Solitaire

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Brief explanation of solitaire:

Solitaire is a game that can by played by a single player, requiring just a standard deck of 52 cards. The objective of the game is to organise a shuffled deck of cards into four separate piles, with each pile representing a suite and organised in ascending order (Ace to King).

Set-Up

In the game, there are four different piles - the tableau, the stock, the waste and the foundations.

Tableau

The tableau contains seven piles, with the first pile containing one card, the second pile with two cards etc until seven piles are created. Only the top card of each pile is face up. The remaining cards are placed faced down and called **The Stock**.

The waste and foundation

The waste is a space where three cards from the stock will be placed face up as the game proceeds further.

The foundation contains four piles, one of each suit going in ascending order. A completed stack from the tableau will be placed in the foundation.

The Play

The player can move cards from one pile to another on the tableau as long as the card being moved is in descending order and of the same suit, such as a 9 of Spades from one pile being placed on a 10 of Spades from another pile. This will uncover one of the face down cards placed during game creation.

As the game state moves forward, ace cards will be uncovered, which can instantly be placed to the foundation. The player can continue to transfer cards in ascending order, with the goal being to fill up every foundation in ascending order and with each foundation representing a suit.

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1. UML Class Diagram

Solitaire

cardNumber: int cardSuit : char

getNumber();
getSuit();
getColor();

- <<Interface>>
- +Solitaire
- +moveCol()
- +compareCol()
- +compareFound()
- +moveCardtoCol()
- +moveCardtoFound()
- +cycleWaste()

Flowchart

