Hypermedia project hand-in
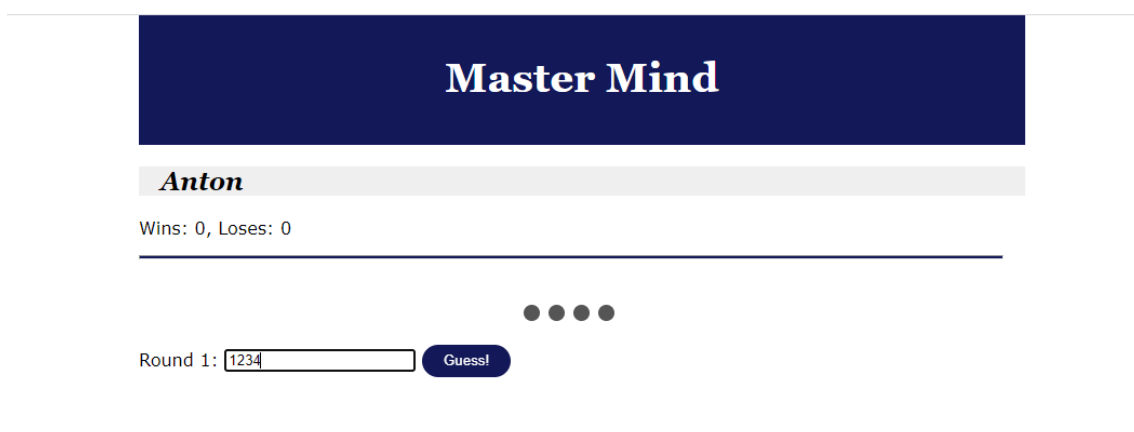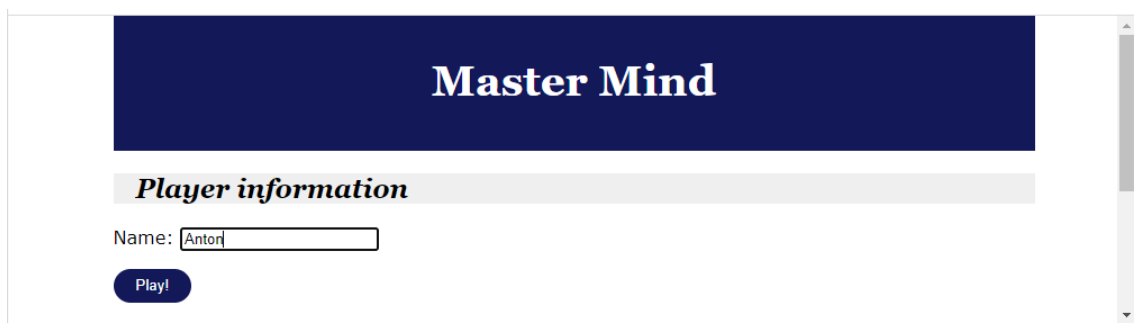
Part 2: Create a web game: Master Mind

1   Project Goals

In this project, you will have to develop a simple web game. This game will be the
Master Mind (or a simplified version of it). This game is a code-breaking game for two
players, where the *codemaker* chooses a pattern and of four elements code and the
codebreaker tries to guess the pattern. For each codebreaker's guess, the codemaker
provides feedback by saying how many elements are in the correct in the right position
and how many in the wrong position. From this information, the codebreaker needs to
break the code before a given number of guesses.

For this project, you will have to implement a version of this game where the computer
will create the code by randomly generate a 4-digit number without any repetition. The
user will have the codebreaker's role and will have to break the 4-digit code. At each
guess, the computer will inform on how many digits the user has found (and if they are
on the correct position or not). The user will have ten guesses to find the code, if not,
the user will lose the game.

Next, some snapshots of a possible implementation are shown. It's not assumed to do
exactly the same interface, but it's a suggestion:

Master Mind

Anton

Wins: 0, Loses: 0

● ● ● ●
1 2 3 4 ✅1 🟠1

Round 2: [   ] Guess!

Master Mind

Anton

Wins: 0, Loses: 0

● ● ● ●
1 2 3 4 ✅1 🟠1
5 6 7 8 ✅1 🟠0
2 0 7 4 ✅0 🟠0
9 1 3 8 ✅0 🟠3

Round 5: [   ] Guess!

127.0.0.1:3500 did

Congratulations Anton!!!!

D'acord

Anton

Wins: 0, Loses: 0

● ● ● ●
1 2 3 4 ✅1 🟠1
5 6 7 8 ✅1 🟠0
2 0 7 4 ✅0 🟠0
9 1 3 8 ✅0 🟠3

Round 5: [1693] Guess!

Master Mind

Anton

Wins: 1, Loses: 0

● ● ● ●

Round 1: [   ] **Guess!**

Anton, you have lost!

D'acord

Anton

Wins: 1, Loses: 0

● ● ● ●

```
1 2 3 4 ✅ 0 ☑ 2
6 7 8 9 ✅ 1 ☑ 0
5 3 2 9 ✅ 1 ☑ 1
1 7 5 8 ☑ 0 ☑ 1
3 1 8 7 ☑ 1 ☑ 1
4 2 4 2 ✅ 0 ☑ 1
2 9 8 7 ☑ 1 ☑ 1
5 7 3 2 ☑ 1 ☑ 1
9 6 3 2 ☑ 1 ☑ 1
```

Round 10: [3576] **Guess!**

Master Mind

Anton

Wins: 1, Loses: 1

● ● ● ●

Round 1: [   ] **Guess!**

2 Documentation

The final submission will be consisting a zip file on Moodle with the following parts:

- **README** file with any information related to the implementation
- **Website code** (HTML, CSS, JavaScript, and image files)

3 General considerations:

- This project should be developed in groups of **two people**.
- You can use other tools such as Bootstrap or other frameworks. Mention it on the README file and justify why you have used them.
- Try to be creative in your proposal.
- Code clarity and correctness will be evaluated.