Project 1

\<Calculation Games>

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Introduction

Title: Calculation games

  The calculation games consist of three games to illustrate users' abilities in calculating as well as mathematics. Users could choose which game they want to play by press respected number as the menu describes:

- Game 1: Program will give user two random numbers and he or she has to find the sum of them. Every times a correct answer is given, user gets 1 point. He or she would start at level 1 and try to answer as much as he or she can go to the next level. The higher the level is, the more complicated problem will be issued. The game will automatically stop once user has an incorrect answer or user want to exit by press the button 'y'
- Game 2: A double version of game 1. Two player will play with each other until one of them has a wrong answer. The program will output each player's score and determine who is winner.
- Game 3: A random number from 1-99 will be secretly assigned. User has 7 chances to guess. After each guess, the program would tell the gamer that his or her number is whether greater or smaller than secret number. Once the user get the right guess, the game automatically stops.

Summary

Project size: 230 lines

Number of variables: about 25

Number of method: 4

I tried to add a timer to manage the time of user giving an answer as a restriction. Unfortunately, I could handle that type in C++while it was not discussed in class either. The program took me about two days. I guess it is kind of simple program because of its simple idea.

Major Variables

Name	Type	Description	Location
choice	integer	Choose which game to play	main()
a	integer	Random seed	game1()
b	integer	Random seed	game1()
answer	integer	User's answer	game1()
score	integer	User's score	game1()
name	string	User's name	game1()
level	integer	User's level	game1()
myfile	fstream	Write on a file	game1()
player1	string	Name of player 1	game2()
player2	string	Name of player 2	game2()
number1	integer	Random seed	game2()
number2	integer	Random seed	game2()
seed1	integer	Random seed	game2()
seed2	integer	Random seed	game2()

Name	Type	Description	Location
answer1	integer	player1's answer	game2()
answer2	integer	Player2's answer	game2()
score1	integer	player1's score	game2()
score2	integer	player2's score	game2()
sum1	integer	Sum of random seed	game2()
sum2	integer	Sum of random seed	game2()
number	integer	Secret number	guess()
chance	integer	Number of time user guess	guess()
guess	integer	The number user guesses	guess()

Referance

1. Textbook
2. Cplusplus.com