Detonating Baby Felines

Test Plan

**Prepared by**

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## Test Plan

### Context of the testing:

* + 1. Project
       1. The project to be tested is Detonating Baby Felines. This is a node.js application programmed with react.js and the library boardgame.io.
    2. Test items
       1. Server
       2. Client
    3. Test scope
       1. Functional requirements will be the primary focus of the testing. Non-functional attributes will be secondary. Any non-functional areas that are poor enough to harm the user experience observed in the tests will be prioritized secondary to the existing functional requirements.

### Test strategy:

* + 1. Test sub-processes
       1. Unit Testing
       2. System Testing
    2. Test deliverables
       1. Test Case Specification
    3. Test design techniques
       1. Equivalence Class partitioning
       2. Boundary value analysis
    4. Test environment requirements
       1. The testing environment will be on the non-production build for all unit tests
       2. The testing environment will be on the production build running in docker for all system tests

## Test Case Specification - System Testing

### Test cases

#### Load Lobby

* + - 1. Objective
         1. User loads the lobby successfully
      2. Traceability
         1. F1, F2
      3. Preconditions
         1. The user has loaded onto the homepage
      4. Inputs
         1. The user enters the name “User”
         2. The user clicks the enter button
      5. Expected results
         1. The user joins the lobby with the name “User”
         2. There are no rooms to join in the lobby
      6. Actual results and test result

#### See Rooms

* + - 1. Objective
         1. A user in the lobby can see a list of available games
      2. Traceability
         1. F2
      3. Preconditions
         1. The user is in the lobby
         2. Another user has started a game room
      4. Inputs
         1. None
      5. Expected results
         1. The user should be able to see the room in the room list
      6. Actual results and test result

#### Create Rooms

* + - 1. Objective
         1. The user creates a room
      2. Traceability
         1. F3, F4
      3. Preconditions
         1. The user is in the lobby
      4. Inputs
         1. The user selects “2” from the dropdown for number of players
         2. The user clicks the create button
      5. Expected results
         1. A new room is added to the room list with the option for 2 users to join
         2. The user is automatically added into the room they have created
      6. Actual results and test result

#### Join Game room

* + - 1. Objective
         1. A user joins an existing game room
      2. Traceability
         1. F4
      3. Preconditions
         1. The user is in the lobby
         2. There is a room that has spaces for 2 users and already has a user
      4. Inputs
         1. The user clicks the join button next to the room
      5. Expected results
         1. The user joins room one and the game starts
      6. Actual results and test result

#### Quit game - Lobby

* + - 1. Objective
         1. The user quits a game that have joined and exits to the lobby
      2. Traceability
         1. F5
      3. Preconditions
         1. The user is in a game
      4. Inputs
         1. The user hits the exit to lobby button
      5. Expected results
         1. The user exits to the lobby
      6. Actual results and test result

#### Real time game state

* + - 1. Objective
         1. Users can see what other users are doing in real time
      2. Traceability
         1. F6
      3. Preconditions
         1. User A and User B are in a game
      4. Inputs
         1. User A plays a card that User B can see the effects of
      5. Expected results
         1. User B sees the effect of the card that User A has played in real time
      6. Actual results and test result

#### Turn Notification

* + - 1. Objective
         1. User is notified when it is their turn
      2. Traceability
         1. F8
      3. Preconditions
         1. User A is in an active game with one other user, User B, and it is not User A’s turn
      4. Inputs
         1. User B clicks the end turn button
      5. Expected results
         1. User A gets a message displayed on their screen that it is now their turn
      6. Actual results and test result

#### Draw Card

* + - 1. Objective
         1. User draws a card during the draw phase
      2. Traceability
         1. F9
      3. Preconditions
         1. The user is in the play phase of their turn
      4. Inputs
         1. The user ends the play phase of their turn
      5. Expected results
         1. The player enters the draw phase
         2. The player draws one card
      6. Actual results and test result

#### Play Cards

* + - 1. Objective
         1. Player is able to play several cards during the play phase of their turn
      2. Traceability
         1. F10
      3. Preconditions
         1. It is the play phase of a user’s turn
         2. They have 3 to 5 valid cards to play
      4. Inputs
         1. The user plays all of the valid cards in any order that is valid
      5. Expected results
         1. The cards are all played and perform the correct actions
      6. Actual results and test result

#### Can see the future

* + - 1. Objective
         1. Users cannot see the contents of the deck except when playing a See-the-future card
      2. Traceability
         1. F10, F11
      3. Preconditions
         1. The user has a See-the-future card and it is their turn
      4. Inputs
         1. The user plays the See-the-future card
         2. The user closes the modal after some time
      5. Expected results
         1. The user must not see any of the cards in the deck before the card is played
         2. The user can see the top few cards of the deck immediately after the card is played
         3. The user can no longer see the contents of the deck once they close the modal
      6. Actual results and test result

#### Event Warnings

* + - 1. Objective
         1. The user gets feedback messages
      2. Traceability
         1. F12
      3. Preconditions
      4. Inputs
      5. Expected results
      6. Actual results and test result

#### User Explodes

* + - 1. Objective
         1. The user cannot keep playing after they explode
      2. Traceability
         1. F12,F13
      3. Preconditions
         1. There are three alive players in the game
         2. The user has drawn a detonation card
         3. The user does not play a defuse card
      4. Inputs
         1. The user ends their turn
      5. Expected results
         1. The user explodes
         2. The user is notified they are out of the game
         3. The user is no longer in the turn rotation
         4. The user can still watch the others play the game until it ends
      6. Actual results and test result
    1. Player Turn
       1. Objective
          1. The user can complete a full turn
       2. Traceability
          1. F6, F8, F9, F10, F11, F12
       3. Preconditions
          1. It is about to be User A’s turn after User B completes their turn
       4. Inputs
          1. User B ends their turn
       5. Expected results
          1. User A gets notified it is their turn
          2. They are able to play and number of valid cards
          3. They are able to draw a card
          4. They are able to end their turn
          5. User B can see those cards which have visible effects in real time
       6. Actual results and test result