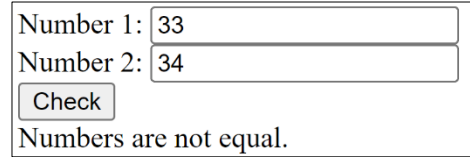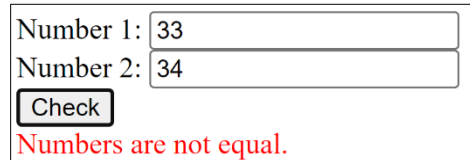# Worksheet 3: Conditionals

Exercice 1. Create an HTML page as depicted in the Screenshot. When the user clicks on the button, the website shall tell if the two entered numbers are equal or not.
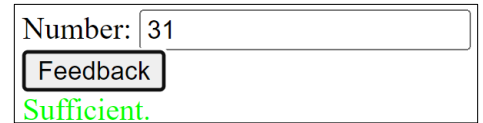
Number 1: 33
Number 2: 34
Check
Numbers are not equal.

Exercice 2. Create a copy of your previous solution. Extend it in such a way, so that when the numbers are equal the text is shown in green colour whereas when they are not equal the text is shown in red colour.

Number 1: 33
Number 2: 34
Check
Numbers are not equal.

Exercice 3. Create a webpage where the user can input a number. Depending whether the number is positive, negative or neutral, a corresponding message is shown. Use the colour green for positive, red for negative and grey for neutral numbers.

Number: 12
Check
Positive.

Exercice 4. In this task the user shall be able to enter his grade between 01 and 60. Depending on the grade, he shall get feedback. All sufficient grades shall be shown in green colour whereas insufficient grades shall be displayed in red colour. The different feedback criterions are listed below:
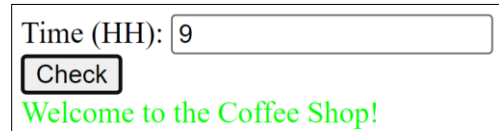
Number: 31
Feedback
Sufficient.

Grade	Feedback
01-09	Very bad.
10-19	Bad.
20-29	Insufficient.
30-37	Sufficient.
38-41	Satisfying.
42-47	Good.
48-52	Very good.
53-60	Excellent.
< 01 or > 60	Invalid grade.

Does the order of the conditionals play a role? Explain.
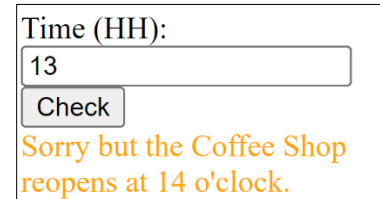
Exercice 5. Create a copy of your previous solution. Rewrite the exercise using logical operators.

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Exercice 6.   Create a webpage where the user can enter a time in hours when he wants to visit a coffee shop. The coffee shop is open between 8 and 17 o'clock. If the user wants to visit the shop during working hours a green welcome message shall be shown. Otherwise, a red error message shall be displayed.
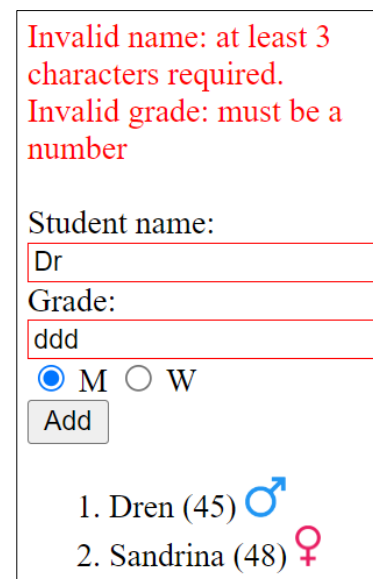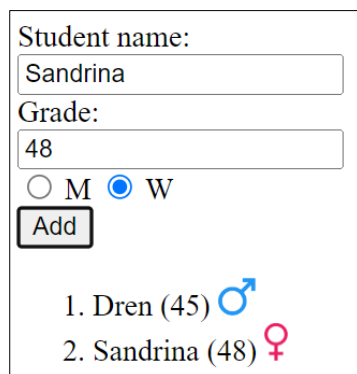
Time (HH): 9
Check
Welcome to the Coffee Shop!

Exercice 7.   Create a copy of your previous solution. The coffee shop takes a break between 12 and 14 o'clock. Expand the code so that a suitable message in orange colours appears if a visitor wants to come by at this time. Is the order of the conditionals important? Explain.

Time (HH):
13
Check
Sorry but the Coffee Shop reopens at 14 o'clock.

Exercice 8.   Create a webpage where the user can add students with their grade and gender into an ordered list. The following conditions must be true so that the information can be added to the list:

- o   Both input fields must not be empty
- o   The student name must contain at least three characters
- o   The grade must be a real number
- o   The grade must be between 01 and 60

If all conditions are met, the student with the grade is being added to the list. Otherwise appropriate red error messages shall be shown as well as the concerning borders of the input fields shall be displayed in red. Use a picture for displaying the gender. The first radio button shall be checked by default..

Student name:
Sandrina
Grade:
48
○ M ● W
Add

1. Dren (45) ♂
2. Sandrina (48) ♀

Invalid name: at least 3 characters required.
Invalid grade: must be a number

Student name:
Dr
Grade:
ddd
● M ○ W
Add

1. Dren (45) ♂
2. Sandrina (48) ♀

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Exercice 9.   Copy the solution of the TicTacToe Layout from Moodle. In this exercise we will add some dynamics to the static layout. When the user clicks on a cell, then this cell is to be filled alternately with X or O if the cell is free. You can assume that X always starts by default. In order not to invest too much time in it a Game Over must not be realized. You are welcome to do this in your spare time!

Hint: Use the following CSS code to horizontally and vertically align the content of a grid-item cell:

```
display: flex;
justify-content: center;
align-items: center;
```


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