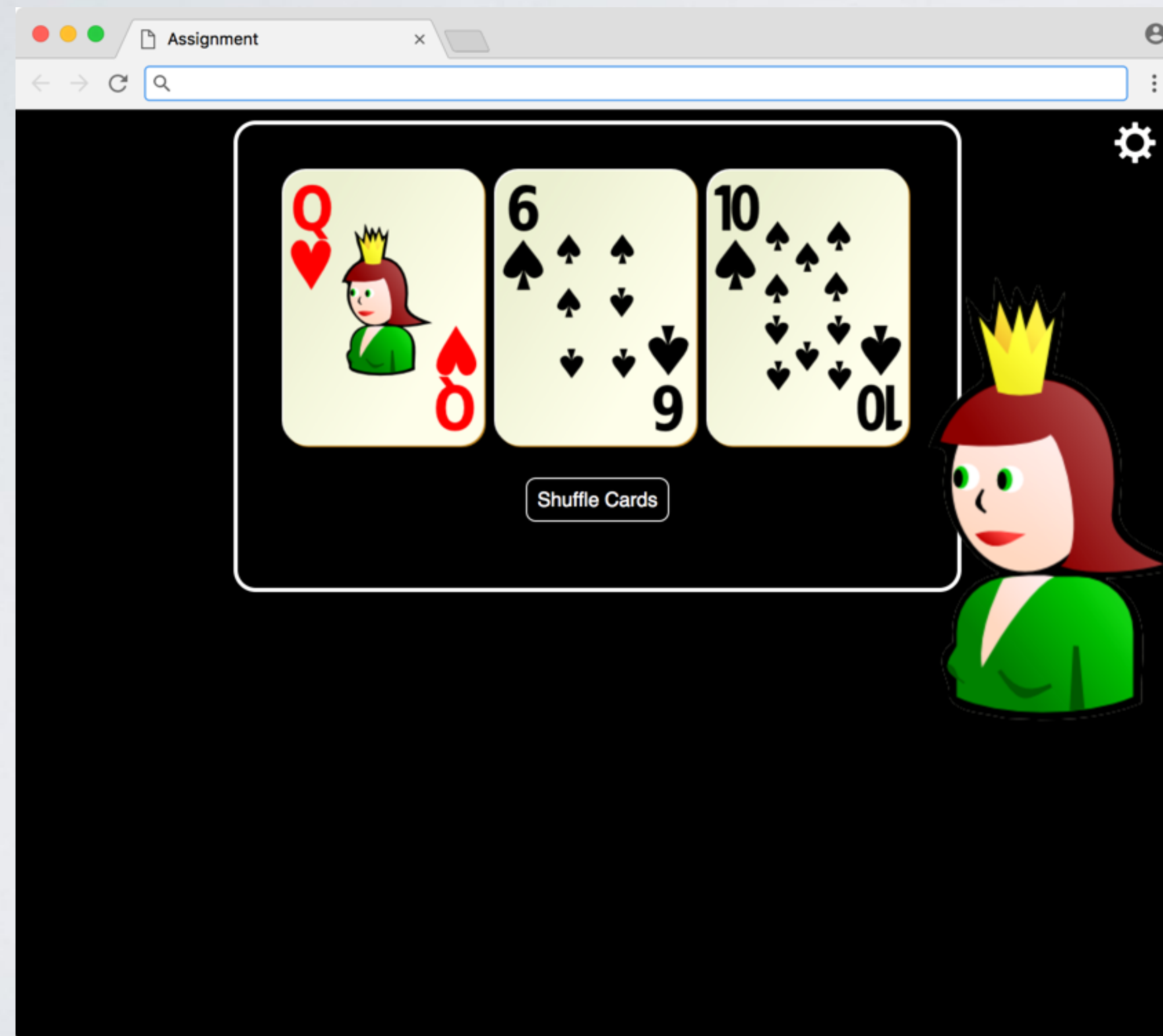


# CLIENT-SIDE WEB DEVELOPMENT

**Assignment 2 - Part 2** - Find the Queen (JavaScript Interface)

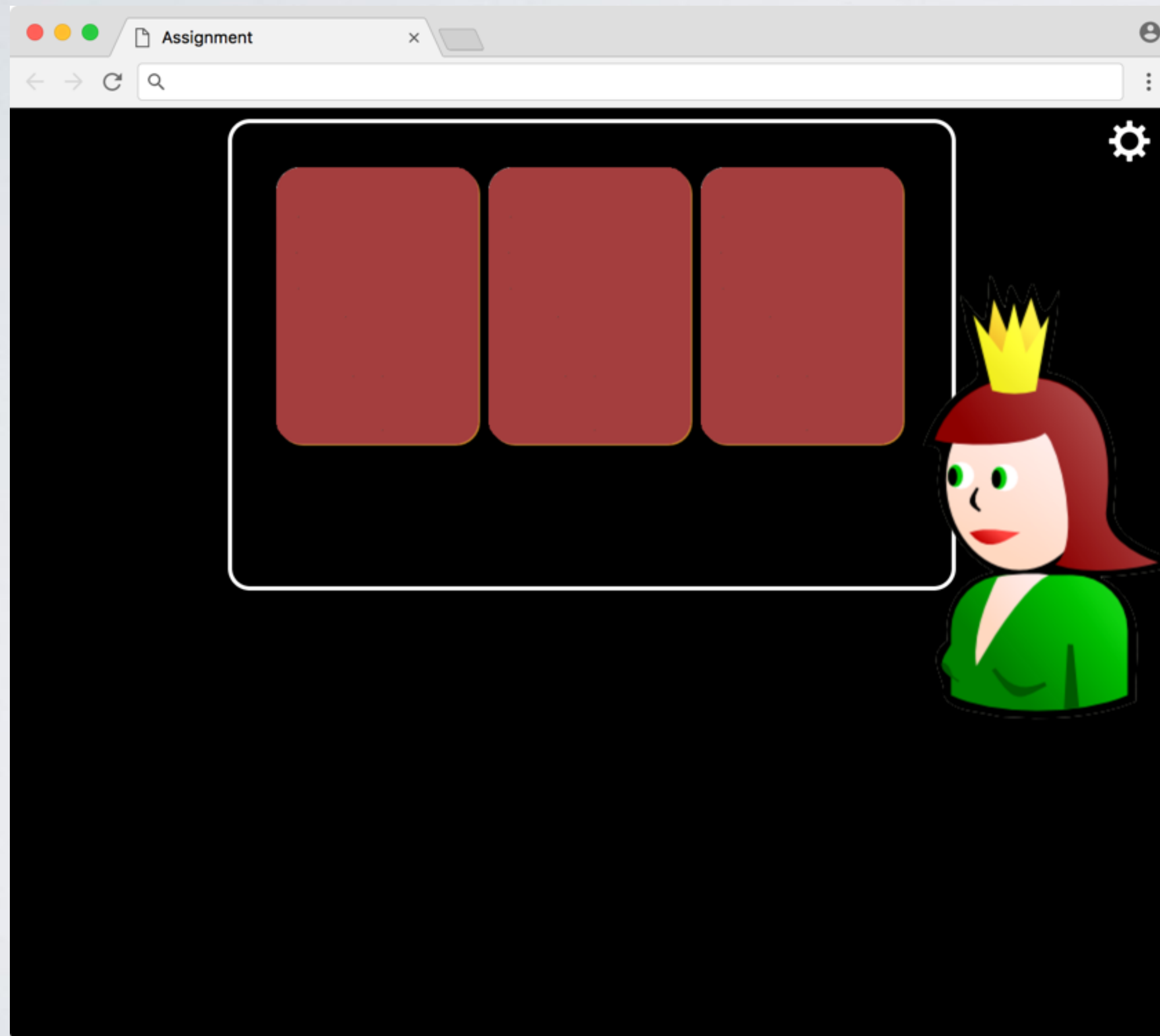
2017

# Game



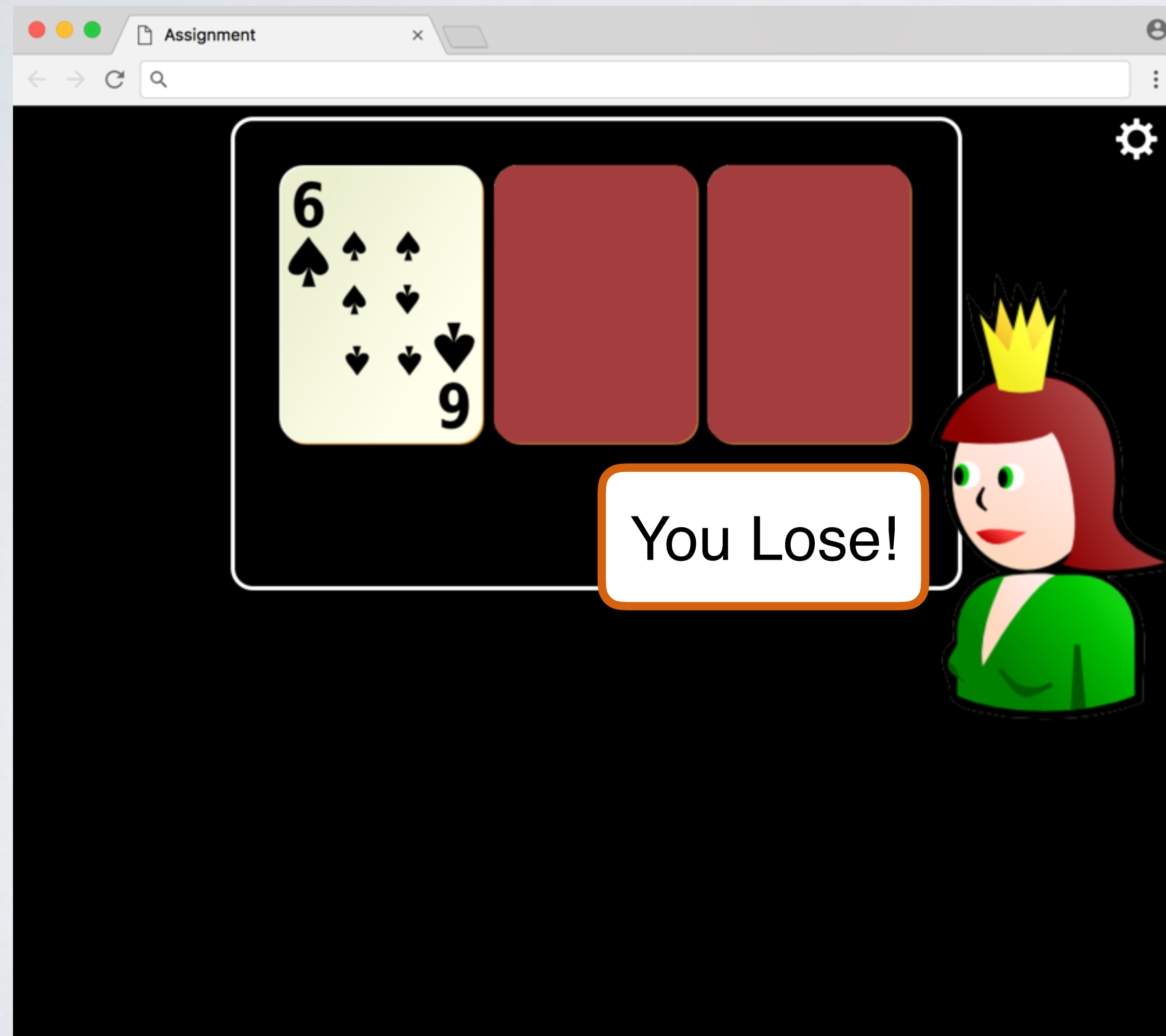
You must implement a simple "Find the Queen" game in HTML/CSS/JavaScript.

The main interface consists of 3 cards and a "Shuffle Cards" button.



Clicking on the button will hide the card faces by replacing them with an image of a card back.

It will also hide the button so the user can't press it again until appropriate.

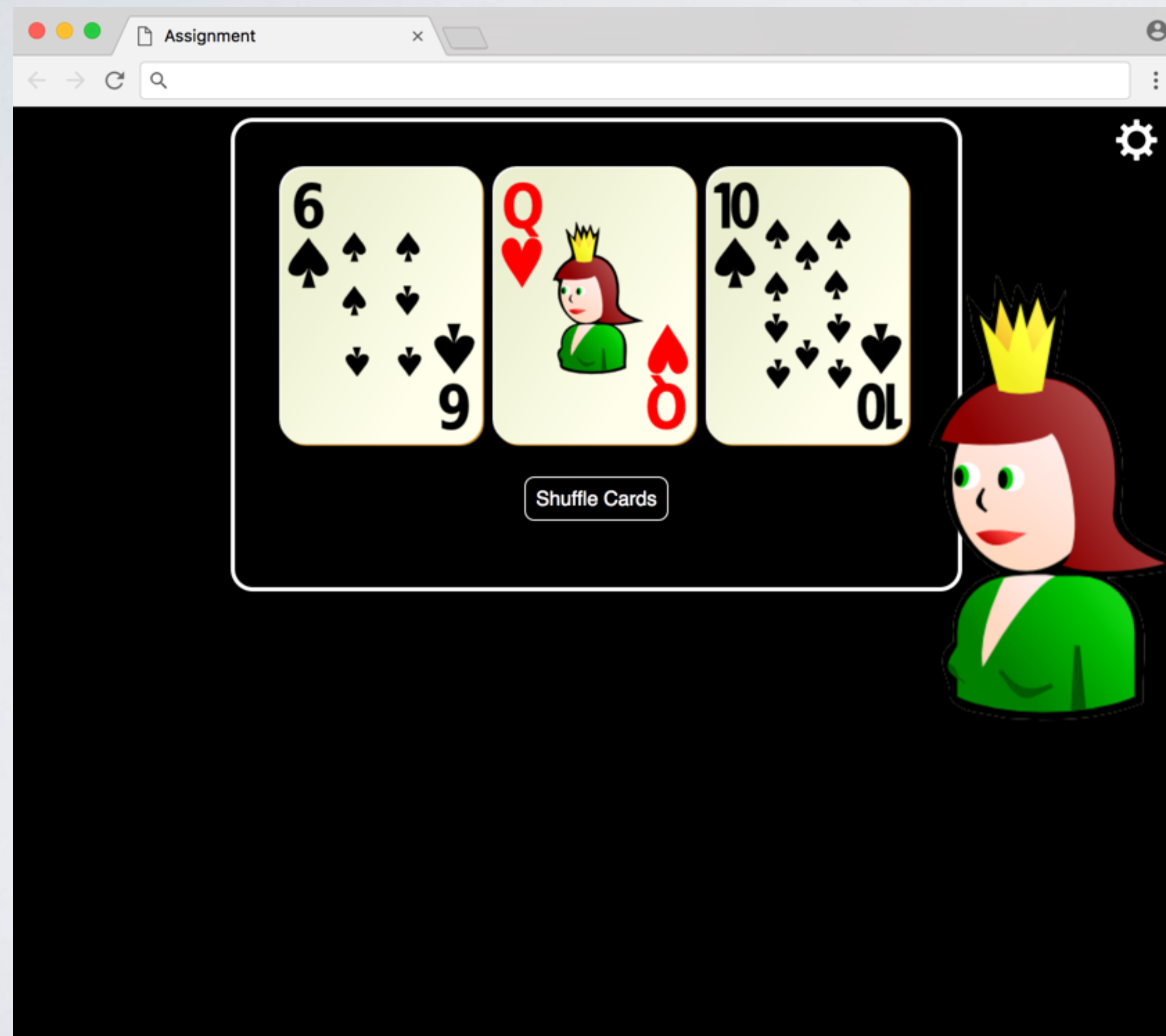


Clicking on a card back will reveal the appropriate card.

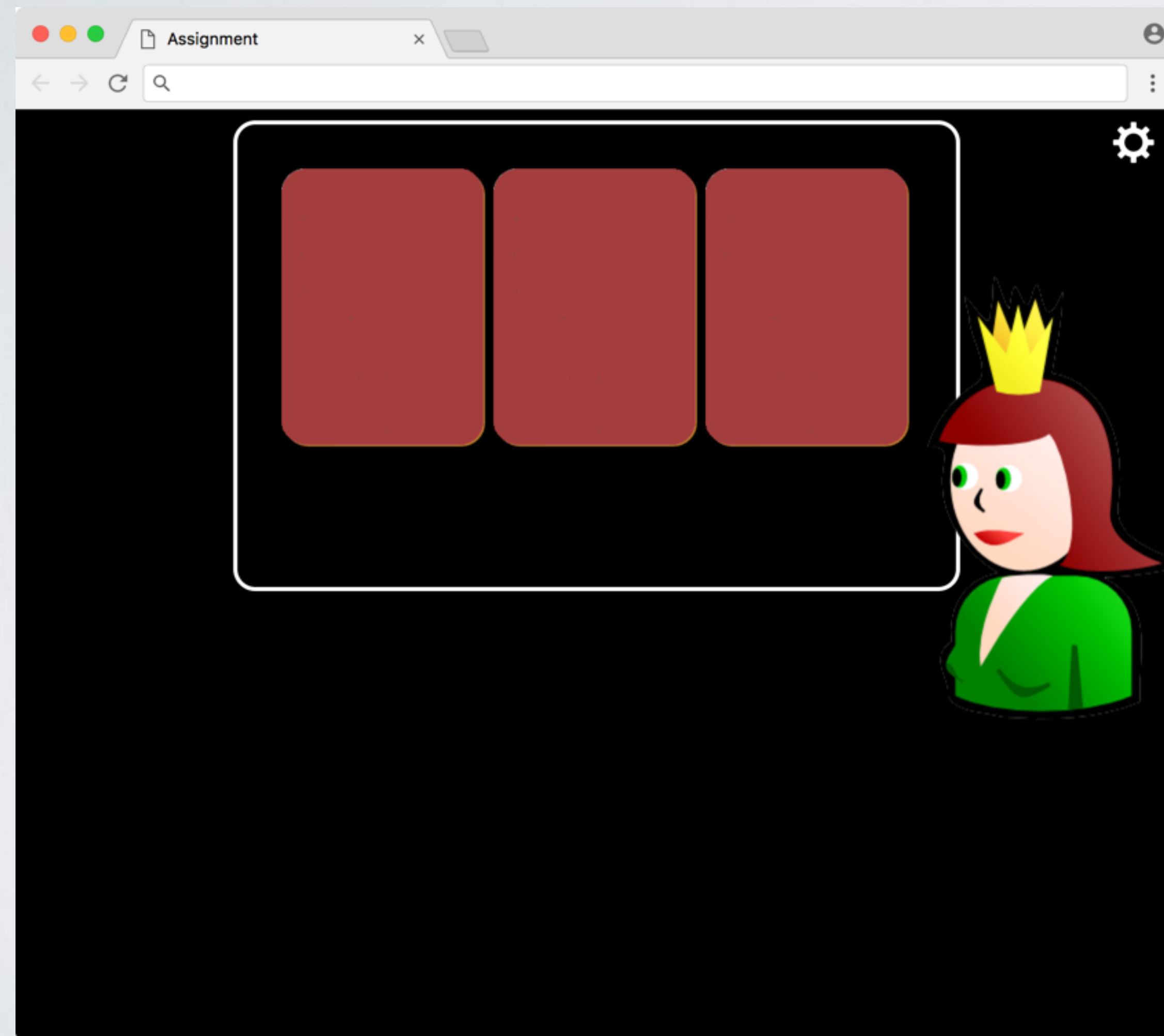
A message will appear telling you if you won or lost. I.e. is the card you revealed the Queen.

**Note:** Messages appear and then automatically disappear after a short time. (see screencast for details).

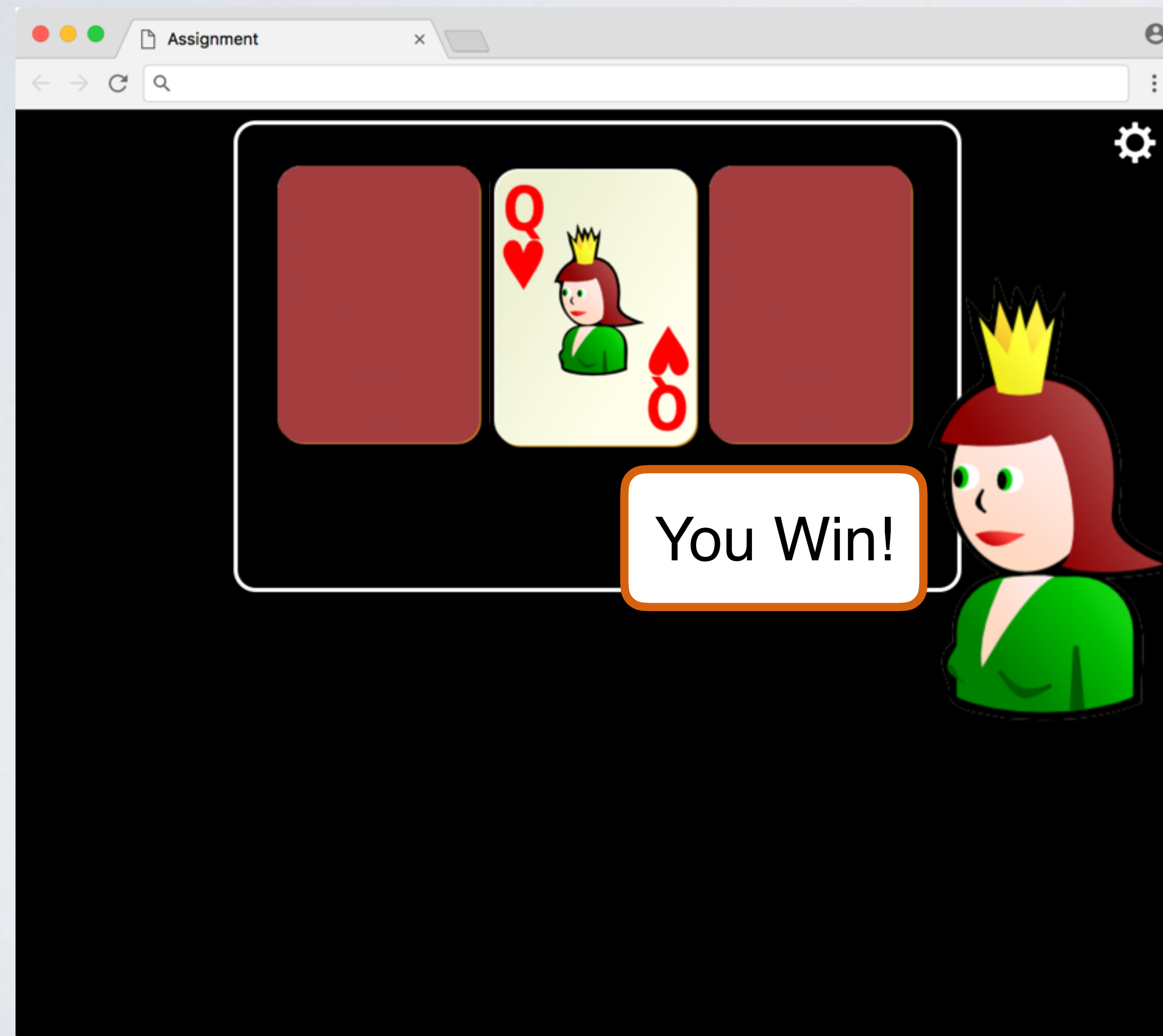




After a short delay the remaining cards will automatically be revealed and the "Shuffle Cards" button will reappear.

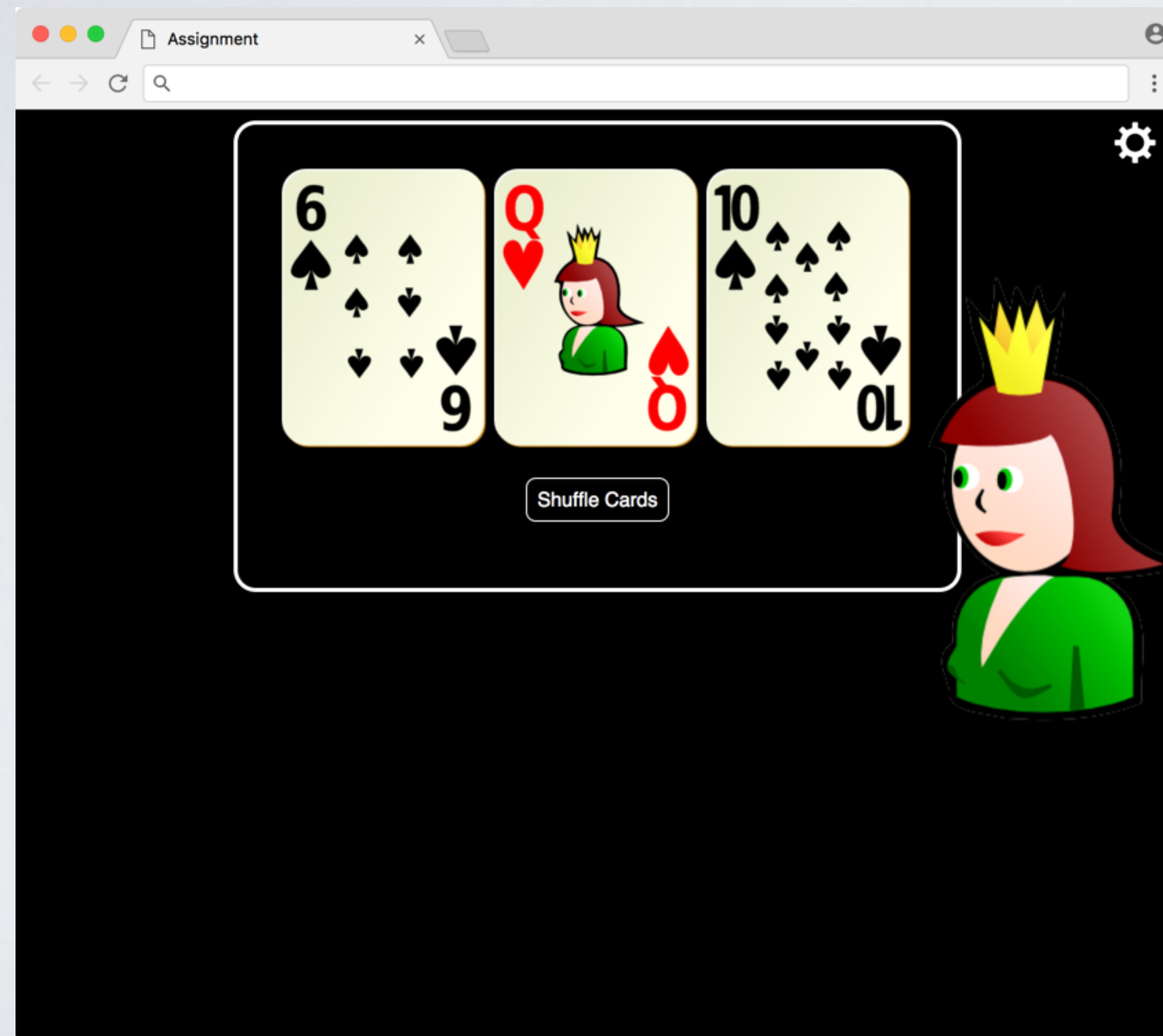


The game is now ready to be played again. Pressing the button will hide the cards again.

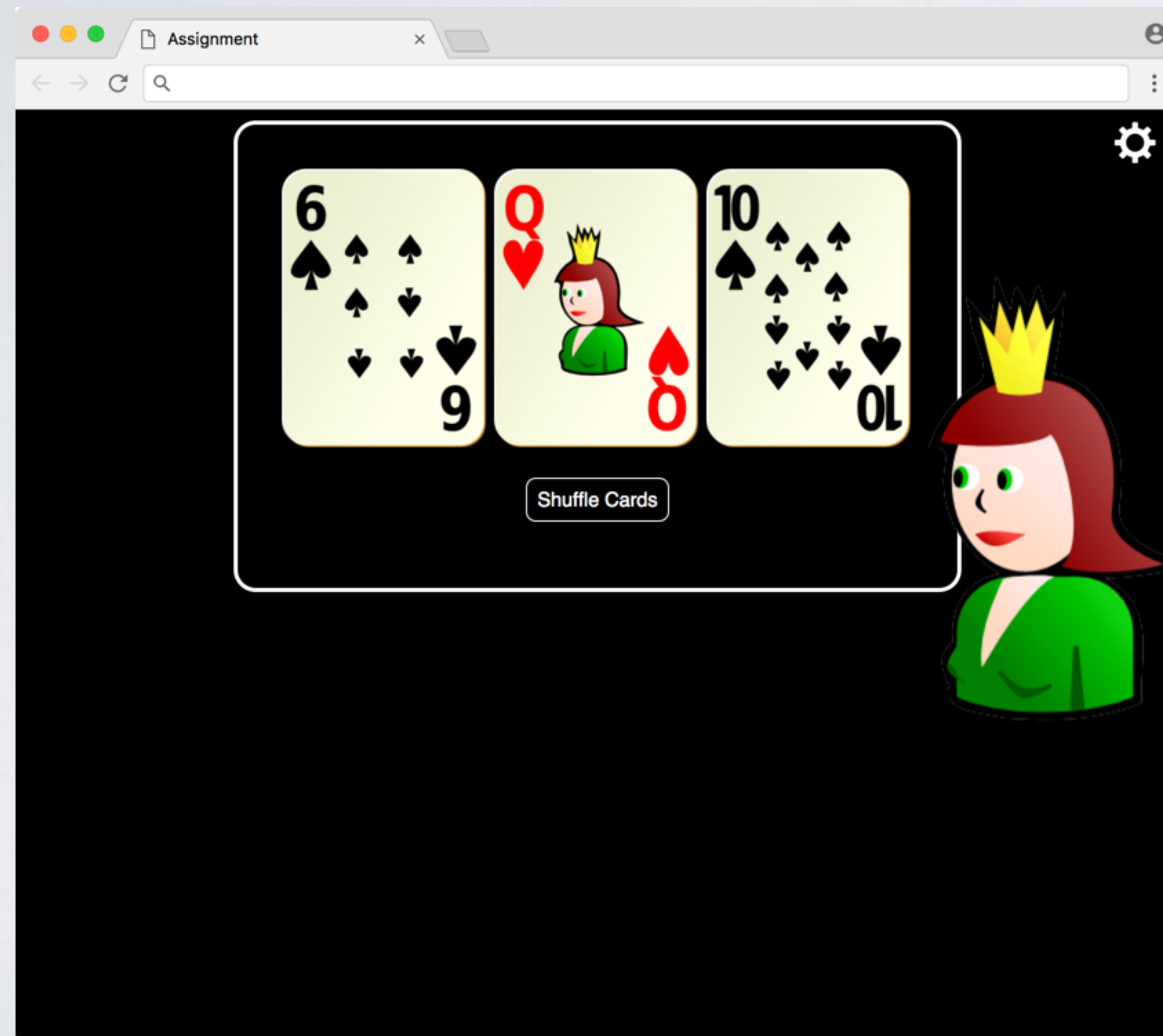


If you click on a card back and reveal the Queen you get a corresponding message to tell you that you won.



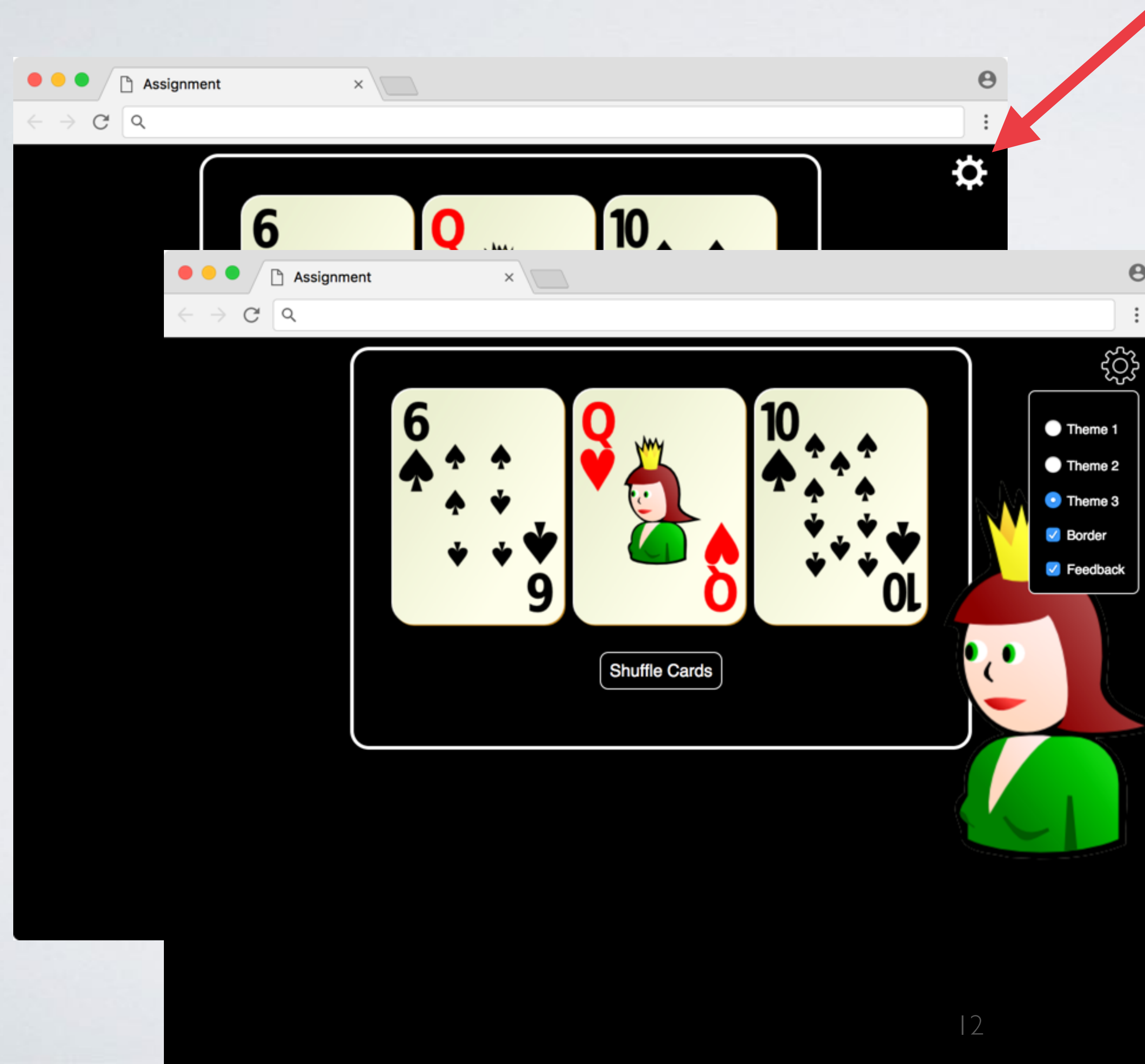


The remaining cards are revealed as before.



**Note:** Clicking on the cards, once one has been selected, should not do anything (until the cards are shuffled again).

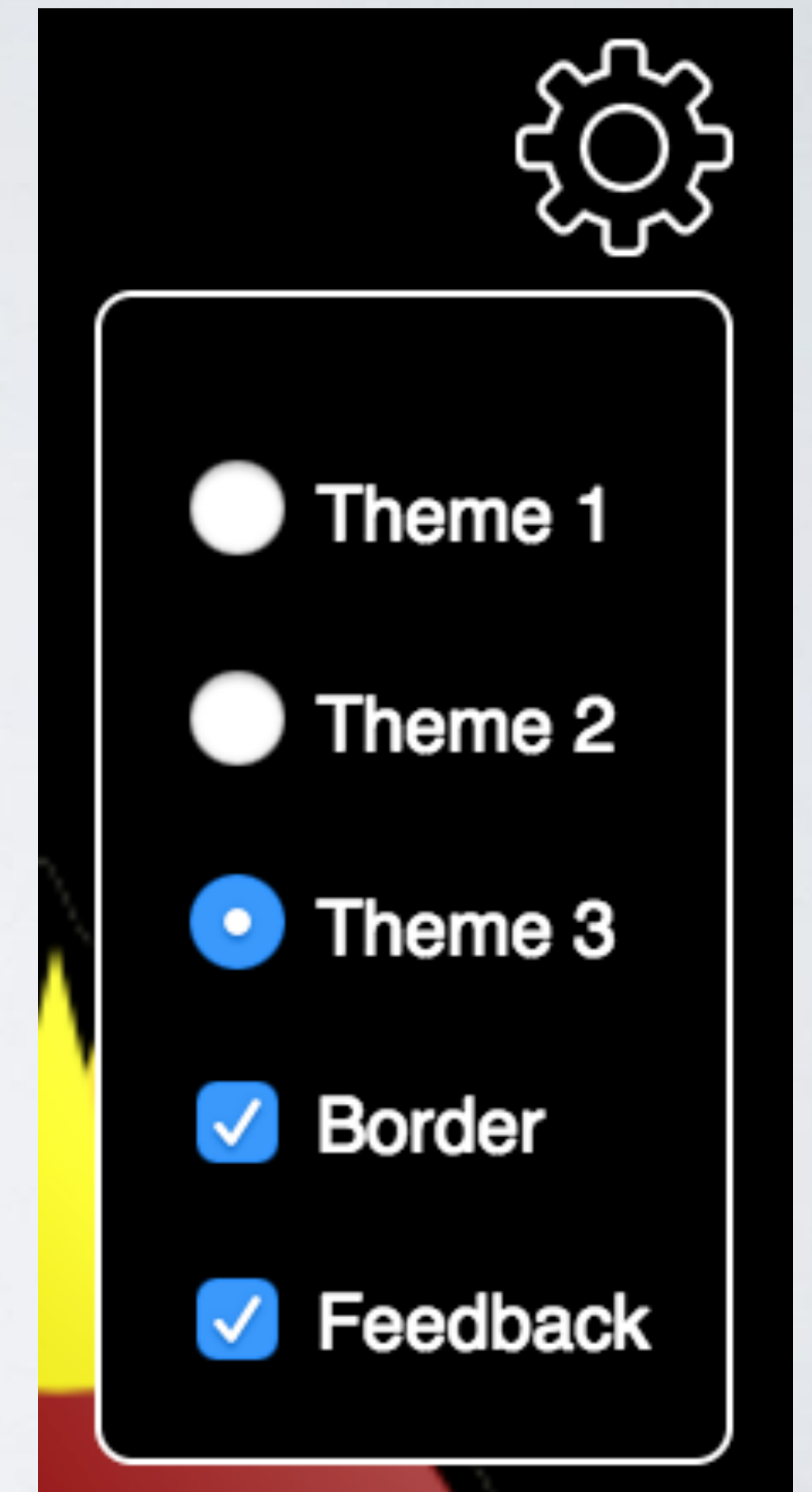
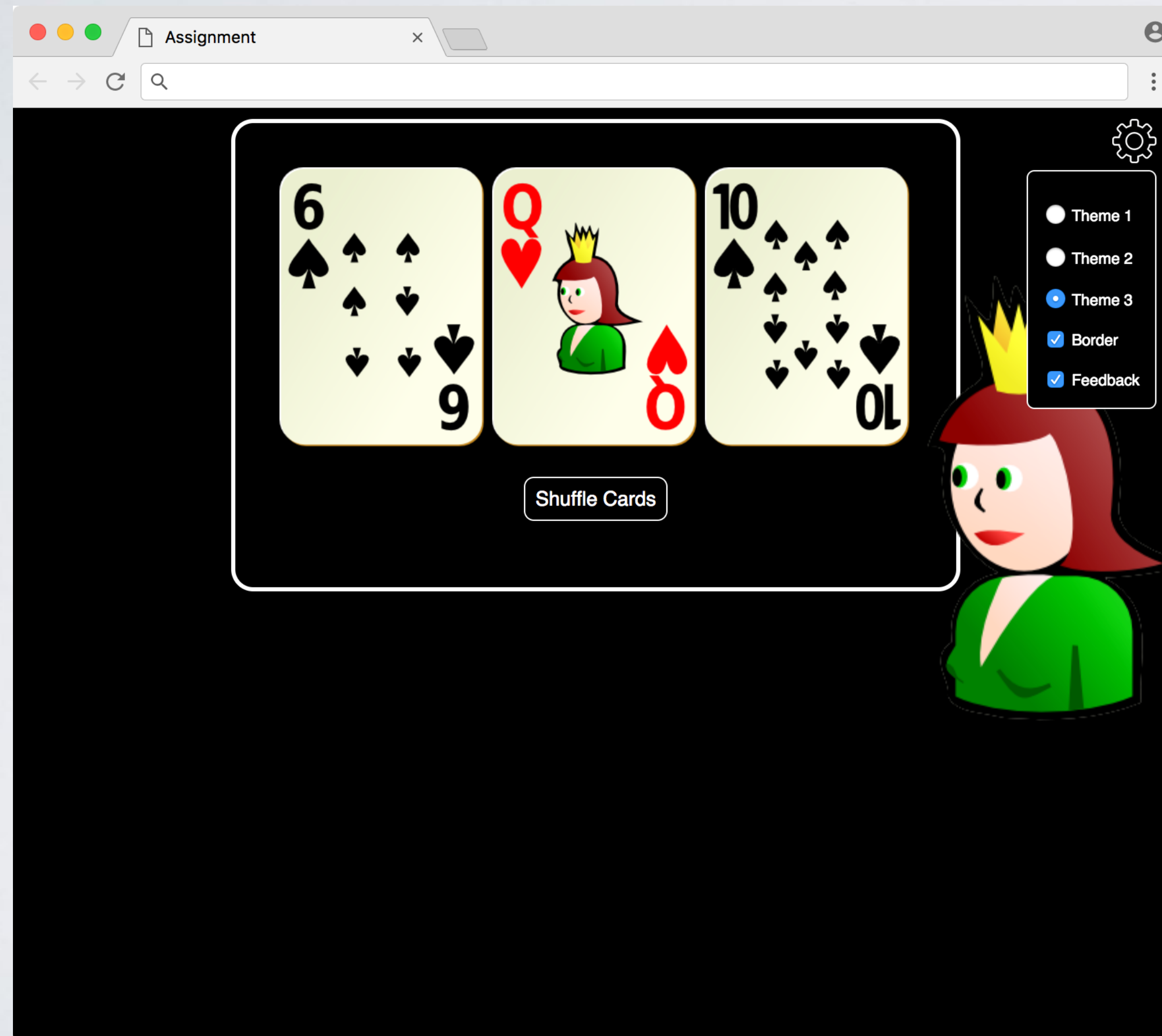
# Settings



Clicking on the settings icon should show the settings menu.

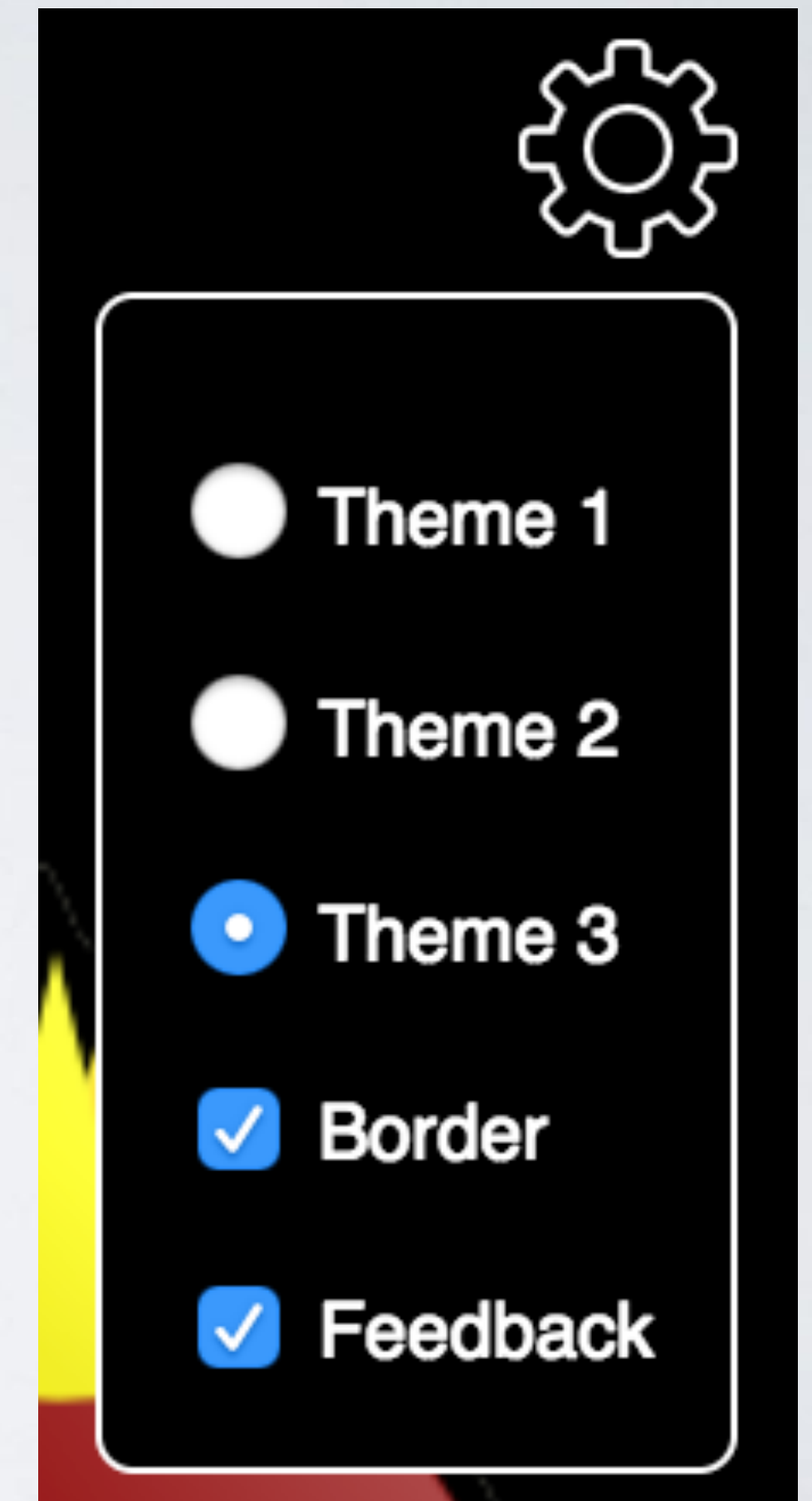


The settings menu allows you to customise the game.

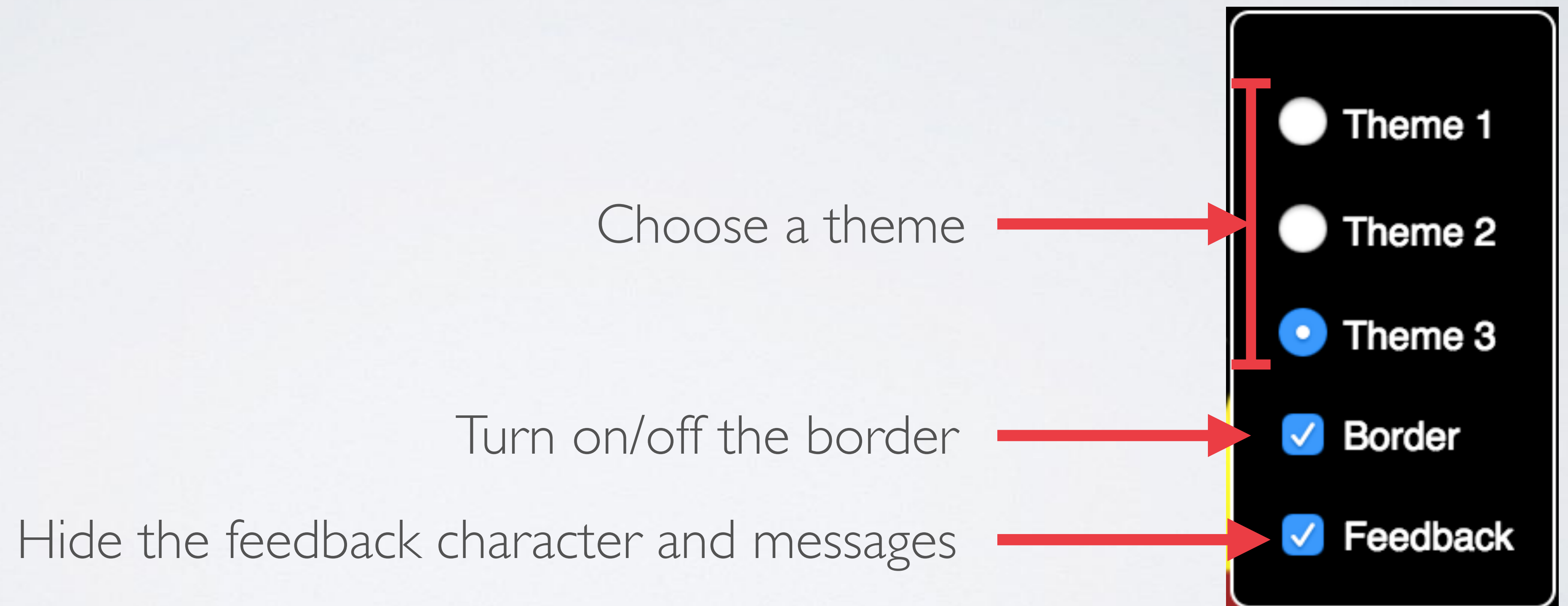


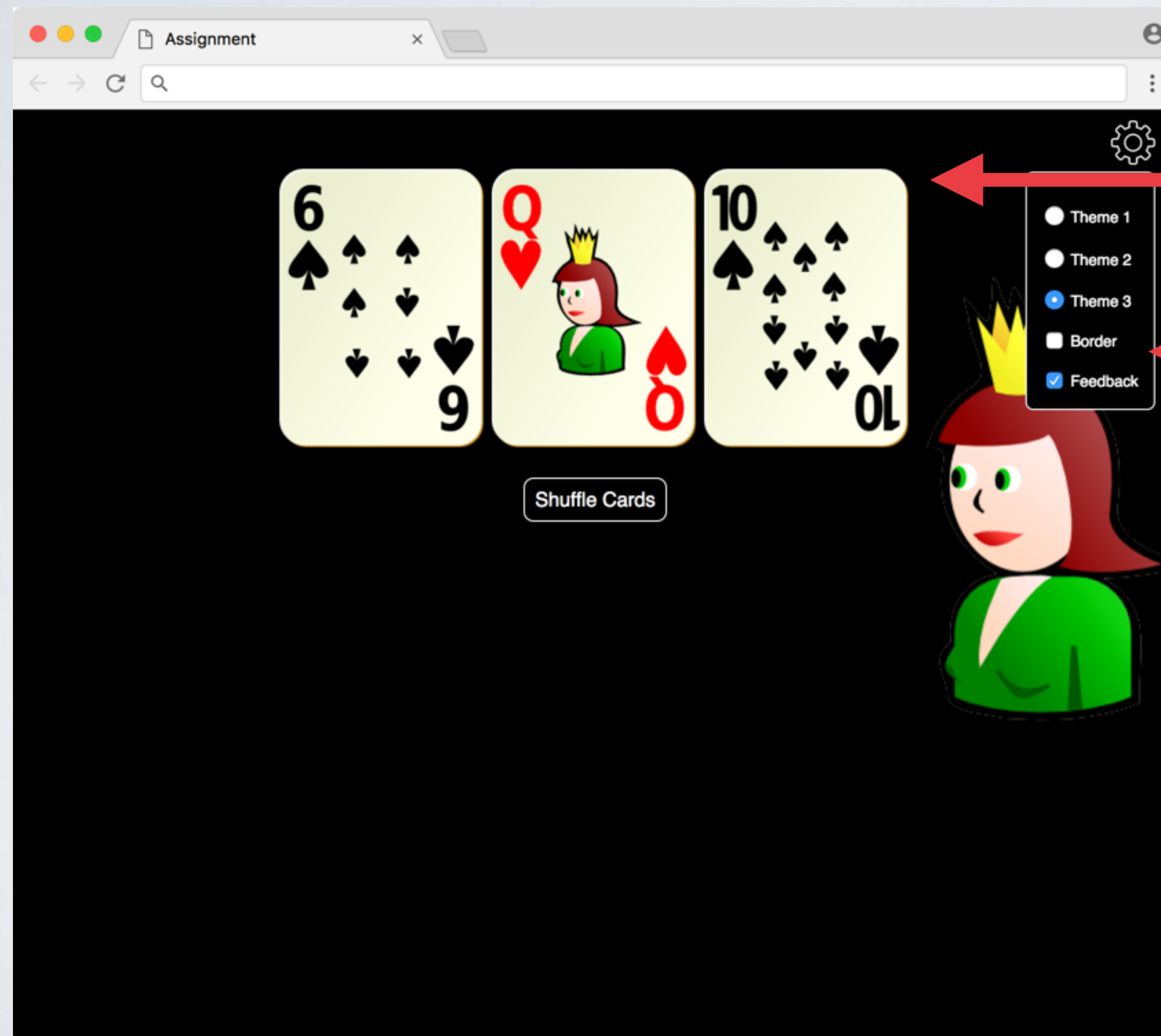


When the settings menu is showing the settings icon should look different.

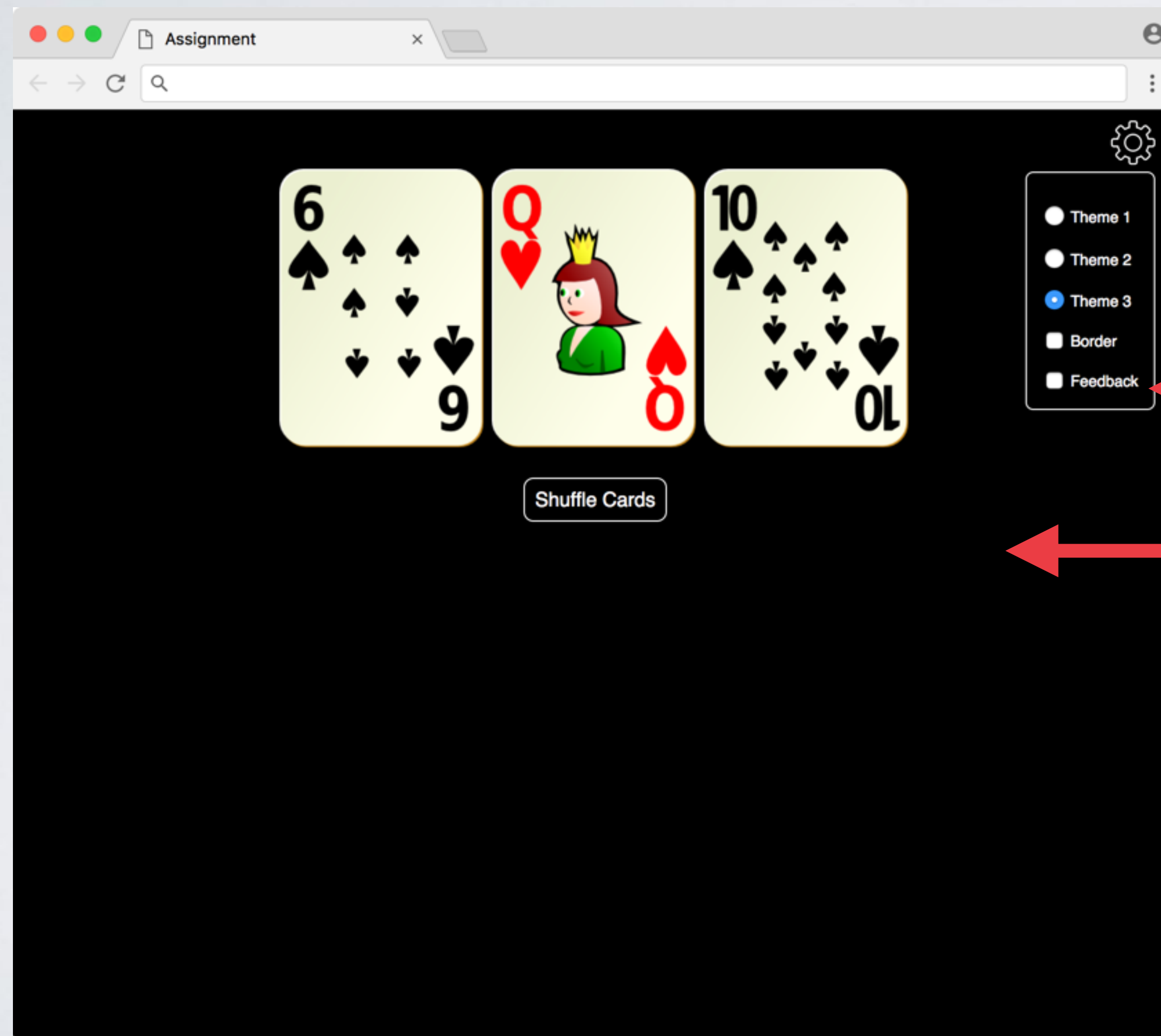


There are three main options you can set.



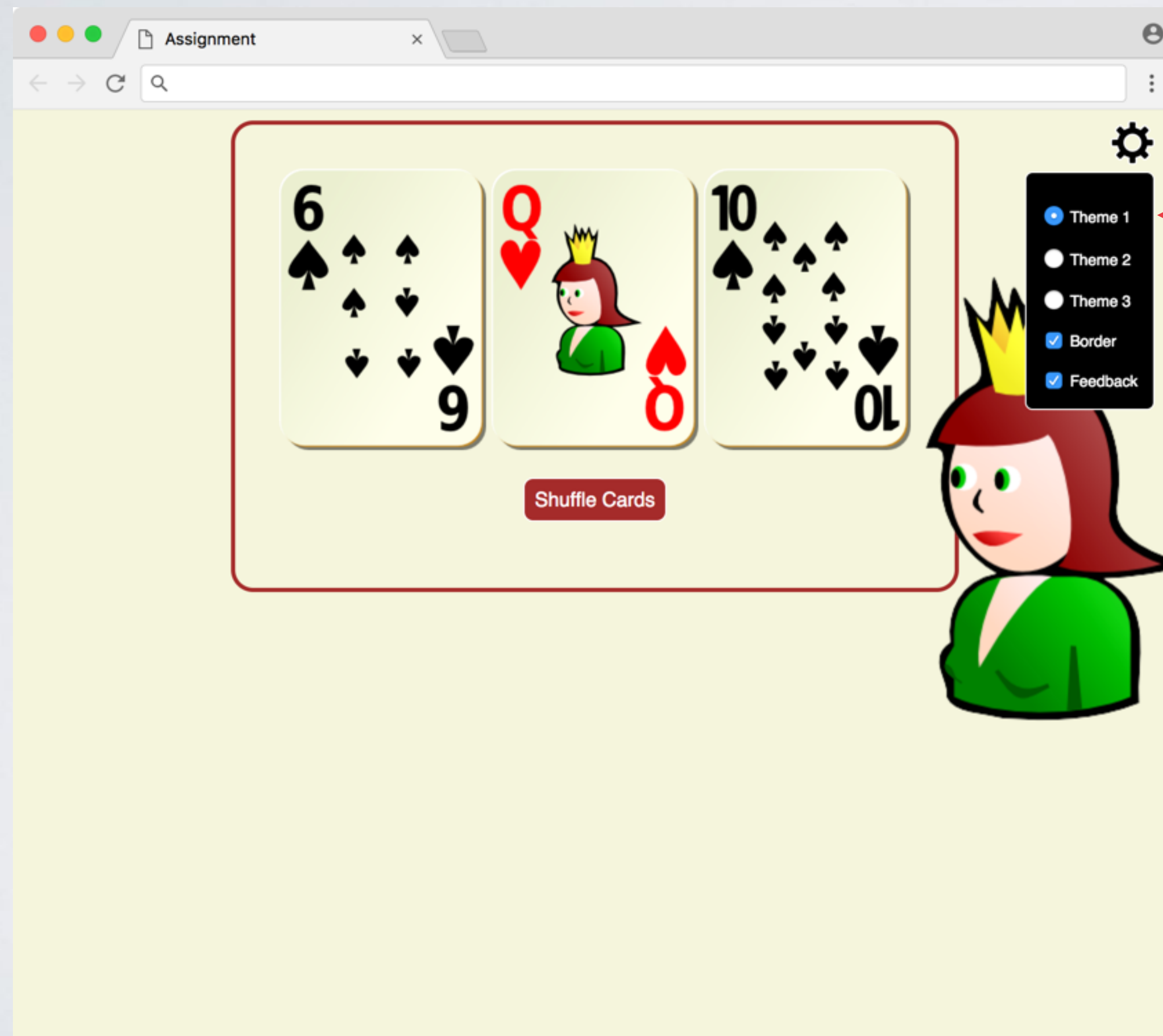


Unchecking the "Border" option hides the border around the cards.



Unchecking the "Feedback" option hides the character image and any feedback that would have appeared.



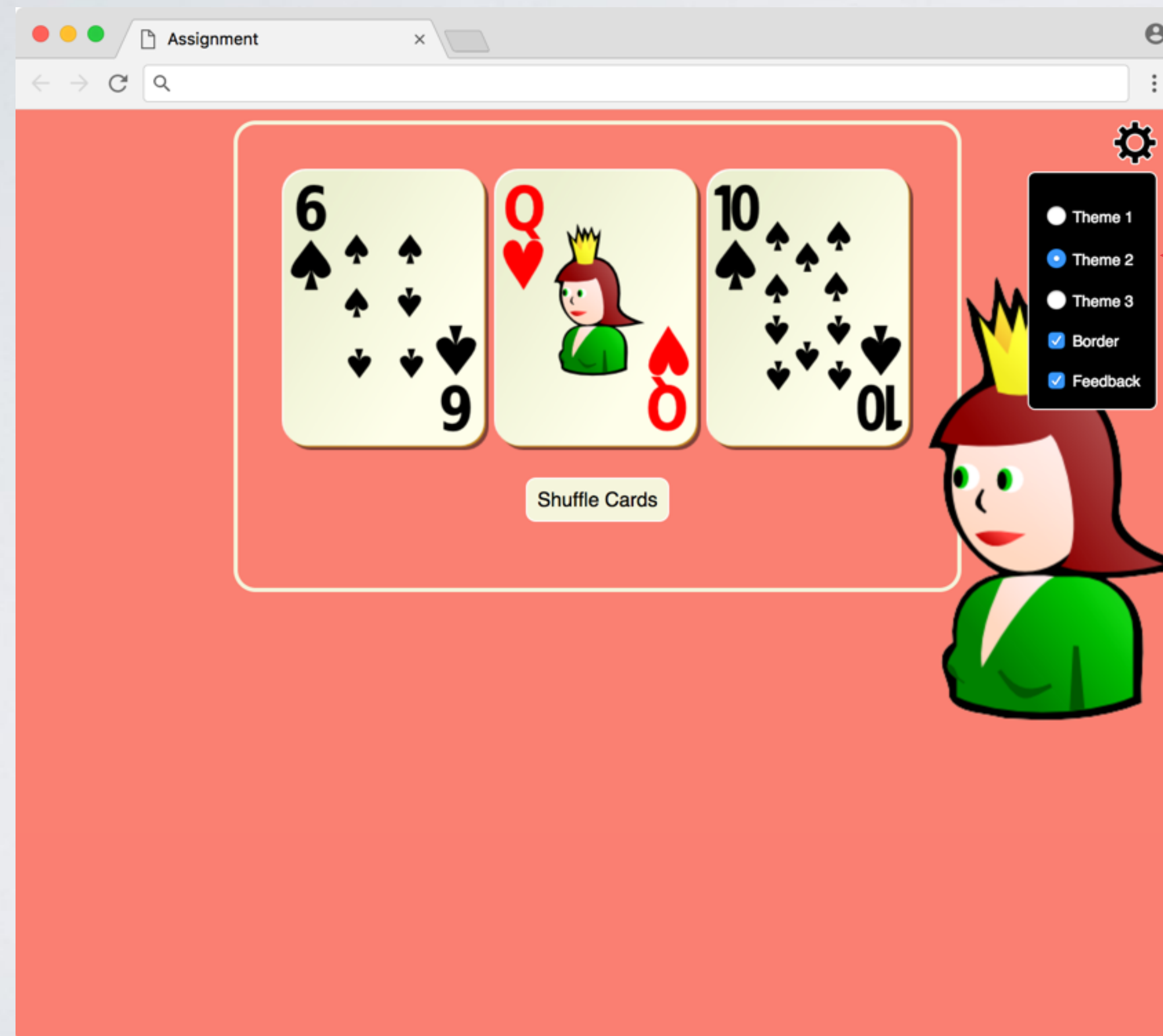


You can choose one of three themes.

Themes can change:

- 1) Background colours
- 2) Button colour
- 3) Border colour

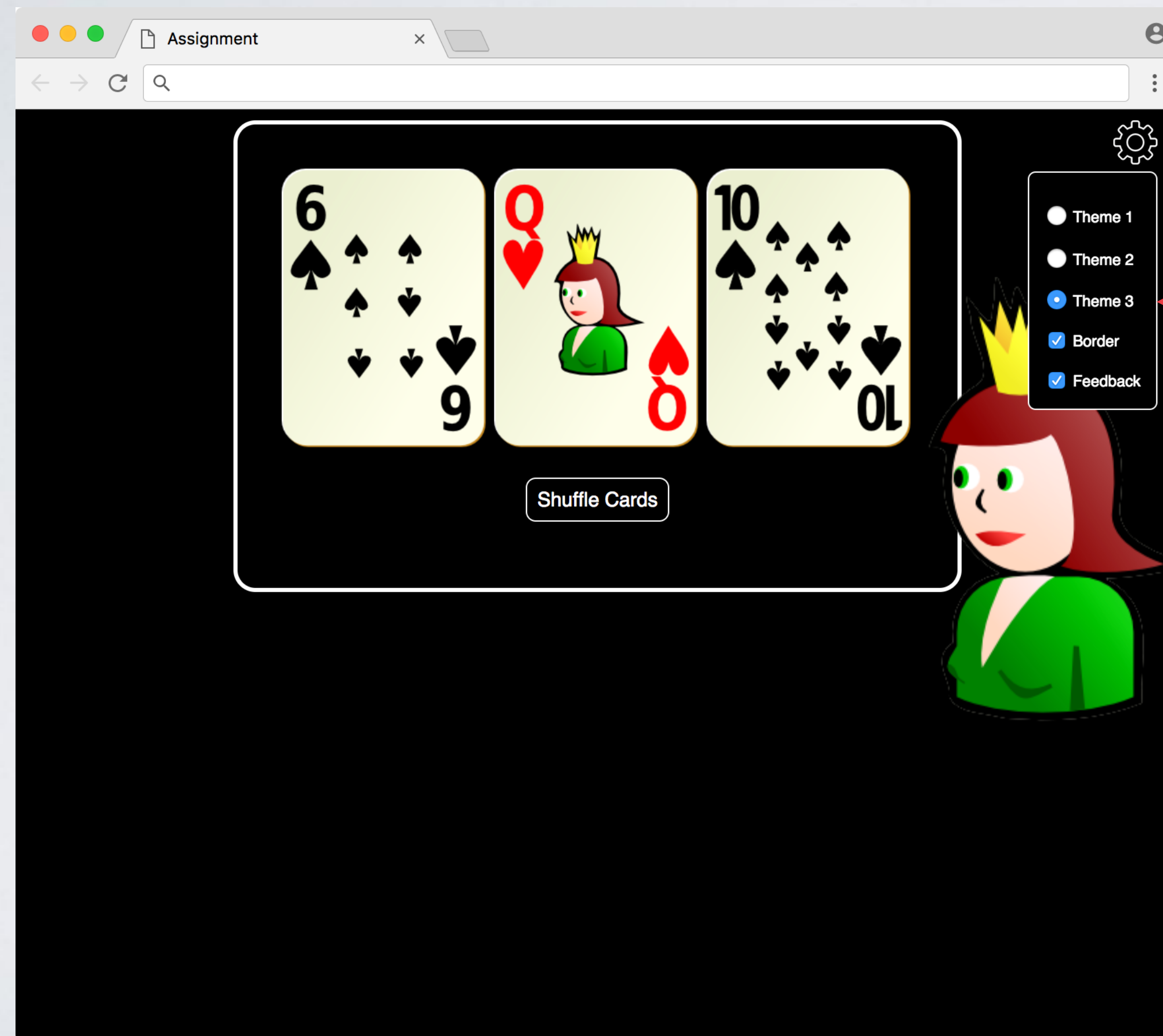




You can choose one of three themes.

Themes can change:

- 1) Background colours
- 2) Button colour
- 3) Border colour

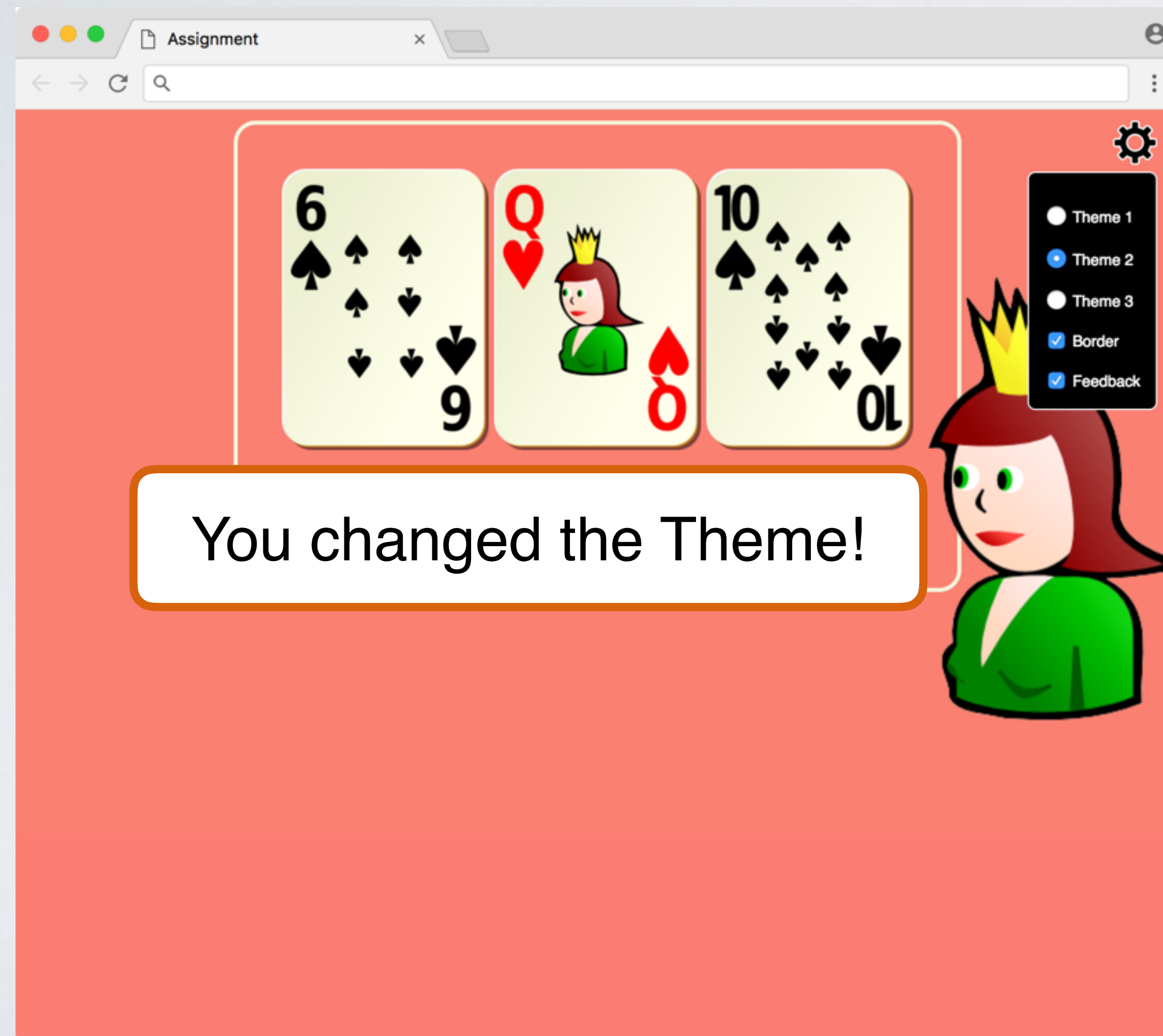


You can choose one of three themes.

Themes can change:

- 1) Background colours
- 2) Button colour
- 3) Border colour

# Feedback

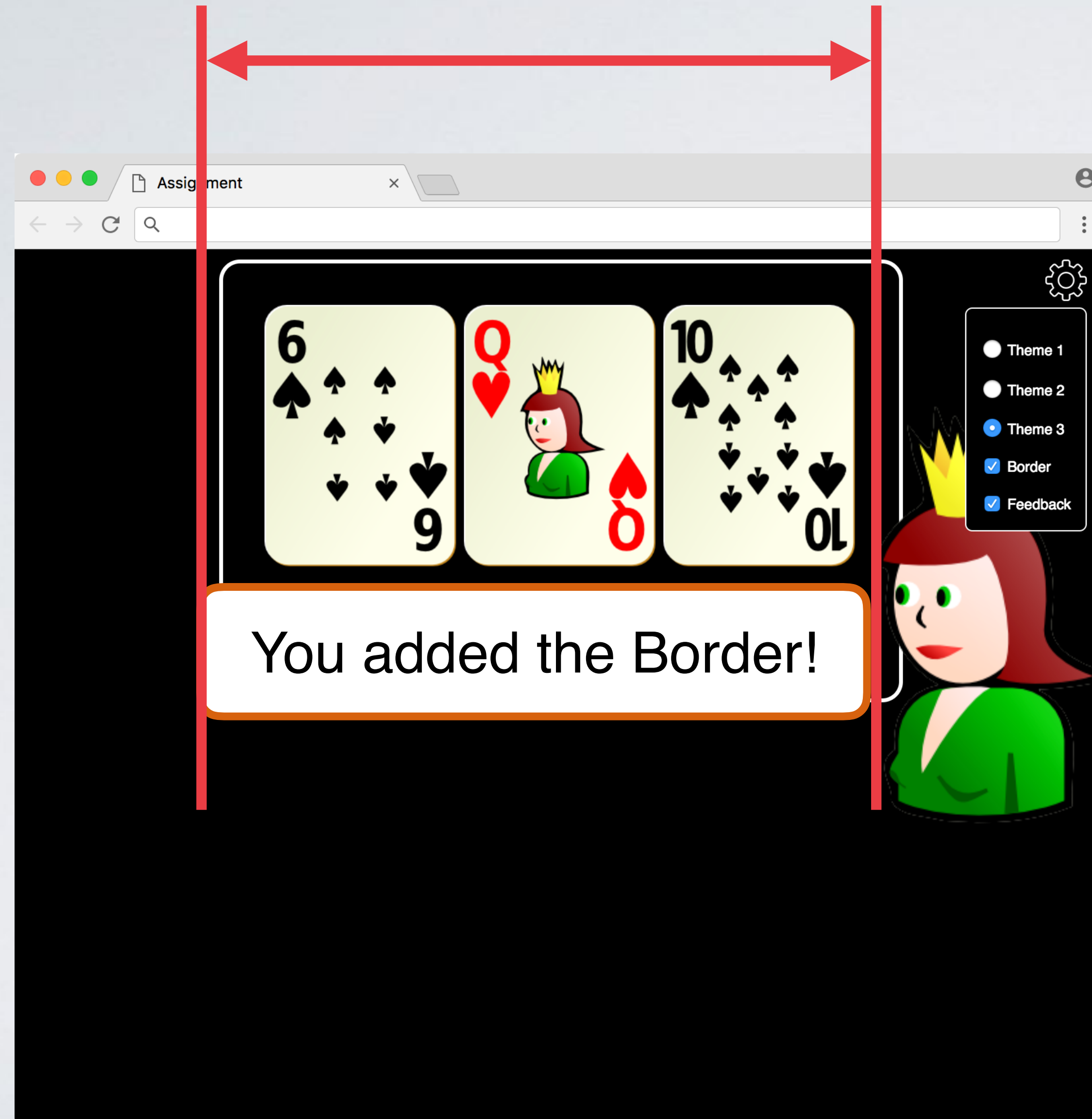


A "Speech Bubble" will appear next to the queen character.

You should write a function that is passed a string and makes it appear.

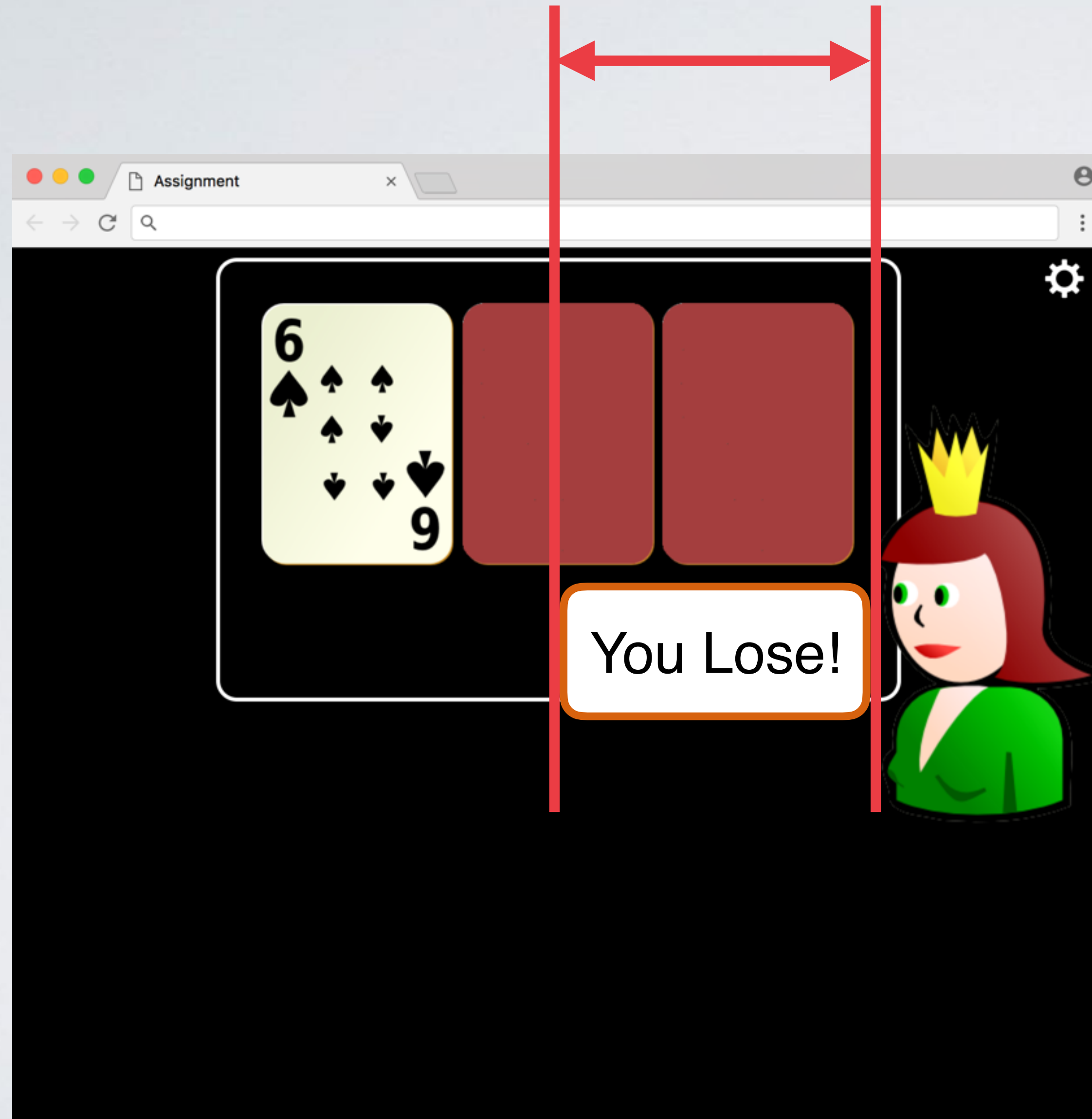
The bubble disappears automatically after a small delay (see screencast).



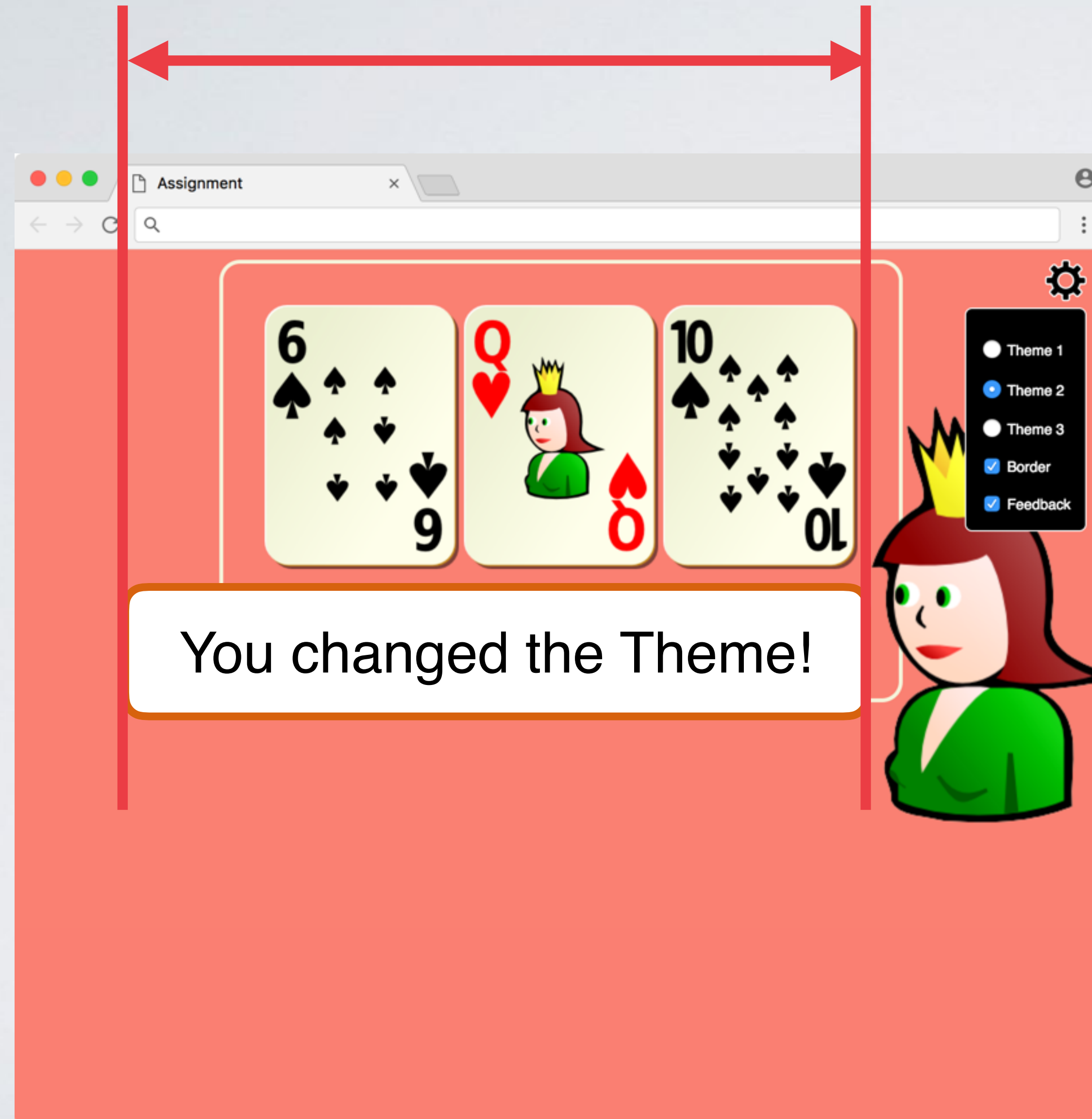


The "Bubble" adapts to the size of the text.

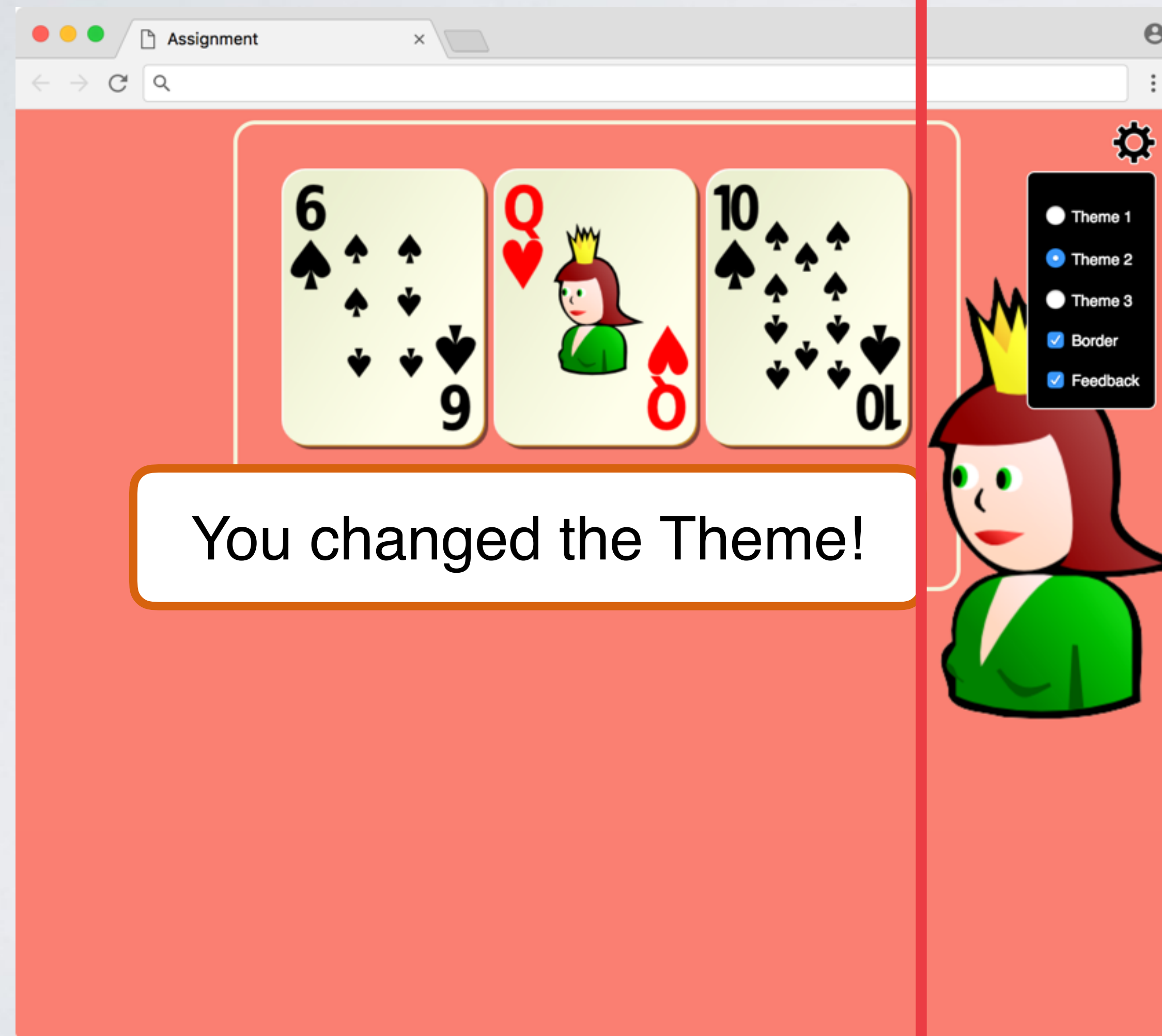




The "Bubble" adapts to the size of the text.



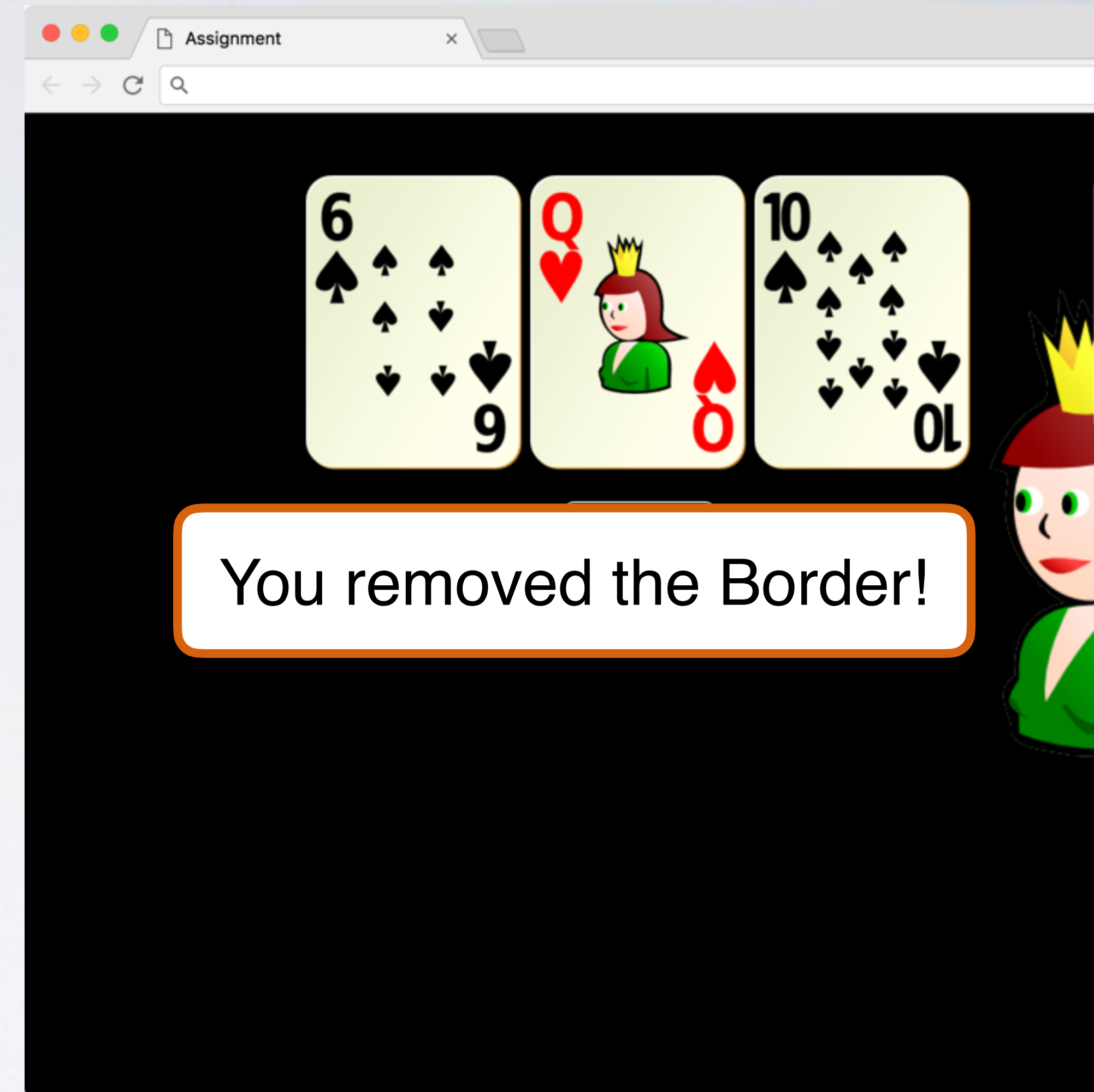
The "Bubble" adapts to the size of the text.



The bubble should line up with the left of the character

You display a message on the following occasions:

- 1) Winning
- 2) Losing
- 3) Selecting new theme
- 4) Adding Border
- 5) Removing Border





When the feedback option is disabled both the queen character and the messages are hidden.



# Tips

Clicking on the "Shuffle Cards" button should arrange for the cards to appear in a different order.

You can do this by saving the cards (e.g. the filenames of the card images) in an array. You can use index 0, 1, and 2 of the array for each of the cards.

Clicking on the shuffle button can sort the array randomly.

You can use this sort function.

```
function randomSort(a,b)  
{  
    return Math.random() - 0.5;  
}
```

You can specify the CSS for each theme using a contextual selector. I.e. you can specify some CSS that won't apply unless it is contained in an element with a specific class.

```
.theme1 div#container { . . . . . }
```

```
.theme2 div#container { . . . . . }
```

```
.theme3 div#container { . . . . . }
```

From a JavaScript point of view, changing themes simply requires changing the class of a containing element. E.g. change the class of the the body tag to "theme1", "theme2", or "theme3".

The **change** event can be used to detect a user checking or unchecking a radio/checkbox (it doesn't distinguish between the two).

The **checked** property of a checkbox/radio button object will be **true** if it has been selected.

```
if (document.getElementById("choose1").checked) { ... }
```



# **Assignment Details**

See provided screencast for more details.

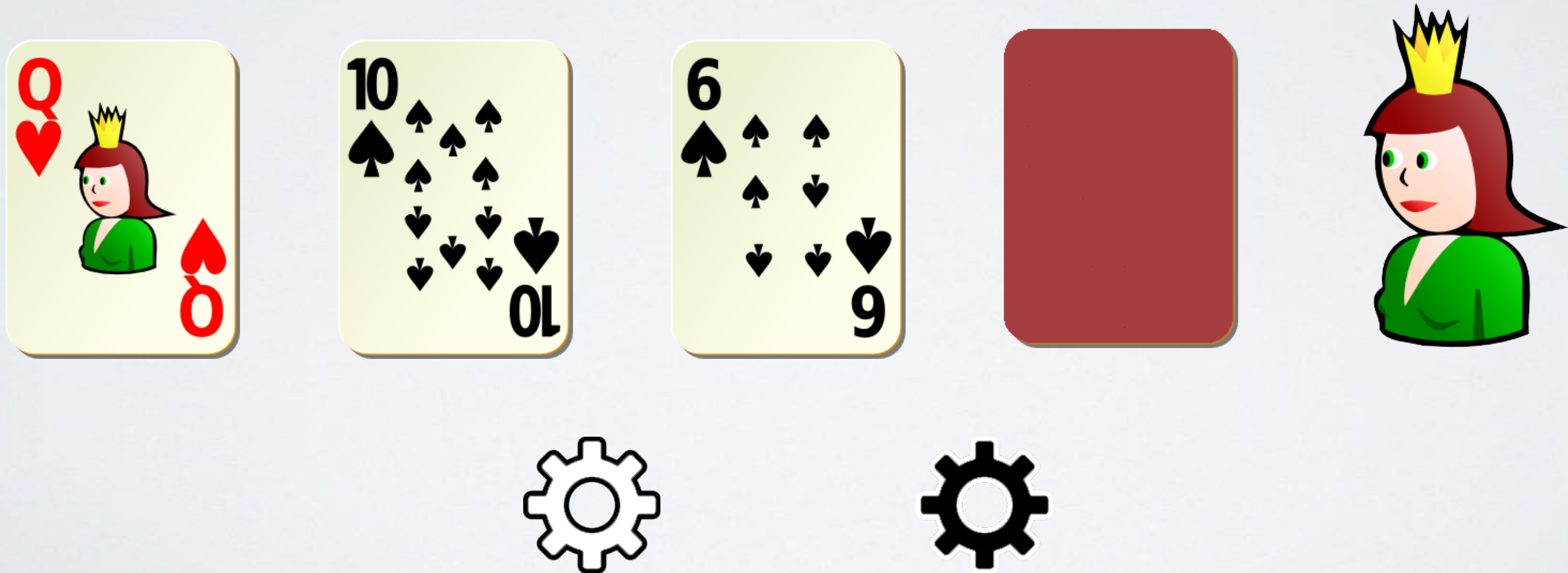
Submit your code on Blackboard by the due date for the assignment. .

All work must be your own.

No JavaScript frameworks can be used

You can create your own look for the game (except where specified in the brief).

This includes choosing your own colours/fonts and creating your own graphics. Or you can use the ones provided with the brief:



**Note:** Remaining labs will be dedicated to working on this assignment.

Attendance is still expected in labs and classes as aspects of this assignment may be covered.