

# SPIT

## Design Inspection, Code Inspection and Unit Testing

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## Design Inspection Defect Log

Product	Front-End Design Inspection		
Date	2/27/17		
Author	Marty		
Inspectors	Byron, Nicky, Nick		
Defect #	Description	Severity	Correction Method
1	Game-type animations are difficult to achieve in React as opposed to something like Canvas. First animation prototypes were difficult.	2	Switched to using CSS3 Animations assigned to specific classes.
2	Cards were represented as components and would remain static. This did not allow for easily integrating animations as layout would shift around if objects moved.	2	By the end of Sprint 2 restructured code so that there are static Card components and Card components that are absolutely positioned and can move over other elements without changing the layout.
3	We didn't design the front-end for constant animations being triggered.	3	By end of Sprint 2 we will have an animation queue controlled by requests from the backend.
4	Changing name was not designed to be done after it was set. We want users to be able to reset their names later.	1	By end of Sprint 2 we will have a button on the main page, if a user has already registered, to rename the user.

Product	Database Design Inspection		
Date	2/27/17		
Author	Nick		
Inspectors	Byron, Nicky, Austin, Marty		
Defect #	Description	Severity	Correction Method
1	The leaderboard is not showing the amount of wins and losses for each player	3	A method that maps the database information to the format of the front-end
2	The website doesn't allow the user to see a replay of the game	3	A subroutine that puts the user into spectate mode and updates the game page based on the game information stored in the DB.

Product	Backend Design Inspection		
Date	2/27/17		
Author	Nick		
Inspectors	Byron, Nicky, Austin, Marty		
Defect #	Description	Severity	Correction Method
1	At the end of the game the game data was not being stored in the DB.	2	Use the existing Mongoose game schema to save data to the DB.
2	Users are not allowed to leave a lobby once they join	1	Remove user from lobby list when they leave the lobby
3	If a user becomes inactive the game cannot continue because spits do not occur unless there are no possible moves left. An inactive user may have moves causing the game to get stuck in a limbo state.	2	After 3 seconds with no moves the game will auto spit.

## Code Inspection Defect Log

Product	Backend Code Inspection		
Date	2/27/17		
Author	Nicky		
Inspectors	Marty, Byron, Nick		
Defect #	Description	Severity	Correction Method
1	The hands were being indexed differently in the front-end and back-end causing the server to crash.	1	Standardizing the index method for both the front-end and back-end.
2	The user is not allowed to change their username after it is set.	2	TODO: Add code to allow users to change names.
3	Server didn't update game state of spectators	2	Added spectators to list of clients receiving game state updates.
4	Allowed spectators to make moves for player 1	1	Prohibited spectators from making moves

Product	Game Front End Code Inspection		
Date	2/27/17		
Author	Marty		
Inspectors	Byron, Austin, Nick		
Defect #	Description	Severity	Correction Method
1	Username shows up as null if users register with an empty name	1	Users must enter something in order to register

Product	Database Code Inspection		
Date	2/27/17		
Author	Nick		
Inspectors	Byron, Austin, Marty, Nicky		
Defect #	Description	Severity	Correction Method
1	The backend is not sending the game data to the database when a game ends.	2	Build an endgame method that builds a Game mongoose object and saves that item in the database.
2	Users are not being assigned a ranking	3	Edit endgame method to update each of the user's total score based on their performance in the game.

Product	Game Logic Code Inspection		
Date	2/27/17		
Author	Byron		
Inspectors	Nicky		
Defect #	Description	Severity	Correction Method
1	Invalid moves on the first turn can cause the backend to crash	1	Standardizing the way cards are indexed on the front and backend

Product	Landing Page Code Inspection		
Date	2/27/17		
Author	Marty		
Inspectors	Byron, Austin, Nicky		
Defect #	Description	Severity	Correction Method
1	Sometimes the username shows up as empty on the home screen.	1	In this case the backend should redirect to the registration page.

## Testing Defect Log

When commits are pushed to Github, or a Pull Request is open, TravisCI automatically runs our test suite. Additionally, these tests, powered by Mocha and Karma, are automatically run whenever changes are made locally, so that no one will ever push broken code. Our tests cover the frontend, backend, as well as the socket communication layer.

Product	Front-End Unit Tests		
Date	2/27/17		
Author	Nick		
Inspectors	Nicky, Byron, Marty		
Inputs	Keyboard input, mouse input, messages from backend		
Outputs	Messages to backend, front-end state changes		
Defect #	Description	Severity	Correction Method
1	None		

Product	Backend Unit Tests		
Date	2/27/17		
Author	Nicky, Byron		
Inputs	Messages sent from client		
Outputs	Makes changes in database and updates game clients.		
Defect #	Description	Severity	Correction Method
1	Server was not sending game updates to spectator clients  Input: getGameState(client)  Output: {error: "not in game"}	2	Sends game updates to spectator clients. Spectators view game from first player's perspective  Output: gameState info

2	<p>Spectators could make moves for player 1</p> <p>Input: makeMove(spectator, moveCmd)</p> <p>Output: the corresponding moveCmd method</p>	1	<p>Added a check that prevents spectators from making moves.</p> <p>Output: nothing</p>
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Product	Database Unit Tests		
Date	2/27/17		
Author	Nick		
Defect #	Description	Severity	Correction Method
1	<p>The end game method wasn't updating the values for the users.</p> <p>Inputs:</p> <p>saveGame()</p> <p>(takes a game and inserts it into the DB. Can take a game json with any</p> <p>gameID - String game's winner - Client game's players - Client[] game's total Moves - int game's moves - int)</p> <p>Output: Nothing</p>	2	<p>Used mongoose.update vs mongoose.save to update the data.</p> <p>Output : Nothing</p>