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Final Project Write Up
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For my final project, I decided to create a java program that would make playing the dart game, cricket much easier. Typically, keeping score in the game was a little tricky and almost always required some form of pen and paper in order to keep track. Thus, I created my program in order to automate this process, allowing players to enter their scores and receive a printed scoreboard every turn.

The main challenge facing this code was accounting for many of the rules and stipulations which come with the game. First off I had to create a way to distinguish whether it was player 1 or player 2's turn. I solved this problem by creating an int (turnCounter = 0) which increased by one every time three scores were entered (three scores because three darts are thrown each turn). With this int in place, I was able to create two if statements which took the remainder value of (turnCounter) when divided by two. If there was no remainder the program started player 1's turn and if there was a remainder the program started player 2's turn. The next challenge was to create a way to limit entries by the player to numbers between 15-20. In this game, values 15-20 are the only ones that matter and are the only way a player will gain points and win. Creating a switch statement for player 1 and 2, I placed case statements in each that would only run if a value between 15-20 was entered. If a number higher or lower than that was entered, the switch statement would move to the default case and print a line to the screen stating the entered value is not an acceptable value.

Next, after creating a large series of ints to initialize the values for player 1's scores of 15-20 and player 2's scores of 15-20, I began to construct the scoreboard. The scoreboard is simple enough as it is just a lot of "*" and "_" symbols printed out in order to form a rectangle shaped scoreboard. The idea of the game is to hit 15,16,17,18,19, and 20 on the dartboard 3 times. When say player 1 hits 20 three times, anytime he hits 20 thereafter, he will gain 20 points to his total score until player 2 manages to hit 20 three times. When that happens 20 is considered "locked out" and both players can no longer gain any points from it. So this in mind, I created a string called "character" which is a simple capital "O" that acts as the counter for how many times a number has been hit. I then made a string for each value for each player that would house and then increase the number of "O"'s present on the score board next to its respective value. Now that these "O"'s appear to show whether or not the number is "locked out", it becomes much easier to see which numbers are full and how close they are to being full.

Once both players have locked out all of their numbers, the player with the higher total score is the victor. This will print out a victory message for either player 1 or 2 depending on the winner. This being the bulk of the program, I also decided to add a method that essentially acts as a "start menu" so that when the program first begins, the player will have to press Enter to actually start. This was done by simply creating a method called "pressEnterToContinue" which used the Scanner .nextLine() function to continue onto the next line after anything has been entered.