

SOLITAIRE

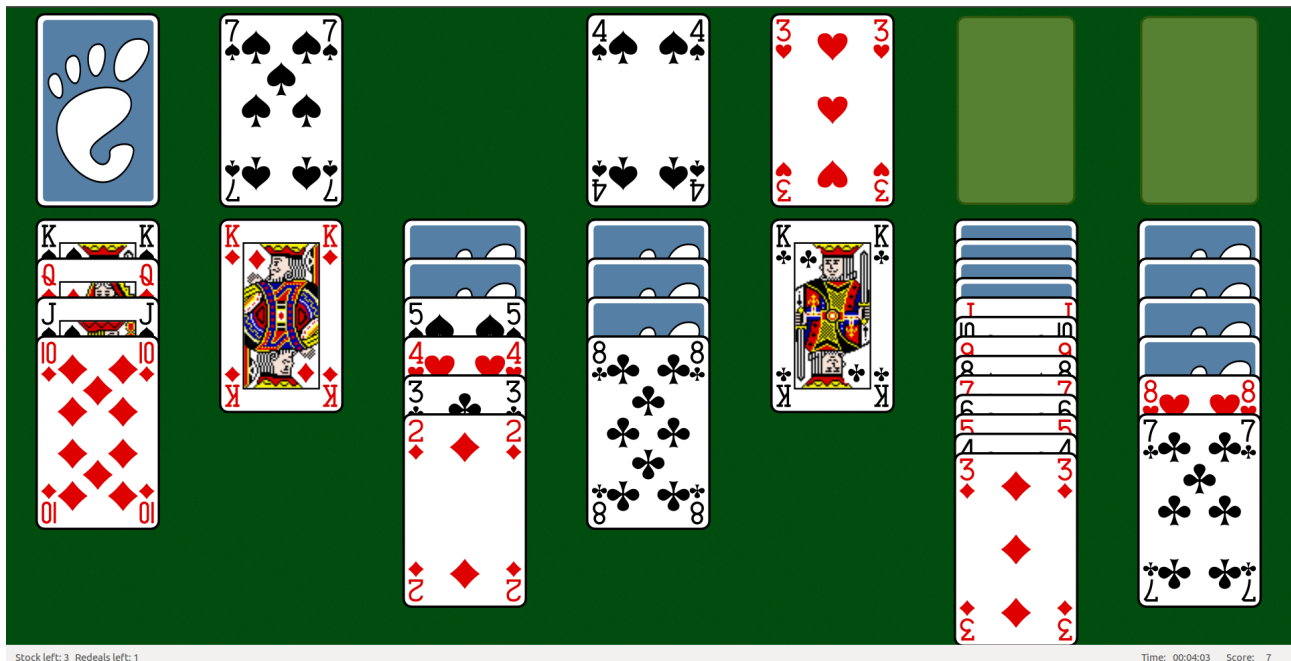
Solitaire online game by Michael Bausano.



GitHub

How does Klondike work

Klondike is the most known of all solitaire card games. The goal is to sort all cards of same suit on top right piles in ascending order. There are seven piles with total of 28 cards in the beginning and a deck with 24 cards.



Authorization

There is Login link in the navigation menu. If the user is logged in, it redirects to user information page, where a user can logout or change his password. A guest gets redirected to login & register page (see wireframe *wf_auth*).

Scoreboard

Upon clicking the Highscore link in the menu, a simple table sorted by number of points is print. If a current user has a score in **TOP 10**, the line is highlighted (see wireframe *wf_highscore*). Score is based on time that passes since the beginning of the game and number of moves a player did.

Game

There are 13 piles I call **registers**. All registers extend *stack data type* class and are indexed (see wireframe *wf_game*). Player has an option to *start a new game* with fresh deck of cards (reshuffled) or *reset* the current deck to its starting position.

Starting position

When the game starts, there is 24 cards in **D[0]** register. **F** and **D[1]** registers are empty. On each of **P[0 - 6]** registers, there is a $x+1$ cards and only the top one is revealed.

Available player actions:

- **D[0] → D[1]**
- **D[1] → P[x]**
- **P[x] ↔ F[x]**

Player's goal is to move the cards around the registers so that he manages to reveal all cards on the table. The game ends when all 52 cards are in **F** registers.

Timer

There is a timer running in the background for the first 10 minutes of game (that is the time limit for a player to even score some points). The timer triggers each second decreasing the players score by one and printing it out.

Move validation

There are two main validation methods when moving the cards:

canBePutOn

Serves to move cards on and around the **P** registers. Method checks if the value of top last card from to register is one higher than first card in from array and if colour differs.

canBeFlushed

Serves to move cards on **F** registers. Both cards has to share colour and the moved card has to have value one higher.

Extras

There is a *comment section* on the highscore page where registered users can add comments. In the game you can ask for a *hint* by clicking Hint button. This will trigger an AJAX request on PHP script that is going to try giving you an advice.

For higher page usability a *confirmation box* is implemented on New game and Restart game buttons.

A *help page* includes the rules of Klondike and some brief history of Solitaire (see wireframe *wf_help*).

New game

Reset game

Highscore

Help

Login

D₀

D₁

F₀

F₁

F₂

F₃

P₀

P₁

P₂

P₃

P₄

P₅

P₆

Score: 257

Rereads left: 2

Hint

This is a university project for course **CSD 2550**. Code and project description are available at github.com/bausano/solitaire.

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wf_game

wf_auth

Solitaire

Highscore

Help

Login

Login

Your E-mail ...

Your Password ...

Login

[Forgot your password?](#)

Register

Your E-mail ...

Your Name ...

Your Password ...

Repeat Your Password ...

Register

You have to enter a valid e-mail.

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Solitaire

Highscore

Help

Welcome, Alan

Highscores table

1.	Jamine	389
2.	Ian	305
3.	Alan	275
4.	Therese	265
5.	Carl	219
6.	Ian	196
7.	Alan	105

Enter your message ...

Tags ...

Comment

Comments

Jamine

score

game

I hit the highscore today, yaay! ^^

Massa integer massa, elit pulvinar amet aliquam. Integer pellentesque! Adipiscing ac vel, scelerisque, nunc lectus adipiscing! Ultricies dictumst, hac ultrices!

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wf_highscore

wf_help

Solitaire

Highscore

Help

Welcome, Alan

Rules

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

History of Klondike

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

How to win

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

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