**COUP LIE DETECTOR SYSTEM USE-CASES**

The lie detector is based on the game *Coup*. Players can set up game scenarios and analyze the different lying probabilities for all the players in the different game sessions.

**Risk factors.**

1. The system has to be easy for non-technical people to use
2. Program is more suited as a mobile application
3. Ability to handle simultaneous users in different parts of the country is unknown.

**System Level Use Cases**

1. Setting up a game use case
2. Review statistics for a game

**Subsystems**

**System Access Subsystem**

This subsystem handles log in and log out, and checks for access permissions.

**Game Setup Subsystem**

This subsystem handles registration of new players and adding actions to the current game.

**Review Game Statistics Subsystem**

It interfaces with the database and provides statistics on lying percentages for the player’s game history.

**Database Subsystem**

This subsystem contains the data we need to store for the program. It provides standard store, retrieve, update, and delete functions for the data that is stored.

1. **Use Case:** Log in

**Actors:** Player

**Overview:** The player logs in into the coup lie detector. It also sets up access permissions for various categories of users.

**Flow of Events**

1. The Use Case begins when the user starts the program
2. The system will display the login screen
3. The user enters a username and a password
4. The system will verify the information
5. The system will display the home page.

**Alternative courses**

Step 3. The player enters a wrong username or password.

1. System displays an error message
2. Go back to step 3.
3. **Use Case:** Registration

**Actors:** Player

**Overview:** This use case describes the process by which the player registers an account in order to access the system.

**Flow of Events**

1. The Use Case begins when the user starts the program
2. The system will display the login screen
3. The user clicks Register
4. The system displays the registration page
5. The user creates and enters a username and a password
6. The user confirms the password
7. The user selects submit.

**Alternative courses**

Step 12. The player selects reset.

1. System deletes the entries and prompts for new entries for the password and username
2. Go back to step 10.
3. **Use Case Start game**

**Actors:** Player

**Overview:** This use case describes the process by which a game is set up by the player.

**“Used” Use Cases**

1. Log in

**Flow of Events**

1. The use case begins when the player selects Start Game.
2. The system displays the Game Setup Screen
3. If the user selects Add New Player

2.0 Use Registration Use Case

1. Else the user selects a maximum of five players
2. The player selects two character cards
3. The user clicks Start Game
4. The system displays the Game Play Screen.
5. **Use Case:** Add Income

**Actors:** Player

**Overview:** This use case describes the process by which the player can add Income for a particular player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Income as the action
6. The user clicks Add
7. The system displays the Game Play screen with a new entry: [insert player’s username]: Income.
8. **Use Case:** Add Foreign Aid

**Actors:** Player

**Overview:** This use case describes the process by which the player can add foreign aid for a particular player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Foreign Aid as the action
6. The system prompts for a response on whether there was a block.
7. If the user selects Yes

6.0 Use Block Foreign Aid

1. Else the user selects No
2. The system displays the Game Play screen with a new entry: [insert player’s username]: Block Foreign Aid.
3. **Use Case:** Add Block Foreign Aid

**Actors:** Player

**Overview:** This use case describes the process by which the player add a Block Foreign Aid counteraction by a particular player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Foreign Aid

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a Foreign Aid block from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the block.
4. The user selects counteraction as the action type.
5. The user selects Block Foreign Aid as the action
6. The system prompts for a response on whether there was a challenge on Blocking Foreign Aid
7. If the player selects Yes

7.0 Use Add Challenge Block Foreign Aid

1. Else the user selects No
2. The system displays the Game Play screen with a new entry: [insert player that staged the block username]: Block Foreign Aid.
3. **Use Case:** Add Challenge Block Foreign Aid

**Actors:** User

**Overview:** This use case describes the process by which the user adds a foreign aid block that has been challenged by a particular player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Foreign Aid
4. Block Foreign Aid

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a Foreign Aid block challenge from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects challenge as the action type.
5. The user selects Challenge Block Foreign Aid as the action
6. The system prompts for a response on whether the challenger won.
7. The user selects Yes
8. The system prompts for an entry of the lost card from the player that blocked the foreign aid.
9. The user selects the character card
10. The user clicks submit.
11. The system displays the Game Play screen with two new entries:

[Insert username (for player that blocked foreign aid)]: lost challenge

[Insert challenger’s username (for player that blocked foreign aid)]: lost [insert character card].

**Alternative courses**

Step 7. The user selects no.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user clicks submit
4. The system displays the Game Play Screen with a new entry:

[Insert challenger’s username]: lost the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Tax

**Actors:** User

**Overview:** This use case describes the process by which the player adds tax taken by a player.

**“Used” Use Cases**

1. Start Game.

**Flow of Events**

1. The Use Case begins when the player selects start game on the home page
2. The system will display the Action page.
3. The user selects the username of the player taking tax.
4. The user selects Action as the action type.
5. The user selects Tax as the action
6. The system prompts for a response on whether tax was blocked by an opponent.
7. If user selects yes

9.0 Use Add Challenge Tax

1. Else user selects no.
2. The system displays the Game Play screen with a new entry: [insert username]: tax.
3. **Use Case:** Add Challenge Tax

**Actors:** User

**Overview:** This use case describes the process by which the player adds a tax challenge.

**“Used” Use Cases**

1. Start Game
2. Add Tax

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a tax challenge from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects challenge as the action type.
5. The user selects Challenge Tax as the action
6. The system prompts for a response on whether the challenger won.
7. The user selects Yes
8. The system prompts for an entry of the lost card from the player that took tax.
9. The user selects the character card
10. The user selects submit.
11. The system displays the Game Play screen with two new entries:

[Insert username (for player that took tax)]: lost challenge

[Insert username (for player that took tax)]: lost [insert character card].

**Alternative courses**

Step 7. The user selects no.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user clicks submit
4. The system displays the Game Play Screen with two new entries:

[Insert challenger’s username]: lost the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Assassination

**Actors:** Player

**Overview:** This use case describes the process by which the player can add an assassination.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Assassinate as the action
6. The system prompts for a response on whether there was a challenge or a block.
7. The user selects yes.
8. System displays the Action screen.
9. The user will select the player
10. If the user selects Challenge for the action type.

11.0 Use Challenge Assassination.

1. Else if the user selects Counteraction for the action type

12.0 Use Block Assassination.

1. **Use Case:** Add Challenge Assassination

**Actors:** Player

**Overview:** This use case describes the process by which the player adds an assassination challenge by an opponent.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Assassination.

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was an assassination block or challenge.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects Challenge as the action type.
5. The user selects Challenge Assassination as the action
6. The system prompts for a response on whether the challenger won.
7. The user selects Yes
8. The system prompts for an entry of the lost card from the player that attempted the assassination.
9. The user selects the character card
10. The user clicks submit.
11. The system displays the Game Play screen with two new entries:

[Insert username (for player that attempted an assassination)]: lost challenge

[Insert challenger’s username (for player that attempted an assassination)]: lost [insert character card].

**Alternative flow of events.**

Step 7. The user selects no.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user clicks submit
4. The system displays the Game Play Screen with two new entries:

[Insert challenger’s username]: lost the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Block Assassination

**Actors:** User

**Overview:** This use case describes the process by which the user adds an assassination block.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Assassination

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was an assassination block from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the block.
4. The user selects counteraction as the action type.
5. The user selects Block Assassination as the action
6. The system prompts for a response on whether there was a challenge on an assassination block
7. If the player selects Yes

13.0 Use Add Challenge Block Assassination

1. Else the user selects No
2. The system displays the Game Play screen with a new entry: [insert player that staged the assassination block username]: Block Assassination.
3. **Use Case:** Add Challenge Block Assassination

**Actors:** User

**Overview:** This use case describes the process by which the user adds an assassination block that was challenged by a player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Assassination
4. Add Block Assassination.

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a Assassination block challenge from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects challenge as the action type.
5. The user selects Challenge Block Assassination as the action
6. The system prompts for a response on whether the challenger won.
7. The user selects Yes
8. The system prompts for an entry of the lost card from the player that blocked the assassination.
9. The user selects the character card
10. The user selects submit.
11. The system displays the Game Play screen with two new entries:

[Insert username (for player that blocked an assassination)]: lost challenge

[Insert challenger’s username (for player that blocked an assassination)]: lost [insert character card].

**Alternative courses**

Step 7. The user selects no.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user clicks submit
4. The system displays the Game Play Screen with two new entries entry:

[Insert challenger’s username]: lost the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Card Exchange

**Actors:** Player

**Overview:** This use case describes the process by which the player can add a card exchange.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Exchange as the action
6. The system prompts for a response on whether there was a challenge on exchange.
7. If user selects yes.

15.0 Use Add Challenge Exchange.

1. Else the user selects no.
2. The system displays the Game Play screen with a new entry: [insert player’s username]: exchange.

**Alternative flow of events.**

Step 7. The user selects no.

1. The system prompts for an entry of the new card to exchange.
2. The user selects the character card.
3. The user clicks submit.
4. The system displays the Game Play Screen with a new entry:

[Insert username (Player who attempted the exchange)]: Exchange.

1. **Use Case:** Add Challenge Exchange

**Actors:** Player

**Overview:** This use case describes the process by which the player adds a challenge staged for an exchange of cards from the court deck.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a challenge on exchange.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects Challenge as the action type.
5. The user selects Challenge Exchange as the action
6. The system prompts for a response on whether the challenger won.
7. The user selects Yes
8. The system prompts for an entry of the lost card from the player that attempted the exchange
9. The user selects the character card
10. The user clicks submit.
11. The system displays the Game Play screen with two four new entries:

[Insert username (for player that attempted the exchange)]: Exchange

[Insert challenger’s username]: Challenge Exchange

[Insert username (for player that attempted the exchange)]: wins challenge

[Insert challenger’s username (for player that attempted the exchange)]: lost [insert character card].

**Alternative flow of events.**

Step 7. The user selects no.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user selects one or two cards to exchange for the challenged player.
4. The user clicks submit
5. The system displays the Game Play Screen with three new entries:

[Insert username (Player who attempted the exchange)]: Exchange.

[Insert challenger’s username]: Challenge Exchange.

[Insert challenger’s username]: lost the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Stealing

**Actors:** Player

**Overview:** This use case describes the process by which the player can add a theft from an opponent.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Steal as the action
6. The system prompts for a response on whether there was a block or a challenge
7. The user selects yes.
8. System displays the Action screen.
9. The user will select the player
10. If the user selects Challenge for the action type.

17.0 Use Add Challenge Stealing.

1. Else if the user selects Counteraction for the action type
2. Use Add Block Stealing.

**Alternative Course of Events**

Step 7. The user selects no.

1. The system displays the Game Play Screen with one new entry:

[Insert username]: Steal.

1. **Use Case:** Add Block Stealing

**Actors:** Player

**Overview:** This use case describes the process by which the player add a stealing block counteraction by a particular player or himself.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Stealing

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a stealing block from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the block.
4. The user selects counteraction as the action type.
5. The user selects Block Stealing as the action
6. The system prompts for a response on whether there was a challenge on Block Stealing.
7. If the player selects Yes

18.0 Use Add Challenge Block Stealing.

1. Else the user selects No.
2. The system displays the Game Play screen with two new entries:

[Insert player that attempted stealing]: Steal.

[Insert username (Player that blocked the stealing)]: Blocked Stealing.

1. **Use Case:** Add Challenge Stealing

**Actors:** User

**Overview:** This use case describes the process by which the user adds a stealing attempt that has been challenged.

**“Used” Use Cases**

1. Log in
2. Start Game
3. Add Stealing

**Flow of Events**

1. The Use Case begins when the player selects yes when prompted on whether there was a stealing challenge from an opponent.
2. The system will display the Action page.
3. The user selects the username of the player staging the challenge.
4. The user selects challenge as the action type.
5. The user selects Challenge Stealing as the action
6. The user clicks add.
7. The system prompts for a response on whether the challenger won.
8. The user selects Yes
9. The system prompts for an entry of the lost card from the player that attempted to steal
10. The user selects the character card
11. The user clicks submit.
12. The system displays the Game Play screen with four new entries:

[Insert username (Player who attempted to steal)]: Steal.

[Insert challenger’s username]: Challenge Stealing.

[Insert challenger’s username]: wins the challenge.

[Insert username (player who attempted to steal)]: lost [insert character card].

**Alternative courses**

Step 7. The user selects No.

1. The system prompts for an entry of the lost card from the challenger.
2. The user selects the character card.
3. The user clicks submit
4. The system displays the Game Play Screen with four new entries:

[Insert username (Player who attempted to steal)]: Steal.

[Insert challenger’s username]: Challenge Stealing.

[Insert username (Player who attempted to steal)]: wins the challenge.

[Insert challenger’s username]: lost [insert character card].

1. **Use Case:** Add Coup

**Actors:** Player

**Overview:** This use case describes the process by which a user can add a Coup attempt

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects Add Action
2. The system will display the Action page.
3. The user selects the username of the player taking the action.
4. The user selects Action as the action type.
5. The user selects Coup as the action
6. The user clicks Add
7. The user selects the player that was the target of the coup.
8. The user clicks submit.
9. The system displays the Game Play Screen with one new entry:

[Insert username]: removed from the game.

1. **Use Case:** Review game statistics

**Actors:** Player

**Overview:** This use case describes the process by which a user review his previous games statistics.

**“Used” Use Cases**

1. Log in
2. Start Game

**Flow of Events**

1. The Use Case begins when the player selects review game statistics
2. The system will display the review screen.
3. The system will display the game details for the particular game.
4. If the user wants to return to main menu, the user selects ‘Return to main menu’.