Web Development – Mr. Turner

Project – Card Game Web Site

**Project Overview**

Create a web site where the user will be able to visit and learn about card games and then be able to play one game.

**The Page**

Your site must have a splash page that defines your overall theme and invites the user inside the site.

The splash page should have 2 links, one that takes the user to a page where (s)he can learn about card games and one that takes the user straight to the game.

The information page should have a history of card games and some information on your game and how it is played. The design of this page is very important. It should be intuitive and not overwhelming. There should be a link home and a link to your game.

Your game page is where your user will play the game you've chosen to make. Whichever game you choose, you should begin with the following:

* How will you represent a card in Javascript?
* How will you represent a deck or a hand of cards?
* What actions are regularly performed with the cards and how will you program those?
* How will the user interact with the cards (how will you separate your front end interface from the back end representation of the cards)?

**War**

War is a game where 2 players each play 1 card at a time from their hands. The player with the highest card collects both. If there is a tie, they have a war. The player who captures all of the cards wins.

The player will play against the computer.

At the beginning of the game, the deck will be split up into 2 halves, each half going to a player.

During each round, each player will flip the top card from his or her or its deck. The system will compare them. The player with the higher card will have both cards added to his or her or its deck. If there is a tie, then there will be a war.

The Ace is the high card.

When there is a war, each player will play out 3 more cards, face down. A fourth additional card, played face up, will complete the play. Again, the player with the higher card takes all of the cards on the table. If there is another tie, then a second war ensues. Repeat this process as necessary.

If a player should run out of cards in the middle of a war, the last card (s)he played will be played face up and match up against the proper card played by the opponent (the 4th card). If there is a tie, the player with cards must continue to play out as normal while the player with no cards waits and uses the same card.

The game ends when one of the players has run out of cards.

**Twenty One**

Twenty One is a game where a player attempts to bring his or her hand as close to 21 without going over by taking extra cards from the deck.

The computer will be the dealer and the human will be the player. Both the dealer and the player are dealt 2 cards. Both of the player’s cards are face up. One of the dealer’s cards is face up and the other is face down.

* All numbered cards are worth their face value in points.
* All picture cards are worth 10 points.
* Aces can be worth 1 point or 11 points depending on the hand.

The player will then have the opportunity to hit or stay. If the player hits, (s)he gets the next card from the deck. If (s)he still has less than 21, (s)he can hit or stay again. The player can keep this up until (s)he busts (goes over 21) or decides to stay.

If the player busts, the dealer wins. If the player stays, the dealer flips over its face down card and must complete its hand. If the dealer has less than 17, it ***must*** hit. If the dealer has 17 or over, it ***must*** stay. The player with the hand closest to 21 wins.

If the player and the dealer have the same number of points, it’s a push and no one wins.

**Programming Requirements**

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| * You must code your own HTML and CSS. Use of a drag and drop interface or the usage of code downloaded from the internet is not permitted. |
| * Use of deprecated code is not permitted. Use an HTML 5 reference as your guide. |
| * Your home page must be named *index.html*. |
| * You must comment your name into the top of every page. |
| * Your code must be structured in a consistent and legible manner |
| * Your text must be organized through the use of sectioning tags (div, span, p, h1 – h6). Tables are acceptable for data but not for page design. |
| * Your interface must be smooth and easy to figure out for a client. |
| * Your pages must be formatted using CSS. |