

# JavaScript Arrow Functions: {} vs ()

Understanding Implicit and Explicit Returns in JavaScript

# 1. Using {} (Curly Braces) -> Explicit Return

If you use {} in an arrow function, you must explicitly use 'return'.

```
const getNumber = () => {  
  return 5;  
};  
console.log(getNumber()); // Output: 5
```

## 2. Using () (Parentheses) -> Implicit Return

If you use () instead of {}, the function implicitly returns the result.

```
const getNumber = () => (5);  
console.log(getNumber()); // Output: 5
```

# Applying This to filter()

Using filter(): The function implicitly returns true or false.

```
setTasks(tasks.filter((task) => task.id !== taskId));
```

# Using {} with filter()

Explicit return version of filter().

```
setTasks(tasks.filter((task) => {  
    return task.id !== taskId;  
})));
```

# Applying This to map()

Using map() to toggle task completion.

```
setTasks(  
  tasks.map((task) =>  
    task.id === taskId ? { ...task, completed: !task.completed } : task  
  )  
);
```

# Using {} with map()

Explicit return version of map().

```
setTasks(  
  tasks.map((task) => {  
    if (task.id === taskId) {  
      return { ...task, completed: !task.completed };  
    } else {  
      return task;  
    }  
  })  
);
```

# When to Use {} vs. ()?

Scenario	Use {} (Explicit Return)	Use () (Implicit Return)
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Multi-line functions	Yes	No
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One-line expressions	Yes (with return)	Yes (shorter & cleaner)
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Returning an object {}	Yes	Must wrap in ()
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# Correct & Incorrect Examples

Correct: Wrap object in ()

Incorrect: JavaScript thinks it's a function block.

```
Correct: const getTask = () => ({ id: 1, text: 'Task' });
```

```
Incorrect: const getTask = () => { id: 1, text: 'Task' }; // ERROR
```

# Summary

- Use {} when multiple statements are needed.
- Use () for single-line expressions.
- Wrap {} inside () when returning an object.

# Thank You!

Happy Coding!