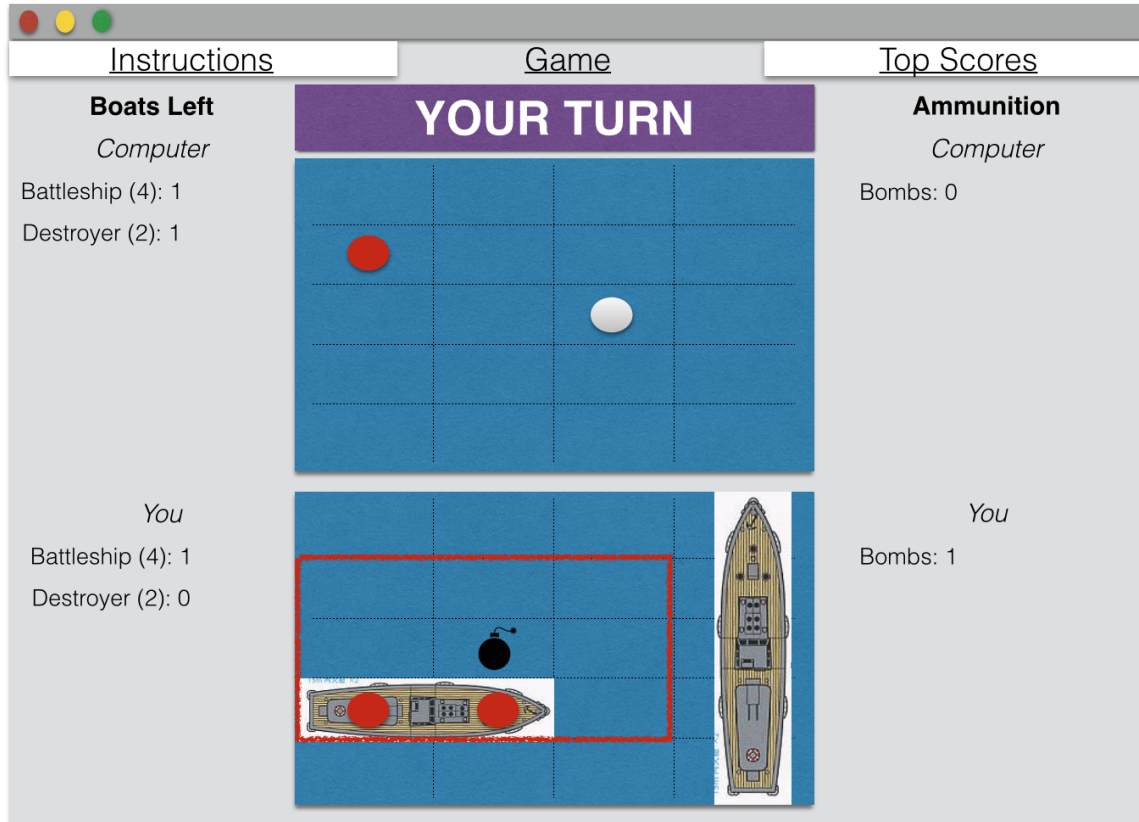


User Interface

UI: GamePanel.java



UI: WelcomePanel.java



UI: StatsPanel.java

Instructions Game Top Scores

Top Scores

<u>Top 5 Scores</u>	<u>% of Games Won</u>	<u>Average Score</u>
1.....
2.....		
3.....		
4.....		
5.....		

Interesting and difficult parts

- Clickable cells to select where the start and end coordinates of the boat are (need to coordinate with underlying 2D array)
- Bombs (3x3 radius)
- Undo (and potential redo)
- Layering of cell and boat
- Computer shooting behavior

