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Specifications

**Aim**

This project is meant to simulate a casino system where a user is allowed to play a range of games and gamble their luck in the anticipation of leaving the casino with more money than they came in with. The casino games that will be simulated involves the following: Guess the number Game, Craps and Roulette.

**Key Feature:**

A menu is shown at the start of the code where the user choses the game they’ll like to gamble on or if they want to see the history of players earnings.

Text

Description automatically generated

Each game chosen first shows the set of rules to avoid a user making mistakes in choosing a game they aren’t familiar with.

The user details are saved in a class this makes saving the player details faster when calling it on each game.

The player details that are saved includes their; Name, starting amount, current balance and the bet amount for each game they play.

Text

Description automatically generated

The final key feature I will be pointing out is the file handling, the details of every player that has played the casino game will be saved. The users name, starting amount and the amount they ended up with is saved unto a file which can be called at the start menu for anyone who is interested in seeing that.

Text

Description automatically generated

This list is updated whenever anyone plays a game.

Design

My project needed only one class which was used to save the users details all through the game. The class diagram is showcased below.

Diagram

Description automatically generated

A uml case diagram is also used to show the choices a user has when playing, this is as shown

Diagram

Description automatically generated

Testing

|  |  |  |
| --- | --- | --- |
| TESTING Scenarios | Test Method | Success/fail |
| If input is wrong | Enters wrong input at different places | In some instance it gives in valid response and asks you to enter again while in some I made it close down the whole game |
| If there is a case error | Input letters with upper or lower case | The code is set to allow both the upper and lower case of every letter required |
| Loads game | Try playing any of the games | All games work to expectations |
| Save game details | Try playing a new game after finishing closing up the code and checking the detail history | All games played on the program is saved into a file |

Evaluation

In my project there were a couple of features I would have love to add such as playing multiple games without having to restart the code. This feature when I tried it worked for the roulette and craps but didn’t seem to work for the guessing game which made me have to remove the feature from my work.

My file handling turned out well which was a problem for me last semester, but I managed to do it successfully which is a big improvement for me.

After this project I would still take my time to update this project to my specification as I take my time to master my knowledge in C++, I’ll be adding more games and more features such as multiplayer which will save two players playing at the same time and maybe eventually make it graphic based.