

Use Cases:

Start game(choose board style)

Undo move

Game won

Game draw

Choose square already taken

Use Case: Start Game

Steps	User's Actions	System's Response
1		System starts and asks user to choose board style
2	User selects option 1 board style	
3		System loads selected board style and prompts player 1 to make selection
4	Users start the game and make selections	

Variation #1:

1.1: Start at step 1

1.2: User selects option 2 board style

1.3: Continue at step 3

Use Case: Undo a selection

Steps	User's Actions	System's Response
1	User selects the undo button after making a selection and before other player makes their selection	
		System checks if the user has clicked undo more than 3 times. Check returns false.
2		System removes user selection and locks the undo button so user can't select undo again.
3		System prompts player to make a selection
4	User selects a new square and the game continues	

Variation #1:

- 1.1: Start at step 2
- 1.2: Check returns true
- 1.3: System tells player they cannot undo more than 3 times and prompts other player to make their selection
- 1.4: Continue at step 4

Variation #2:

- 2.1: Start at step 2.
- 2.2: User tries to select the undo button once more to try to go back two moves
- 2.3: System returns message informing user they cannot undo again and to make their selection.
- 2.4: Continue at step 4

Use Case: Game Won

Steps	User's Actions	System's Response
1	User selects an available square	
2		System checks if selection makes the board in winning state
3		Check returns true and the system disables all squares and announces the winner

Variation #1:

- 1.1: Start at step 2
- 1.2: Winning state check returns false
- 1.3: System prompts next player to select a square and game continues

Variation #2:

- 2.1: Start at step 1
- 2.2: User selects a taken square
- 2.3: See **Use Case: Select a taken square**
- 2.4: Continue at step 1

Use Case: Game Draw

Steps	User's Actions	System's Response
1	User selects an available square	

2		System checks if board is in winning state
3		Check returns false. System then checks if there are any available squares left
4		Check returns false. Since there is no winning state and no squares left, system declares a draw.

Variation #1:

1.1: Start at step 1

1.2: User selects a taken square

1.3: See **Use Case: Select a taken square**

1.4: Continue at step 1

Use Case: Select a taken square

Steps	User's Actions	System's Response
1	User tries to select a square already taken	
2		System checks if the selected square is available.
3		Check returns false and system prompts user to select an available square
4	User selects available square and game continues	