Snake game

Use case

Use Case 1: Play snake game

Goal in Context: Users attempting to obtain the longest snake possible

Scope: Snake game

Level: Primary task

Primary Actor: User

Priority: Must have

Frequency: Commonly

Trigger: Users want to beat the snake game.

MAIN SUCCESS SCENARIO

1. User start game.
2. System displays the game (map, snake, food).
3. User choose the direction of movement of the snake.
4. System go toward the direction that the user selects.
5. User repeat steps 3-4 until the snake eat food.
6. User snake's eat food.
7. System displays a snake that grew up.
8. User repeat the steps 5-7 until the snake fulfills all the map (snakehead hitted itself)
9. System displays the result of the game.

Domain model

```
+-------------------------------+
|            Game               |
+-------------------------------+
| board: board                  |
| bordSize: int                 |
| foodCount: int                |
+-------------------------------+
        |
       1...1
        |
       1...1
+-------------------------------+                         +-------------------------------+
|           Board               |                         |            Cell               |
+-------------------------------+          1...*          +-------------------------------+
| cells: Cell[][]               |--------- 1...1 -------- | head: boolean                 |
| size: int                     |                         | snake: boolean                |
+-------------------------------+                         | food: boolean                 |
                                                          +-------------------------------+
```