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CS 171

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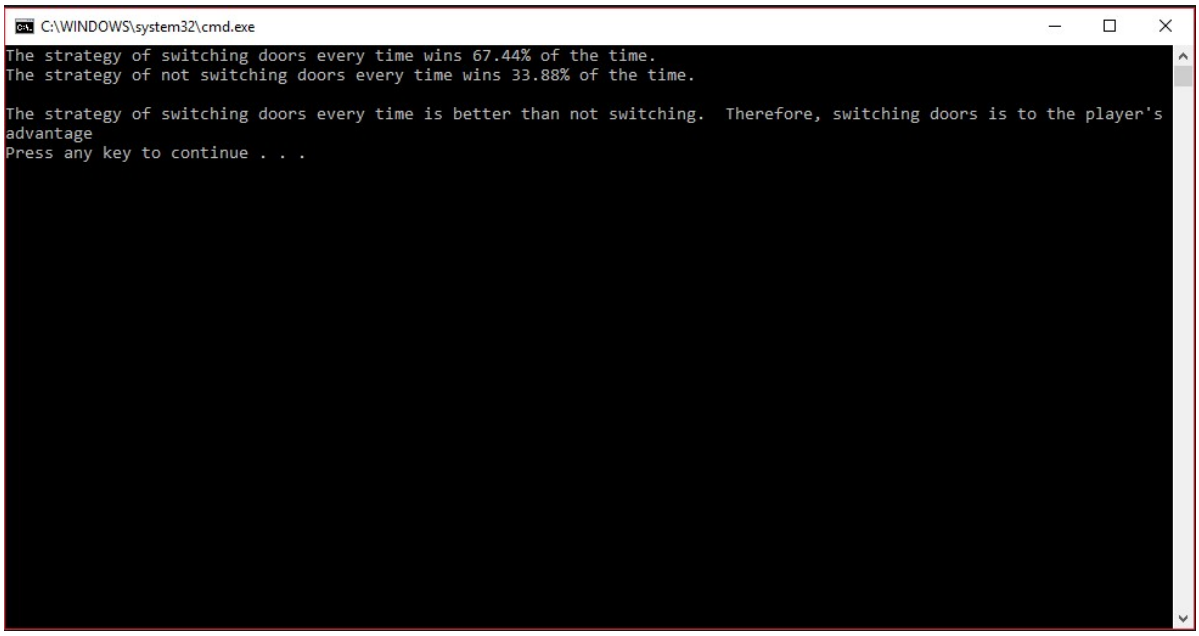
Monty Hall Problem

- User Manual
  - As soon as one compiles and runs the program, the user won't be required to enter anything whatsoever. The program will do some iterative calculations in the background and print out the results. The most likely statements to be printed out is:



- System Manual
  - There are 4 functions that I defined, and a main (as usual). 2 of those functions are the "helper" functions, that are exclusive to my code only.
  - The first function created is **switchDoor()**:
    - It returns nothing. It's a void function.
    - It takes 2 integer types argument, one of which is called by reference, this is the door chosen by player.
    - There are no variables defined whatsoever.
    - There is only one switch case and conditional statements in the definition of the function.
    - The parameter of player's door is passed in the switch. Then there are certain cases to it;
      - In all the cases, it checks using conditionals, the door chosen by Monty, then it assigns the other door value to player's door.

- The next function created is **door()**:
  - It returns nothing. It's a void function.
  - It takes a total of 5 arguments. 1 integer type, 4 character type, out of those characters 1 is called by reference, this is the door chosen by player
  - There are no variables defined whatsoever.
  - The only function/method used in the definition of this function is switch case.
    - The integer parameter, which is the player's door is passed in the switch. Then there are certain cases to it.
    - In all the cases it assigns character playee's door to one of the doors. For example:
      - If player's door(integer) is 1, then player's door(character) is assigned the value of door 1. And so on for 2 and 3.
- Then there is **main()**:
  - The for loops runs 10000 times, out which 5000 times the player switches the door and the other 5000 times it doesn't.
  - Then it calculates the percentage times the player's door turns out to bee the one with the car.