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Software Development I

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Blackjack Simulator

For my final project, I will look to create a program that allows a user to play game of blackjack with a CPU dealer. It will give the user an option to see their cards and one of the dealers card, then have to choice to hit or stay. My code will calculate how much each card someone pulls is worth and if their value is under, equal to, or over 21 with an "if statement." My simulation will run through many loops where the outcome of the players choice to hit or stay will be shown after they choose. Lastly, I will also try to include a starting salary for the player to have when they begin and after each game, their salary is deducted from or added to based on the outcome of the game. If the user uses up all their money, it will inform him/her that they can no longer play and must run the program again in order to obtain money to play again.

I have always been intrigued with the way card games in casino's work. It seems that no matter how hard you try, you can never come away a winner! So with my code, I want to program this blackjack game myself and see if there really is some sort of fixed winning or losing at casinos. While I have already seen someone a simulator similar to

this before, I have never seen how it was coded or have a starting salary to go along with it. I think this will be a really cool idea but will be take a lot of effort. While I am not sure how to finish this simulator yet, I am sure it will take a lot of “if statements” and “while loops.” I am looking forward to starting this project and hope to enjoy to process of creating it.

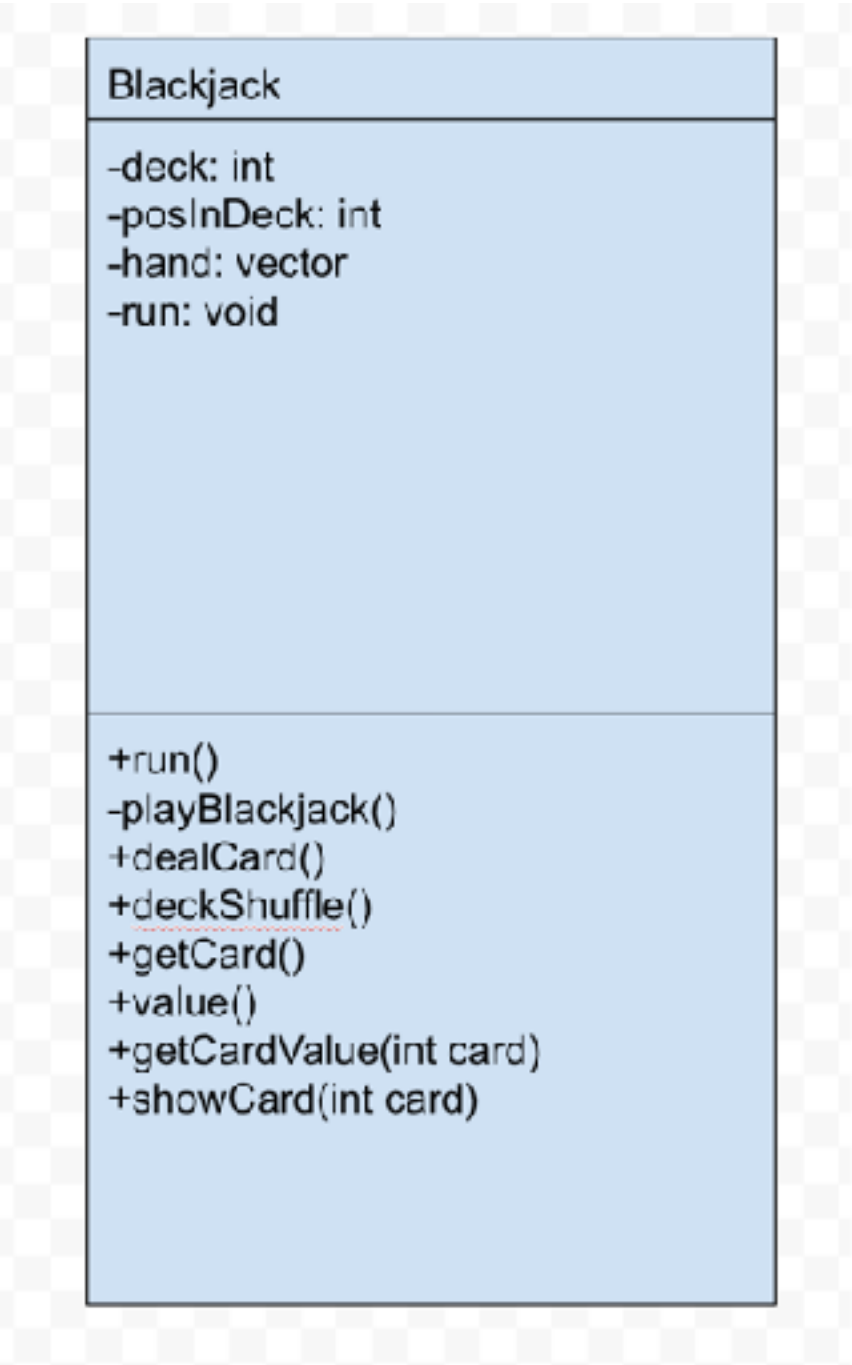
Introduction

While I have never tackled a task like coding a Blackjack game before, my love for coding and interest in this card game will help be strive to do well on this project. The difficulty of this task if more about the quantity of coding I will have to do and not the difficulty of coding itself. Since I have in fact used most of this coding before, I believe I will be able to get through this project and gain a substantial amount of experience in coding in Java.

Detailed System Description

The system allows the user to see the cards he received and then one of the dealers card. After this, he makes the choice of if he would like to hit or stay based on the card he has and on the card the dealer is showing. If he chooses to hit, he will have another card added to his total. If it is over 21, he will lose. If it remains under 21, he will be asked the

same question. If he is equal to 21, the dealers card will be shown and the CPU will decide what the dealer does. There will be a main class called Blackjack which will have many methods inside of it that express how the cards are declared and the cards are analyzed.



User Manual

The way this system is used is by having the user select if he wishes to stay or hit based on the cards presented. The “if statements” in my project determine that if he chooses to stay, the dealers cards will be analyzed and the CPU will determine if the dealer hits or stays. If he chooses to hit however, the user will run through the if statement again and will be presented with another card where he will now be able to select if he wishes to hit or stay again. Once the user finally decides to stay and the dealer’s cards have been finalized, the system observes who has the higher under-or-equal-to-21 total. If the user has the higher total, the money he risked will be added to the total he started the game with. If the dealer has the higher total, the money the user risked will be deducted from the user’s original total.

This system is purely for recreational use for people to play a fun game made in java on their computer. After the user is out of money, the system will inform them that gambling is not good and see how fast they can lose fictional money. After this decision, if the user chooses to play again, the system will restart and begin to play. If they choose to end, the system will finish.

Conclusion

Although I have never done a project in java as long and interesting as this, Im glad I was able to finish this project in a timely and hard-working manner. While this project did give me a fair-share of difficulty, I enjoyed writing the code and letting all of my friends try out my blackjack game. So despite the difficulty, I am glad I was able to learn more about Java and how intense coding can be when the right idea is in mind. I would love to do another project like this in the future and look forward to my future ahead with coding.