

Trainer guide  
Examples and exercises  
**JS-6 – Array filter()**

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## JS-6a | Exercise: Array filter()

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This exercise gives learners practice on using the Array filter() method in JavaScript.

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- In this exercise, you will get the chance to practice using the Array filter() method.

### Demo

- Let's take a look at the first exercise.
- We have an array of strings called "names", and the task is to create a new array, based on "names", that contains only the short names (i.e. the ones that are three or fewer characters in length).
- *Replace the line `const shortNames = []` with the following:*  
`const shortNames = names.filter()`
  - We always call the filter() method on an existing array.
- The filter() method takes in a callback function as an argument.
  - This function will run for each element in the array. If that function returns true, then that element in the array will be kept. But if the function returns false, then that element will be discarded.
  - So, we want this function to inspect each name and return either true or false depending on its length.
- Let's write this callback function as an arrow function.
  - `const shortNames = names.filter((name) => {})`
  - The variable "name" represents the element of the array that is checked on each iteration – so, this function will run once with the value of "name" being equal to "Tom", then again with the value "Annabelle", then "Montgomery", etc.
  - Since we now have access to the individual names, we can check the length of each one to determine whether or not to filter it out.

```
const shortNames = names.filter((name) => {  
  if (name.length <= 3) {  
    return true;  
  } else {  
    return false;  
  }  
})
```

- If the name's length is less than or equal to three, the function returns true, so that name is kept in the new array.

- Otherwise, the function returns false, so the name is discarded.
- If we view the console, we can see that only the short names (Tom, Bob and Ada) are in the new array.
- We can express this more concisely:

```
const shortNames = names.filter((name) => {  
  return name.length <= 3  
}))
```

- Or, because our callback function only contains one line that simply returns a value, we can rewrite it with an implied return:

```
const shortNames = names.filter((name) => name.length <= 3)
```

## Exercise

- The next task is to take this array of dishes, and use the Array filter() method to create a new array that contains only the Italian dishes.

*Solve the exercise live before moving on.*

[Solution reference](#)