Wisha Jamil

Dr. Rao Casturi

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Blackjack Game Project Proposal

This project aims to know about the blackjack game and the technology that makes the game work. For this term project, I am building a simple blackjack game between two players, where one of the players will be a human, and the other player will be the computer. In a blackjack game, cards are being compared between one player and a dealer. In the game, there are three buttons: hit, stand, and deal. In blackjack, if yours or the dealer's cards add up to be more than twenty-one, that means the player will bust, which means the player would no longer be able to add cards to his hand. Once you click the hit button, you will have a card face up in front of you. If you want more cards, you can click the hit button again. Once you are satisfied with your hand, click the stand button to start the dealer's turn to pick the cards. If player's cards add up to be more than the dealer or when the dealer bust, the player wins, but if player scores are less than the dealer player loses. If the player and the dealer cards add up to the same number or the player and the dealer both bust, the game will draw. Also, when you the player bust but dealer does not, you lose and dealer wins. If you want to play a second round, click the deal button and game resets.

To build the blackjack game's front end, I am using HTML Hypertext Markup Language to make the game display in a web browser. First and foremost, at the beginning of the HTML file, I will link the CSS file to the HTML file by placing the CSS file's path. I will also call public content for the front-end part of the game called the bootstrap. I will use the bootstrap library to choose the correct color for the buttons: stand hit, and deal. For the body tag, I plan on creating a div that is like a container that will tie the whole front end of the game. Within the main div, I will create multiple divs. I would be able to use div as a way of dividing the different parts of the game. Within the div, there will be three main divs. The first div will be creating the first part of the game: dealers and the player's box. The second part of the game would be three buttons hit, stand, and deal, displaying the cards on the screen once the hit button is click. The last part of the game will be the table that will be used to record the result of the game. The table would count the number of wins, losses, and draws of the game for you. In the end, I will create a button that will be linking to another HTML page, and it will take you to a submission form for an exclusive invite for the game. In the submission form, the player would be able to add his information, which will be stored in the email database using MySQL and PHP. There will also be a script tag where I am placing the path of the JavaScript file to link the JavaScript file to the HTML file.

Secondly, I will use CSS Cascading Style Sheets to design the front-end of the game. CSS is the language that describes the presentation of a document written in a markup language HTML. For the CSS to work, you place the name of the div or class you want to style with the period at the beginning of the name and the curly brackets around it. If the same styling applies to more than one class or div, you can also do all of them together by separating the names by a comma. A few of the most popular styling that I plan on using are the border, width, and padding. Few other stylings that I will use can be text-align, flex, and justify-content. These stylings are essential to align the front-end of the game in a certain way, such as covering the space or aligning the text according to the screen. One more thing that will be in the CSS file is setting the background like a green poker table. Rather than saving the picture in the server, I would style with the attribute name background, which will be the background of the screen and place the URL from the google images and center the image according to the game size.

Thirdly, for the back end of the game, I am using a scripting language JavaScript. JavaScript is the one that will make all the functions happen. Firstly, in the JavaScript file, I will create some variables using let where I will define player's and dealer's divs, all the cards in the game and their value, and wins, losses, and draws. There will be some constant variables as well because they will remain the same throughout the whole JS file. All the sound effects and picture for the game will be placed in the JS file. In JavaScript, I plan on creating several functions such as a function to randomize the cards for the game, and then I will create a function that will show the cards on the screen when you click the hit or stand button. Because we are also keeping track of the wins, losses, and draws, there will be a function that will update the score as you play the game. There will be another part of that function because ace can be one or eleven. I will place the conditional statements stating that if for the active player, the score is less than or equal to twenty-one, add eleven to the sum of cards otherwise one. Moreover, a separate function to show the player's score, where I will also add some style in the JS file by changing the color of the text. In the end, there will be functions to find out the winner and show the result. For these functions, I will use conditional statements to find out who will win the game based on the sum of the player and dealer's cards. Also, a message would show up on top of the game when you win, lose, or draw.

While working on the front-end and back-end, several things can be used to help throughout the project. One of the things that I plan to use to solve my problems while working on the front-end is by clicking the inspect view page and doing the CSS styling there because as I am working, I can see the changes. For the back end, I plan to use the console.log command in the JS file to check my work. I will be using console.log for everything to check my logic and see if the logic works.