

# Homework

In this homework we are going to extend the previously created Todo list application (if you don't have the Todo list app you can download the sample solution from the link in the previous lesson).

## Task

- Extend the todo list items with a difficulty field (integer between 1-5)
- Display this difficulty value and index of the element in the list
- The user needs to be able to create a new todo list item
  - Create two new input
    - A text input for the name
    - A number input for the difficulty
      - Take a note that a number input will return its value as a string, so we have to convert it to a number
  - Save the list item on a button click and display the updated list
- The user needs to be able to order (ascending and descending) the list by difficulty with a button click
- Display the most difficult item's name and difficulty
- The user needs to be able to delete a todo item from the list
- Format the displayed content with CSS (define at least 5 new CSS selectors and 10 properties — you can even try to copy the example solution)

## Example output

### Todo list

☒ Clean bathroom - 2

☒ Laundry - 4

☐ Dishes - 3

Order:

**Most difficult item:** Laundry (4)

**Completed:** 67%

## Extra exercise

- Create a validation which allows only an integer number between 1-5 in the number input

## Hint for useful JavaScript functions

- It's possible to convert a string into a number with the [Number](#) method
- You can sort an array with the [sort](#) array function
- In order to find the most difficult item you can combine 2 function:
  - The [map](#) array function can convert every item of the array into a new structure
  - The [Math.max](#) expects a series of numbers and returns with the highest value amongst them
    - Take a note that the map function returns an array, but the max function accept a series of number parameters, so we could use the [spread](#) operator here
- The easiest way to [find](#) an element in an array
- You can remove an element from the array with the [splice](#) function