Java Black Jack

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For my project I want to do a graphic based black jack game using the coding language Java. The basic set up for my game will be as so. My project will allow the player to play as many games of black jack as they like versus the computer and bet in certain increments on each hand. The rules of black jack I will be playing with are as such. The highest number under or equal to 21 wins the hand. If there is a tie the player wins. Aces are worth one or eleven and the player gets to choice. The player gets to hit as much as they want but it they go over 21 they lose. Once they player is done hitting they computer will hit if its value is under 14, but stay if it is above. If they computer goes over 21 the player wins. Face cards in my game (Jacks, Queens, and Kings) are worth ten. Suit will not enter into the winning and losing in this game but I will display suit of the cards.

The basic set up of my game will go as such. It will start with a title screen that will have a space for the player to enter their name and two buttons; play black jack or quit the game. When they input their name press play, they will be given a set amount of start money to play with, around 1500 coins. The game will then go to the playing window in the player window before the game starts there will be buttons for the player to press so that correspond to different bet amounts or quit. This window will also show the amount of money they player has and their name. In the playing window it will deal two cards to the player and two to the house, the computer. The player will be able to see both of their own cards but only the value of one of the computers cards, the other will be upside down with a pattern on the back. Their will then be two buttons under the player’s cards; Hit, Stay. If they player hits the Hit button a new card will come up next to his other cards. They player can keep hitting as long as they want or till they are over 21. Once they player is done hitting they will press the Stay button, The Stay button will allow then allow they computer to play. If the computer it they player will be allowed to see the cards it has, and once it is done all of the computer’s cards will be revealed to the player. Then one of two text boxes will appear in the middle of the graphic. The first one is if they player wins and it will say, “Congratulation you want % coins” (where % equals twice they amount you bet). The other text message will be if they player lost and it will state, “To bad you lose % coins” (where % equals the coins they bet). After this it will cycle back to the betting screen and they can keep betting or quit out. With they betting if they do not have enough coins to bet that bet it will tell them and they will have to bet less or quit.

E

10

Bet

50

100

500

1000

Quit

Start Screen

E

Enter Name

Play

Quit

There are a few problems I know I will face when completing this project. The first is with getting the cards to show up. I want the cards to be their own graphics, but for the program to see them as their number too. This problem hopefully will not be hard to overcome. My next big problem will definitely be figuring out how to implement the ace as eleven or one, an I am not sure how I am going to allow the program to work on this. The final large problem I know I am going to encounter is making sure there are no duplicates. I do not want there to be a chance that a card that already is on the table comes up again because it ruins the odds of the game.

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Stay

Hit

House Cards

Player Cards

For each of the problems I outlined above I have a few ideas on how to fix them. For the graphics of each card I think I am going to find of each card and import them into my program. This will allow each card to be it’s own image. I will then have each image have a certain number assigned to it as it value and as it calling number. The value is what the value of the card is and the calling number will the number representation of it in the random function, which picks the card randomly out of the deck. For the ace problem, I am thinking a pop up message that asks if they want to use it as a one or an eleven. I know this will deviate for the real rules of black jack, where you can switch back and forth, but I am not sure how to allow the player to do that. For not allowing duplicates of the cards to show up I will use an if statement which is the calling number is the same as one on the table it redoes a random function and picks a new one till it is not the same as one on the table.

This project will also have me looking up a lot of new material that I will need to know to complete it. I will have to learn graphics in Java along with buttons, because they are both key to my project. I have been introduced to randomizing functions but I will have to learn more about them also. The betting system I believe I have the background already to do in Java.

My basic plan to complete this project is as such. Over Thanksgiving break I want to complete the graphic side of my project and the buttons at least. After that I will work on the coding for playing black jack and finally the betting system. I am cutting it up into smaller sections to complete because I believe it will cause the project to be more manageable.

I believe this project will allow me to have a large understanding of many aspects of Java. It covers many area including; Graphics, Conditionals, Loops, and many more. I am very excited to explore the graphics side of Java because I believe that is one of the major uses for Java. Hopefully after this project I have a deeper understanding of Java

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