"Wiki"

The below sections contain what our wiki should contain.

Updated user stories for Milestone 3

1. As a player, I want the system to keep track of where my ships are.
2. As a player, I want to be able to choose a coordinate and for the system to tell me whether I hit a ship or missed it.
3. As a player, I want the system to tell me when my ship has sunk.
4. As a player, I want to be able to use the sonar pulse in place of a turn twice in a game, once I have sunk at least one of the opponent's ships.
5. As a player, if I hit the captain's quarters of one of the opponent's ships, I want the whole ship to sink, unless the quarters is armored, in which case I want the ship to sink if I hit it twice.
6. As a player, I want to know if I've won the game.

Planning game/CRC card iterations

We made a few changes to our CRC cards as suggested to us in our previous interview grading session. Here are our new CRC cards (only for the requirements for Milestone 3, not for the extra requirements).

Player	
Initialize player grid Keep track of player grid Keep track of player ships Keep track of Sonar pulses used	Grid Ship Coordinate

Grid	
Handle adding ships to grid Keep track of the status of each ship Handle hitting ships Handle printing the grid Handle sonar pulse	Ship Coordinate

Ship

Size, type, location Pieces hit Sunk/not sunk	Coordinate

Coordinate	
Hold a coordinate on an x-y axis Hold a value that indicates whether the ship at that coordinate is hit or not Hold a value that indicates whether piece is captain's quarters or not	Ship

Time estimates and time spent

We estimated that creating all of our classes and testing them would take around 4 hours total. Milestone 2: It took a bit longer than that, about 5 or so hours across all of our workloads.
Milestone 3: It took 2 hours combined (Tuesday's time allotted) and 2 hours per person to complete the requirements of this milestone.

Project risks

We weren't totally sure about what this part of the rubric meant, so we went with "risks" in terms of the extreme programming reading. Using the Risk Index from here, we sort our user stories by risk. Since the base requirements of the game are fairly straightforward, we only identified *low* and *medium* levels of risk based on this index.

Low (0-1)
1. (0) As a player, I want to be able to choose a coordinate and for the system to tell me whether I hit a ship or missed it.
   a. Completeness: 0
   b. Volatility: 0
   c. Complexity: 0
2. (1) As a player, I want the system to tell me when my ship has sunk.
   a. Completeness: 0
   b. Volatility: 0
   c. Complexity: 1
3. (1) As a player, I want to know if I've won the game.
   a. Completeness: 0
   b. Volatility: 0

c.   Complexity: 1
Medium (2-4)
   4.   (2) As a player, I want the system to keep track of where my ships are.
        a.   Completeness: 0
        b.   Volatility: 0
        c.   Complexity: 2
   5.   (3) As a player, if I hit the captain's quarters of one of the opponent's ships, I want the whole ship to sink, unless the quarters is armored, in which case I want the ship to sink if I hit it twice.
        a.   Completeness: 0
        b.   Volatility: 1
        c.   Complexity: 2
   6.   (3) As a player, I want to be able to use the sonar pulse in place of a turn twice in a game, once I have sunk at least one of the opponent's ships.
        d.   Completeness: 0
        e.   Volatility: 1
        f.   Complexity: 2

Meeting minutes

10th Feb 2021
Meeting with TA. Following suggestions:
   -   Add to Log class - Responsibility - Determine game status (i.e. winner / loser)
   -   Add a new class for the abilities players can use in their turn - "Abilities" - Heal and Sonar included in that

16th Feb 2021
Implemented following tests using JUnit:
   -   All tiles in grid EMPTY at initialization
   -   Name, length and sunk (boolean) of ship

TODO:
   -   Implement set coordinates of ship - John
   -   Each subtype of ship and ask Dwight about expectation from milestone 2- Sagarika
   -   Implement Player class - Filip
   -   Implement Main class - Elizabeth

23rd Feb 2021
Use cases:
   -   Place ships on their grid
   -   Take a turn
   -   Hit the captain's quarters

- Sonar Pulse

Divided groups for HW2:
- Sagarika and Filip
- Elizabeth and John

24th Feb 2021
Milestone-2 meeting with TA:
Issues:
- Cannot implement the wiki (solution suggested: update in Documents folder in git)
- Test coverage - coordinates testing issue

2nd Mar 2021

During meeting:
- Merge branch that has captain's quarters functionality into master
- Planning sonar
- Update Wiki
- Testing - write tests for new features: captain's quarters and sonar pulse
- Implementation

TODO:
- Clarify about captain's quarters
- Add tests - sonar
- Add captain's quarters and sonar
- Update wiki
- Add tag