

# 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, while, 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 decide the balance or lost how much money.

## **FlowChart**

<https://www.gliffy.com/go/html5/11299071?%3D=>

## **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 possible
```

```
while(choice != 1&&choice != 2)
```

```

{

    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))

    {

        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;
}


//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

        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;

    }


//Dispaly the leave

else

    cout<<"Hope to see you again, have a good day!"<<endl;


return 0;

}
```