Evaluation Guide: Atishay and Neel (aps4228 and nus4904)

GAME TITLE: Ludo, But Better

Favourite Model Tests

1. Complete Test: This test runs the whole gamut. On Line 958, the model is initialized with 3 players. This takes care of testing that the game can be initialized with a number of players other than 4, the most common ludo combination. On 960, it ensures that the token doesn't leave the yard unless a 6 is rolled. On line 968, the test performs a collision between a blue and a green token that should send the green token back to the yard. Line 969 makes sure that this actually happens. By line 973, all of the blue tokens (4) have been forcibly brought out of the yard and onto the path. Line 975 to 979 race all four tokens around the board and to the finishing square, in order to ensure that blue wins—this should change the game status to false, as a winner has been declared and the game mustn't go on. Line 980 makes sure of that.

2. Model Construction Test: The meat of the program is in the model. This test initializes a model with 4 players, checking that essential parts of it such as the game status, the number of players and the turn have been initialized correctly (checked on lines 986, 987 and 988).

3. Movement Test: A significant part of each token is that it has a squares_moved and a square_number. These are important to check how far the token has gotten on the board, and whether or not it has reached the victory path (each token has to traverse a certain number of squares from their yard to reach the victory path). This test checks the squares_moved attribute of test tokens after moving them with different values. The checks occur on lines 999, 1000, 1004, 1005. Additionally, this test checks that tokens are removed from their former squares after having been moved, on line 1002.

4. Check Token Initialization: Tokens are initialized based on the number of players playing a particular game. This functions checks that the tokens have been correctly placed in the vector of tokens that the model stores. This checking happens on 1012, 1013, 1014, 1015, 1017 and 1018.

5. Square Functioning: Every square on the board has a color. A square can be either red, green, blue, yellow or uncolored. Each square also holds tokens, and should be able to tell how many tokens are on the square by checking its size and whether it is empty. These tests are performed on lines 1025, 1027 and 1029 respectively.

Functional Requirements

1. Dice rolls to give a random number between 1 and 6 when the space bar is clicked.

HOW TO CHECK THIS: Play Testing

2. Each token has to move 44 spaces in order to reach their finishing square.

HOW TO CHECK THIS: Play Testing, In Test 1.

3. Different colours start 10 spaces apart.

HOW TO CHECK THIS: Play Testing

4. When one token lands on the same square as a token of another colour, the latter is 'eaten', and is returned to the yard of its colour.

HOW TO CHECK THIS: Play Testing, In Test 1.

5. Tokens cannot be 'eaten' in their home stretch, but can be eaten on a starting square of any colour.

HOW TO CHECK THIS: Play Testing

6. If multiple tokens of a player are out of the yard, the player should be able to choose which token to move by clicking on the token, and anywhere on the screen that is not a box containing a token of that color to move a token out of the yard.

HOW TO CHECK THIS: Play Testing

7. A player who rolls a six does not get another turn.

HOW TO CHECK THIS: Play Testing

8. Game provides options for playing a 2-player, 3-player or 4-player game and sets the board up accordingly.

HOW TO CHECK THIS: Play Testing (you can also see this in the various tests, which are initialized with different numbers of players.)

9. UI: The four yards are in the four corners of the screen and the playable space is in the center of the board.

HOW TO CHECK THIS: Play Testing

10. The game quits once a player has won.

HOW TO CHECK THIS: Play Testing, In Test 1.

11. Tokens can only leave the yard when a player rolls a six.

HOW TO CHECK THIS: Play Testing, In Test 1.

12. If a player has a token in the yard and on the board and they roll a six,they should be able to pick between moving the token out of the yard or moving the one that is already on the board forward.

HOW TO CHECK THIS: Play Testing

13. Tokens should not be able to enter the home stretch of another colour.

HOW TO CHECK THIS: Play Testing

14. Tokens should not be able to move 'beyond the board', meaning that they should not be able to cross the final square in their home stretch.

HOW TO CHECK THIS: Play Testing

15. A player who is unable to move loses a turn.

HOW TO CHECK THIS: Play Testing