

BATTLESHIP

Semestrální práce B0B39KAJ

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April 14, 2020

1 Description

Battleship is a strategic guess game against the bot. It is played on two grids each divided into 100 squares. The left/upper one is for the player and the right/lower one is for the bot. Grids are used to mark the fleets of ships of the players. The locations of enemy's ships are hidden. The player and the bot take turns trying to find and shoot each other's ships. The goal of the game is to destroy the enemy's fleet.

2 Game rules

1. Game grid size is 10x10 squares.
2. The player and the bot have 10 ships of 4 types each. Ship's type depends on his length:
 - 1 four-square ship
 - 2 three-square ships
 - 3 two-square ships
 - 4 one-square ships
3. Every ship has 2 directions - vertical and horizontal.
4. Min margin distance between ships is 1 square.
5. Game starts after the ships have been positioned.
6. The player and the bot don't see each other's ships.
7. The player and the bot take turns trying to destroy each other's ships.
8. Every time someone misses a shot, the move is turned over.
9. When all of the squares of a ship have been hit, the ship is destroyed.
10. Game ends when all enemy's ships are destroyed. A game can't end in a draw.

3 Game-play

Game has tree state:

- **Preparation**

Press the "New game" button in the aside menu.

Mark your 10 ships on your left/upper grid using one of the following options:

- Hover your cursor and choose ships' positions. To fix use "mouse left click" and you can rotate your ships using "space button".
- Randomly generate the position of your fleet by using "Generate" button in the aside menu.

- **Play**

When ships are positioned the player starts the game.

In each turn use "mouse left click" to shoot enemy's ship on the right/down grid. When you miss the bot takes turn. The game proceeds in a series of turns till all ships on either grid are destroyed.

- **Game Over**

The game is over when all of the ships are destroyed, either of the bot - then you win, or of you - then you lose.

4 Settings

Game has 4 levels. Player can choose one at any game state in the aside menu.

- **Easy**

Bot always shoots randomly.

- **Medium**

Bot shoots randomly and tries to finish off a hit ship.

- **Hard**

Bot tries to finish off a hit ship and do

- **Insane**

Bot tries to finish off a hit ship. If it misses, it will remember where the ship is. It always tries-hard to find the best shot.