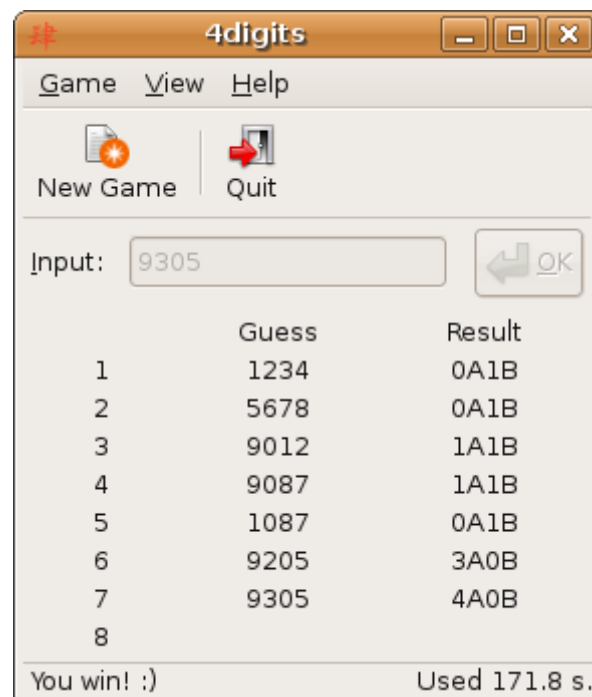


Digital guessing is an ancient password decipher game for two players. The rules of the game are as follows:

1. The game starts, the computer randomly generates four digits. The digits must be all different and less than ten.
2. Players enter four digits he speculated.
3. Players will count filed with the computer-generated comparison, the results displayed as "**A*****B**". A represents the position of the correct number is correct, B represents the number correct but the location is not correct, such as: "2A1B" means you have two numbers in the correct position and the value is correct, in addition, you guessed 1 number has correct value, but wrong place.
4. Two players guess the digits in turn. The player, who get the result "4A0B" firstly, wins the game.



In this project, you need to complete the game using OOP techniques. The player could be either human or computer. The following classes may be designed and implemented in your program.

class **game**: to manage the game.

class **digits**: to keep the four digits and define the rules of the game. Try to prevent the codes in class **player** to get the correct digits directly.

class **player**: there should be two members of player in the class **game**, a virtual function in the class design is suggested.

class **playerHuman**: derived from base class **player**, which is designed for human player.

class **playerComputer**, which is derived from base class **player**, which is designed for computer player.

The grade of the project is based on the correction of your program, the quality of the report and the friendliness of the user interface. The better AI implementation would have a bonus.