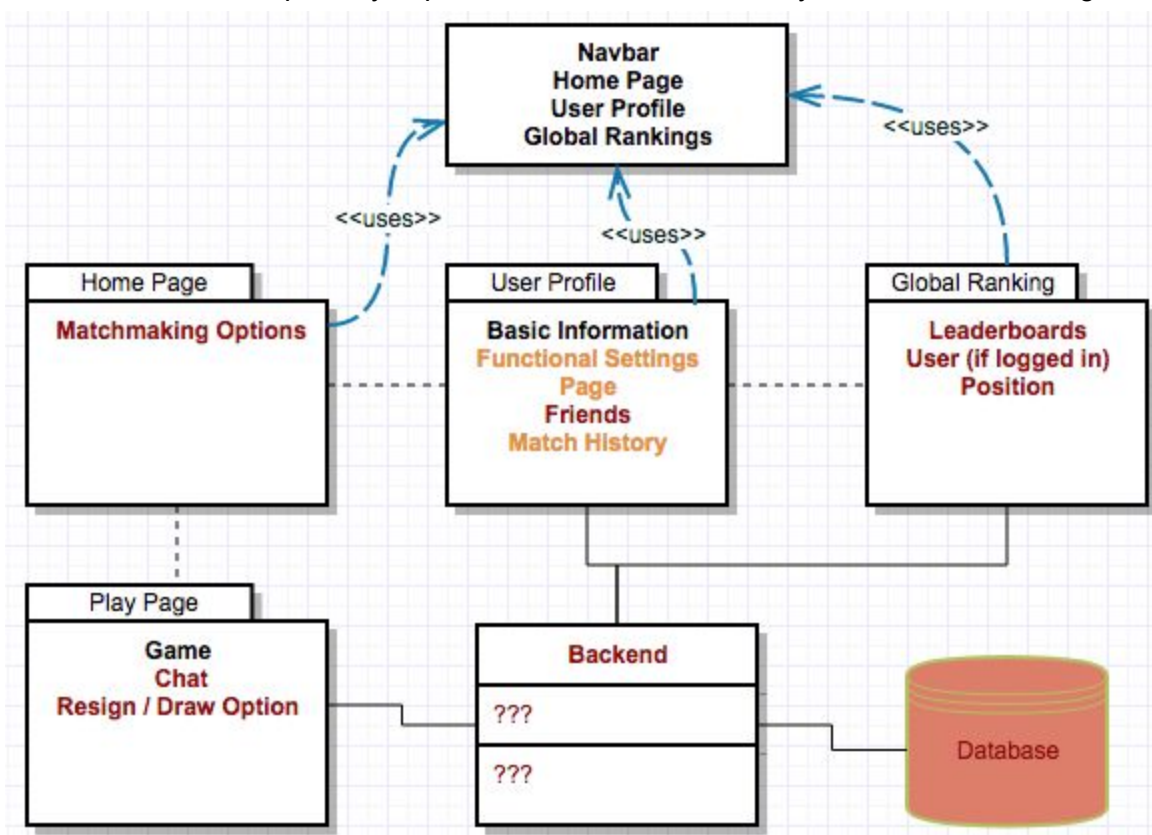# BoilerChess

Team 18 - Product Test Plan

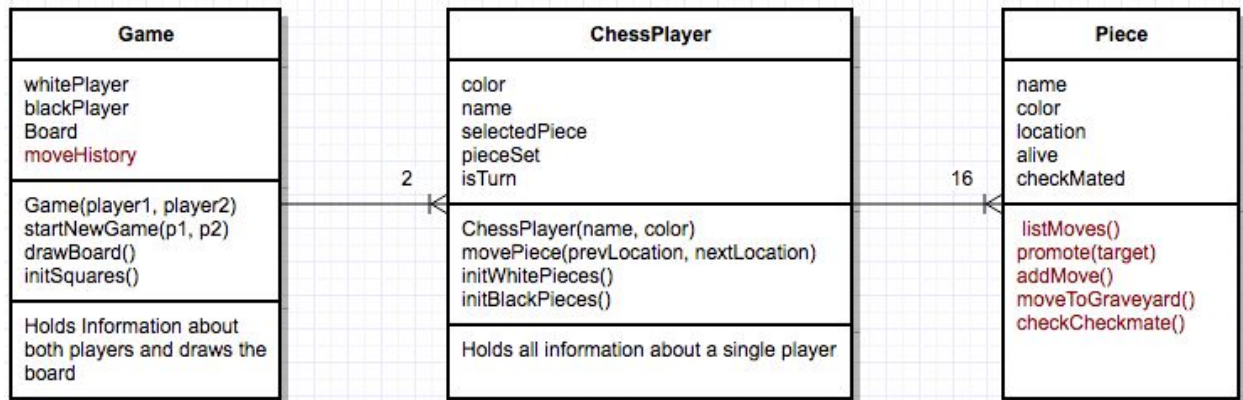Brendan Raftery, Eric Lee, Kyle Copenhaver, Nick Zetzl, Sam Kwarteng

1. Classification of Components

It is worth noting that at this time most of the project is not complete. Almost all aspects of the project have not been completed by their assigned team members, and the parts which have had work done on them are still inoperable due to having no Back-end.

In the diagram below, items which weren't complete/ couldn't be completed are listed in Red. Items which are partially implemented but lack necessary backend are in orange

Since the Play page and the actual Chess game are the most fleshed out/ intricate part of the completed project, the relationships are detailed below

2. Incremental and Regression Testing

Chess.js

Incremental Testing

Num	Description	Severity	How Corrected
1	Possible to double move pawns through units	Medium	Added check to prevent forward movement space in front of pawn was occupied
2	Rooks can take enemy units when ally is in the way	Medium	Added check to prevent behavior
3	movePiece used deprecated global white/blackPieces variables	Low	Updated to reflect Players owning pieces
4	drawBoard used deprecated global white/blackPieces variables	Low	Update to reflect Players owning pieces
5	Game was difficult to manage and maintain due to not have central location for all information	High	Created Game class which owns 2 player classes who own all of their pieces
6	Dead Pieces have nowhere to go and can occupy same space as other pieces	High	Added "alive" variable to piece to determine whether or not piece is displayed

Num	Description	Severity	How Corrected
1	drawPiece() occasionally rounds up, causing 2 pieces to be rendered in same spot	Low	Add Math.floor() to relevant functions
2	Crash caused when rendering board after piece was taken	High	Changed drawBoard() to list tiles instead of units and tiles
3	Hard to read text on black tiles	Low	Change text to more readable size and color

Front-End Elements

** Without back end support, Front end elements have minimal testable features

Incremental Testing

Num	Description	Severity	How Corrected
1	No sanitization on input	High	Added sanitization
2			

Regression Testing

Num	Description	Severity	How Corrected
1	Failure to load ELO from backend crashes user badge in User Profile	High	Used JS "mustaches" to input variable and replaced w/ dummy for now

3. Product Backlog Update

Given that 3 members of the group have not committed any lines of code, the goals for the upcoming sprint have been massively scaled back. Instead of creating a social media based chess game, we will be lucky to finish a split screen version to be played locally.

Backlog ID	Functional Requirement	Hours	Status
1	As a user, I would like to be able to create a profile which contains my email, username, password, matchmaking rating(MMR), match history, and statistics.	40	In-progress
2	As a user, I would like to be able to recover and/or change my account password by being sent a link by email when I select forgot/change password	14	
3	As a user, I would like to see my profile which will show the email, username, MMR, match history and statistics.	10	In-progress
4	As a user, I would like to be able to see a global leaderboard listing the top players' usernames, rank, and MMR as well as my rank on the leaderboard.	6	
5	As a user, I would like to be matched to the opponent that's MMR is closest to my own and within the range of MMR specified by me when playing ranked.	14	
6	As a user, I would like to have a list of friends that displays whether they are currently online or not and allows me to invite them to play a game.	24	
7	As a user, I would like to invite someone to play an unranked game by sending an email with a link that invites them to accept or decline the invitation. Neither player is required to log into an account.	40	Stretch Goal for Sprint 2
8	As a user, I would like to be able to chat with my opponent in a chat box that can be hidden and reopened.	16	Stretch Goal for Sprint 2

9	As a user, I would like to be able to resign or offer a draw.	6	Planned for Sprint 2
10	As a user, I would like the ability to report my opponent for harassment.	26	
11	As a user, I would like a display showing all the past moves of the current game.	6	Planned for Sprint 2
12	As a user, I would like review all moves of past games by selecting them in the match history.	14	Planned for Sprint 2
13	As a user, I would like squares to be highlighted that are valid moves for the currently selected piece when it is my turn	6	Planned for Sprint 2
14	As an administrator, I would like to be able to ban, remove and edit user accounts.	16	
15	As an administrator, I would like to be able to view chat history around the time of the reported incident	10	
16	As an administrator, I would like to be able to see a list of current games with their details	20	
17	As an administrator, I would like to be able to join and view an ongoing game.	28	
18	As a user, I would like to see the current population of the site.	6	