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File: main.cpp

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Purpose: Pseudo code for roulette game \*/

//System Libraries //Input Output library //Random numbers //Time to set the Seed //String Functioning //Math Library //Precision library //Read Write Library //File stream library //Format Library

//Vector Library

//Namespace std of system libraries

//User Libraries //Global Constants

//Such as PI, Vc, -> Math/Science values

//as well as conversions from system of units to another //Percentage Conversion

//Function Prototypes

//Main -> Executable code begins here!!!

//Declare Variables and Initialize

//int for guesses, floats for ratios //char and string for choices

//Set Constants for limits, Set size

//Counters/indicators initialize for wins, loss, and $

//Intialize arrays and set arrays for valid accounts and names

//Intro

//Instantiate and Open files for header //Retrieve and Display Header

//Close file

//Input Account Number

//Linear Search function

//Input name

//Binary Search Function

//Bank and Choice

//Enter Bank Amount

//Call Bonus Function

//Choose game

//Play By Color

//Ask User to Bet on Black or Red //Validate Input

//Play by Do While Looping

//Call Random Function

//Compare Choice

//If Win

//Display Winning Message

//Add Bet to Bank

//Add 1 to Win Tally

//Add 1 to Games Tally

//Display Bank Total

//Else Lose

//Display Losing Message

//Subtract Bet From Bank

//Add 1 to Loss Tally

//Add 1 to Games Tally

//Display Bank Total

//If Money < 0

//Display Bankrupt Message

//Break! End Game

//Play Another Game.

//Validate Input

//Do While Loop Ends Game With -1

//Play By Number

//Ask User to How Many Plays on This Spin

//Validate Input

//Play by Do While Looping

//Ask for Number of Plays on This Spin

/Validate Input

//Call Random Number Function.

//Add random number to vector

//Initiate For Loop for Number Guess

//Choose Number

//Validate Input

//Compare Choice To Random Number

//If Win

//Display Win Message

//Bet\*40 is win. Add to Bank

//Add $40 to Bank

//Add 1 to Play Tally

//Add 1 to Win

//Display Bank Total

//Else Lose

//Display Loss Message

//Subtract Bet from Bank

//Add 1 To Loss Tally

//Add 1 to Play Tally

//If Money < 0

//Display Bankrupt Message

//Break! End Game

//Display Winning Number

//Do While Loop Ends With -1 Entry

//Ratios

//Algebraic and Static Expressions for Answer

//Output Data

//Set Precision for floats

//Display Win Total

//Display Loss Total

//Ask For Ratio Display

//Switch Menu for Ratio Display

//W Displays Win vs Plays

//L Displays Loss vs Plays

//O Displays Win Over Loss

//T Displays All Three

//Display Ending Bank Balance

//Member List

//Ask if they want to see member list

//If Yes

//Call Member List Function

//Display Member List

//If No

//Alright Meesage

//Winner List

//Ask if they want to see winning number list

//If yes

//Open Output File

//For Loop While Index is < plays

//Display Vector showWinner[index]

//Output number to output file

//Index++

//Close outputFile

//If No

//Alright Message

//Table

//Ask if they want to create a table

//If Yes

//Call table Function

//Display Data

//If No

//Alright Message

//Write File

//Open Output File

//Output Win Total In Output File

//Output Loss Total In Output File

//Output Win Ratio In Output File

//Output Loss Ratio In Output File

//Output Win/Loss In Output File

//Output End Balance In Output File

//Close File

//Exit!!!

//Functions

//Random Number for Colors Function

//Set Seed

//Randomize Between Black (1) and Red (2)

//Return Results

//Random Number for Numbers Function

//Set Seed

//Randomize Numbers Between 0 and 37

//Return Results

//Linear Search for Account Numbers

//Pull Valid Account Array, Size, And Account Inputed

//Declare Variables

//Search Array and Compare to Input

//Return Results

//Sort Names Function

//Pull Names Array and Size

//Declare Values

//Sort Names

//Return Array

//Bank Bonus Function

//Pull Bank

//Add 5

//Return Value

//Show List Parallel Function

//Declare Array Size

//Declare Names Array and Account Number Array

//Display List

//2d Array To Create Table

//Declare rows, colums for size

//Initiate Array for Table

//Input Id, Starting Amount, Bonus, End Total

//Calculate Missing Parts

//Create Table