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Final Project

<High or Low Gambling>

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Introduction:

Title: High or Low Gambling

High or Low is a card game where the player must play the odds in order to double their earnings or lose it all. The game starts with a two dollar bet that is added to the pot from the player’s earnings. From there, the player has to guess if their card will be higher or lower than the one the dealer has shown. If they guess higher or lower and are correct, they can either add that money to their earnings, add it to the next pot, or check out.

If the player chooses to double the pot, the price of the bet also doubles. This is when the player has the highest chance to earn the most money and simultaneously lose the game. If the pot ever becomes bigger than the available funds of the player and they guess wrong, they automatically lose the game. However, if they guess right they are free to check out (output their winnings in a .dat file) or add it to their existing funds and continue playing with a reset pot of two dollars. If the dealer card is the same value as the player it counts as a win.

This is a game of high risk high reward and to see how much money you can get without going broke.

Summary:

Project size: 474 lines

19 variables used

This program uses all the concepts specified in the check off sheet made in class and makes use of various loops and nesting methods. The project took about 18 hours spanning over 3 days. Though I had a more elaborate game in mind, it proved to be easier to improve on simpler ones in order to meet the deadline.

Gaddis 8th edition was often used as a reference and cleared up syntax errors that occurred often. I only used concepts gone over in class in an attempt to stick to the criteria.

Description:

The point of this program is program is to demonstrate the concepts covered in class as a game.

Pseudo Code:

*Access system library*

*User libraries*

*Input function prototypes*

*Enter main*

*Declare variables*

*Open files*

*Start program*

*Generate random card values*

*Assign face values to card values*

*Bubble sort random numbers*

*Guess if high or low*

*Fill game array*

*Bring in player amount from file*

*Guess high*

*Player card > dealer = win*

*Player card < dealer = lose*

*Guess low*

*Player card < dealer = win*

*Player card > dealer = lose*

*Else safe*

*Error message(user validation)*

*If player amount < 0*

*Game over*

*Display stats*

Check list:

Ch.2 cout- ………………………………………………………….……..lines 70-82

Libraries-…………………………………………………….….….lines 9-15

Variables-………………………………………………………….lines 37-56

Identifiers-…………………………………………………….…lines 37-56

Integers-…………………………………………………………..lines 47

Character-…………………………………………………………lines 43,56

String-……………………………………………………………….lines 40,55

Float-………………………………………………………………..lines 38,39,49,171

Bool-…………………………………………………………………lines 50, 51,218,213

Characters less than 7 characters-………………………...lines 37-56

Arithmetic operator-………………………………………….lines 388,393,406

Comments 20%-…………………………………………………Throughout project

Ch.3 cin-……………………………………………………………………..lines 385,233

Math Expression-………………………………………………..lines 388,406

Type Cast-……………………………………………………………..line 141

Formatting output-…………………………………………………line 136

Strings-……………………………………………………………lines 265,319

Math Library- ………………………………………………………….line2 10, 388

Ch.4 Relational Operator-………………………………………………lines 161,169,184

If –…………………………………………………………………………..lines 241, 225

If-else- ………………………………………………………………..…..lines 161,169,

Nesting-……………………………………………………………….....lines 190-212

If-else-if…………………………………………………………………..lines 161-169

Logical operators-……………………………………………………..lines 154, 184

Validating user Op.-……………………………………………..lines 215

Conditional Op.-……………………………………………………lines 131,132

Switch-………………………………………………………….…………line 385

Ch.5 Increment/Decrement-……………………………………………line 125,

While-…………………………………………..…………………………line 214

Do-while-…………………………………………………………………..lines 88-238

For loop-…………………………………………………………………….lines 119,127

Files input/Output-………………………………………….lines 138,402,61-62,255-256

Ch.6 Prototypes-……………………………………………………………lines 26-31

Pass by value- …………………………………………………………lines 28, 372,191

Return Value-…………………………………………………………line 367, 383, 191,

Boolean return-…………………………………………………………..line 383

Static Local Variable-……………………………………..................line 373

Default argument-…………………………………………………………..lines 26, 27

Reference Var.-………………………………………………………………lines 28, 59

Overload functions-…………………………………………………………..lines 29,30

Ch.7 Array initialization-……………………………………………………………line 55

Parallel array-…………………………………………………………………..line 417

Array in function argument-………………………………………………line 414,424

2D array-……………………………………………………………………………lines 96-100

2D array as function-………………………………………………………….lines 30, 424

Vector-……………………………………………………………………………….line 48, 103-105

Ch.8 Search Linear/binary- …………………………………………………………lines 252,234,460

Sorting Bubble/selection-………………………………………………………lines 443,59

Applied to vectors-…………………………………………………………………lines 252,234