Project 1

<Welcome to Casino>

CSC-5 48102

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Introduction Title: Welcome to Casino

This is a casino game. When you choose to play High-Low, computer will give a win number. Then the user need to guess the will number. If the user put money more than 1000 or do not multiple of ten, the user should enter the money again. He or she can guess the win number on the basis of the money divide the ten. If the guess time bigger than 5, he or she can only guess 5 times. Then the user can choose to run the game again or quit it. If the user gets the balance to 0, he or she will be required to leave the game. However, if the user guesses the win number correctly, he or she will get ten times money.

Summary

Project size: 200 lines I used if, if-else, switch, for, wile, do-while loops to complete this program. I speeded three days writing this program and sometimes it can not run make me to

change and fix the program many times. This is my first time write a program and I never touch this knowledge before this

class. It is a little hard for me, but I complete it finally.

Description

The main point is how much money the user put and how many guess times he or

she gets. Then it can decides the balance or lost how much money.

Flow Chart

https://www.gliffy.com/go/publish/11299071

Program

```
/*
 * File:    main
 * Author: Yanwan Ye
 *
 * Created on October 27, 2016, 9:44 AM
 * Purpose: This is a casino game to put money and guess the win number.
 */

#include <iostream>
#include <cstdlib>
#include <ctime>

using namespace std;
int main()
{
    //Set the random number seed
    srand(static_cast<unsigned int>(time(0)));

    int winNumber;//Win number
    int guessNumber;//Guess number
    int betMoney;//Bet money
    float totalBet=0;//Total bet money
    float balance = 0; //Account balance
    char check = 'Y';//Play another run
    float winToday;//Total win today
    int choice=0;//Choice to play or leave
    int nGuess;//Guess times

    //Display the menu
    cout << "Welcome to the Casino!" << endl<<endl;
    cout << "Please select an option from the following list." << endl;
    cout << "1. Play High-Low" << endl;
    cout << "2. Leave the Casino" << endl;
    cin>>choice;

    //Make the choice possiable
    while(choice != 1&&choice != 2)
```

```cpp
        {
            cout<<"Bad choice! Please re-enter: ";
            cin>>choice;
        }
        cout<<endl;

        //Process the user's choice
        while(check =='Y'||check =='y')
        {
            //Respond to the user's menu slection
            switch (choice)
            {
                case 1:
                    cout << "Welcome to High-Low. Have fun!" << endl;
                    break;
                case 2:
                    cout<<"Hope to see you again, have a good day!"<<endl;
                    break;
            }

            //Make a leave choice
            if(choice == 2)
                return 0;

            //Run the game
            else
            {
                //Any number become a win number
                winNumber = rand() % 100 + 1;
                cout<<"(Win number: "<<winNumber<<" )"<<endl<<endl;

                //Get the bet money
                cout<<"How much money you would like to put (enter an integral
multiple of ten): $";
                cin>>betMoney;

                //Make the money is multiple of ten and less than 1000
                while (((betMoney %10) !=0) || (betMoney >1000))
                {
```

```cpp
                cout<<"Please re-enter how much money you would like to put
(enter an integral multiple of ten): $";
                cin>>betMoney;
        }

        //Get the guess times
        nGuess=betMoney/10;

        //Make the guess time less than 5 times
        if (nGuess <= 3)
                cout<<"You  get  "<<nGuess<<"  times  to  guess.  Good  luck!"
<<endl<<endl;
        else
                cout<<"You get 5 times to guess. Good luck!" <<endl<<endl;


        balance=balance+betMoney;//Account balance
        totalBet = totalBet + betMoney;//Total bet money


        //Make the user can guess 1 to 31 times
        if (nGuess<=3)
                for (int i=1; i<=nGuess; i++)
                {

                        //Get a guess number
                        cout<<"Fun time! Enter the number you would like to guess(1
to 100): ";

                        cin>>guessNumber;


                        //Display the balance and win the game
                        if(guessNumber == winNumber)
                        {
                                balance = betMoney*100 + balance;
                                cout<<"Congratulation!  You  win!  The  number  is
"<<winNumber<<". Your balance is $"<<balance<<". "<<endl;
                                return 0;
                        }
```

```cpp
            //Display the user lose the betmoney
            else
            {
                cout<<"Sorry, You lost $"<<betMoney<<"..."<<endl;
                balance = balance - betMoney/nGuess;
                cout<<"Now your balance is: "<<balance<<endl;
                cout<<endl;

            }


        }


    //Make the user can guess 5 times
    if (nGuess>3)
        for (int i=1; i<=5; i++)
        {

            //Get a guess number
            cout<<"Fun time! Enter the number you would like to guess(1
to 100): ";
            cin>>guessNumber;


            //Display the balance and win the game
            if(guessNumber == winNumber)
            {
                balance = betMoney*100 + balance;
                cout<<endl;
                cout<<"Congratulation! You win! The number is
"<<winNumber<<". Your balance is $"<<balance<<". "<<endl;
                return 0;
            }


            //Display the user lose the betmoney
```

```cpp
                else
                {
                        cout<<"Sorry, You lost $"<<betMoney<<"..."<<endl;
                        balance = balance - betMoney/nGuess;
                        cout<<"Now your balance is: "<<balance<<endl;
                        cout<<endl;
                }

            }
        }


        //Display another run
        do
        {
            cout<<endl;
            cout<<"Would you like to play another round?(Y/N): ";
            cin>>check;
        }while(check!='N' && check!='Y' && check!='n' && check!='y');

    };


    //Display the balance to 0 and leave the game
    if(balance==0)
    {
        cout<<"You balance is $0. Sorry, you lost all your money(($"<<totalBet<<").
Withdraw more money from ATM at the corner on your left and come back."<<endl;
    }


    //Display the win money today
    else if(balance-totalBet>0)
        {
            winToday=totalBet-balance;
            cout<<"Nice Job! You win $"<<winToday<<". Spend all the money
and have fun!"<<endl;
        }
```

```cpp
        //Dispaly the leave
        else
                cout<<"Hope to see you again, have a good day!"<<endl;



    return 0;
    }
```