

## **Use Case: View Statistics**

Enable player to see statistics, best times and achievements.

Actor Player

## Precondition

The player has launched the Kamisado game and chose "View Statistics" from menu.

### **Main Flow**

- 1. Choose "View Statistics from main menu"
- 2. Browse statistics.
- 3. Go back to main menu.

**Post-Conditions** 

Player returned to main menu.

# Use Case: Play Kamisado

Enable player to start a new game of Kamisado.

**Actor** Player, Player 2 (optional)

### **Precondition**

The player has launched the Kamisado game and chose "Play Kamisado" from main.

### **Main Flow**

- 1. Choose between one or two player mode or resume previously started one player game.
  - 1.1 If the game was resumed go to 4 with preloaded settings and game state.
  - 1.2 Enter player nickname(s).
- 2. Choose game mode (SPEED or normal).
- 3. Choose how many rounds the game lasts.
- 4. Start game.

### **Alternative Flow**

- At 4, if one player mode was selected, the choice of difficulty appears.
  - 1 Choose between easy and hard level against AI.
  - 2 Start game.

**Post-Conditions** Game started.

### **Use Case: One player**

Enable player to play Kamisado in a single player mode.

Actor Player, AI

### **Precondition**

Kamisado game started.

#### **Main Flow**

- 1. Player choses whether they want white or black towers.
- 2. Player with white towers makes a move.
  - 2.1 If end game conditions are met go to 4.
- 3. Player with black towers makes a move.
  - 3.1 If end game conditions are met go to 4.
  - 3.2 Go to 2.
- 4. Display message with winning player's name.
- 5. Add game result and time to statistics.
- 6. Ask human if they want a rematch.
  - 6.1If yes go to 1.
- 7. Show main menu frame.

### **Alternative Flow**

- At 1, If previously started game was loaded player who's turn was starts.
- At 2 and 3, When in SPEED mode and player doesn't make a move within 5 seconds the opposite player wins. Go to 4. If player surrenders before end game conditions are met go to 4.
- If player undoes his move go back to game state before AI move.

**Post-Conditions** Main menu frame.

# Use case: Two player

Enable player to play Kamisado in a two player mode.

Player, Player 2.

Actor:

### **Precondition**

Kamisado game started.

### **Main Flow**

- 1. Player choses whether they want white or black towers.
- 2. Player with white towers makes a move.
  - 2.1 If end game conditions are met go to 4.
- 3. Player with black towers makes a move.
  - 3.1 If end game conditions are met go to 4.
  - 3.2 Go to 2.
- 4. Display message with winning player's name.
- 5. Add game result and time to statistics.
- 6. Ask both players if they want a rematch.
  - 6.1 If both players agree go to 1.
- 7. Show main menu frame.

#### **Alternative Flow**

- At 2 and 3, When in SPEED mode and player doesn't make a move within 5 seconds the opposite player wins. Go to 4.
- If any player surrenders before end game conditions are met go to 4.

**Post -Conditions** Main menu frame.

#### **Features:**

- 1. Draw GUI
- 2. Keyboard input
- 3. Mouse input
- 4. Display the current state and score of the game
- 5. Display game records and statistics
- 6. Keep track of game state
- 7. Save single player game state to disk
- 8. Restore game state from saved game
- 9. Validate player moves as legal or illegal
- 10. Surrender option
- 11. Restart game option (single player only)
- 12. Detect game-end conditions
- 13. AI algorithms
- 14. Choice between AI difficulty (easy and hard)
- 15. Timer to limit AI move time
- 16. Timer to limit player move time
- 17. Choice to use or not the player move timer
- 18. Return to any previous game state against AI (unlimited undo)
- 19. Save game statistics
- 20. Own nickname entry
- 21. Network protocol for online play against other players
- 22. Choice between displaying one or two boards during two player offline mode
- 23. Show move hints in single player mode
- 24. Highlight valid moves

	1	2	3	4	5	6	7	8	9	10	11	12
View Statistics	•	•	•		•							
Play Kamisado	•	•	•									
One Player	•	•	•	•		•	•	•	•	•	•	•
Two Player	•	•	•	•		•			•	•		•

	13	14	15	16	17	18	19	20	21	22	23	24
View Statistics												
Play Kamisado		•			•			•		•		
One Player	•		•	•		•	•				•	•
Two Player				•			•		•			•