The Fox in The Forest Card Game Application

**Game Concept**

* The Fox in The Forest is a fairytale-themed trick-taking card game for two players that was created back in 2017. The end goal is to reach 21 points, while the goal of each round is to either score as few tricks as possible, or to score a specific number of tricks in the round; going over this number of tricks penalizes the player that goes over.
* There are also certain cards that have special effects that can sway the current round or the next round in favor of the one that plays said card.

**Rules**

* The game starts with a total of 33 cards, comprised of 3 suits, each of which contain 11 cards. Each player receives 13 cards to start a round with. Between the two players, one more card is drawn from the remaining deck, and is placed between the players. This card is called the decree card, and the suit of this card functions as the trump suit. A coin flip determines who will go first, and that player places a card next to the decree card. The other player then must follow suit (play a card of the same suit) if possible, and the winner of that hand is determined. The couple of cards that were played are taken by the winner, and this pair of cards is known as a “trick”. The winner of the trick then leads the next trick. Play proceeds until neither player has any cards left (note: players do NOT draw a card once they’ve played a card.).
* At this point, the number of tricks won is counted (the number of tricks being half of the number of cards they’ve obtained), and each player gains points based on how many tricks they won. If a player received less than 4 tricks, they receive 6 points. If they won 4, 5, or 6 tricks, they will receive either 1, 2, or 3 points, respectively. If they won 7 to 9 tricks, they receive 6 points. If they won any more tricks past 9 tricks, they receive 0 points. At the end of a round, if a player has at least 21 points, the game ends, and the player with the most points wins the game; otherwise, all cards are put back into the deck, and dealt out again in the same fashion as when the game began. This repeats until either one player or both players meet the 21-point requirement.

Even-numbered cards function as standard cards; however, odd-numbered cards have special effects that can alter the course of the game to a player’s benefit. The effects are as follows:

* 1: If the player that plays this card loses the trick that this card is played in, that player will lead in the next trick.
* 3: The player that plays this card has the option of choosing a card from their hand and swapping it with the decree card. This must be done IMMEDIATELY after the 3 card is played.
* 5: The player that plays this card must draw a card from the deck. They then must discard one card from their hand, and place it at the bottom of the deck. The card they choose can be the card that they just drew from the deck.
* 7: Whoever wins a trick that has at least one “7” card in play will immediately receive a point for each “7” card in play.
* 9: If the other player did not play a “9” card, the player that DID play a “9” card will have their “9” card be treated as if it was a card of the trump suit. If both players play a “9” card, the winner is determined in the same manner as if both players played an even-numbered card.
* 11: If the player that played this card is leading the trick, and if the player opposite them has any cards that are of the same suit, the player opposite the “11” card must play either a “1” card of the same suit, or their highest-valued card of the same suit.

**Technical Requirements**

To effectively run, the client computer should:

* Be running on Windows OS
* Have at least 0.5 GB of RAM and CPU
* Have at least a computer mouse and other standard computer peripherals.

**Purpose**

* The purpose of the Fox in the Forest application is to provide an entertaining, yet slightly challenging experience to the user by replicating The Fox in the Forest and removing any chances of the player having an experience where rules are broken.

**Availability**

* This application will be available to any for free download in a Github repository.

**Security Requirements**

* The only remotely sensitive information maintained by the application are names, so there is no need for any sort of extra security.

**Visual Requirements**

* The application must show the player what cards they currently have to work with, what card is currently the decree card, how many cards the opponent has (without revealing what the actual cards are), how many tricks the player currently has, and what their current score is.
* The application must also show prompts for when an important change has occurred. Examples of this include when the game ends, and warning the player that the game is going to be restarted due to their input.

**General Requirements**

* The card effects listed in the rules all function exactly as they would in the actual card game.
* The application should provide access to instructions on how to play the game beyond this document.
* The application should allow the user to create a profile, which will keep track of various elements to their history with the application. Examples of these elements are: how many games the user has won, how many games the user has lost, and how many points they’ve accrued over all their games.

**Program Flow**

* The user boots up the application. They are given the initial option to sign into a profile, start a game without signing in, or viewing the game’s rules. After the user has decided whether they will sign in to a profile or not, the game starts, with the user being dealt a hand of 13 cards, and being told to call the results of a coin flip to see if they’ll lead the trick.
* After this, either the computer will take their turn, or the player will, followed by the lead’s opposite. The winner of the trick is determined, and then one of the two sides takes their turn again, depending on the winner of the trick. This repeats until neither side has any cards left.
* Points are divvied out based on tricks won in the round, and if neither player has 21 points, the round starts again. This repeats until the player and/or the computer has 21 points, at which point the player is told whether they won or lost the game. If the player signed into or created a profile, the profile’s stats are updated at this point which reflect how they performed in that game. The player can repeat this ad nauseum.