Automatic Semicolon Insertion (ASI)
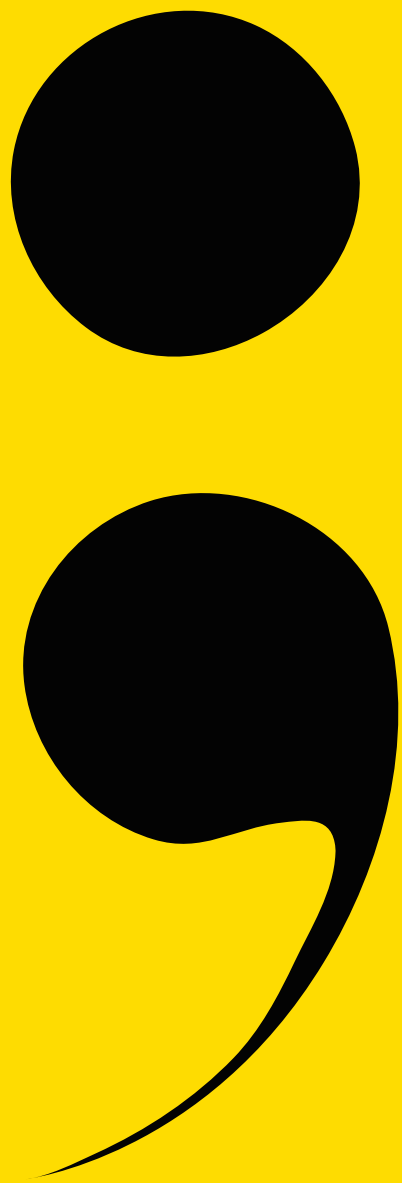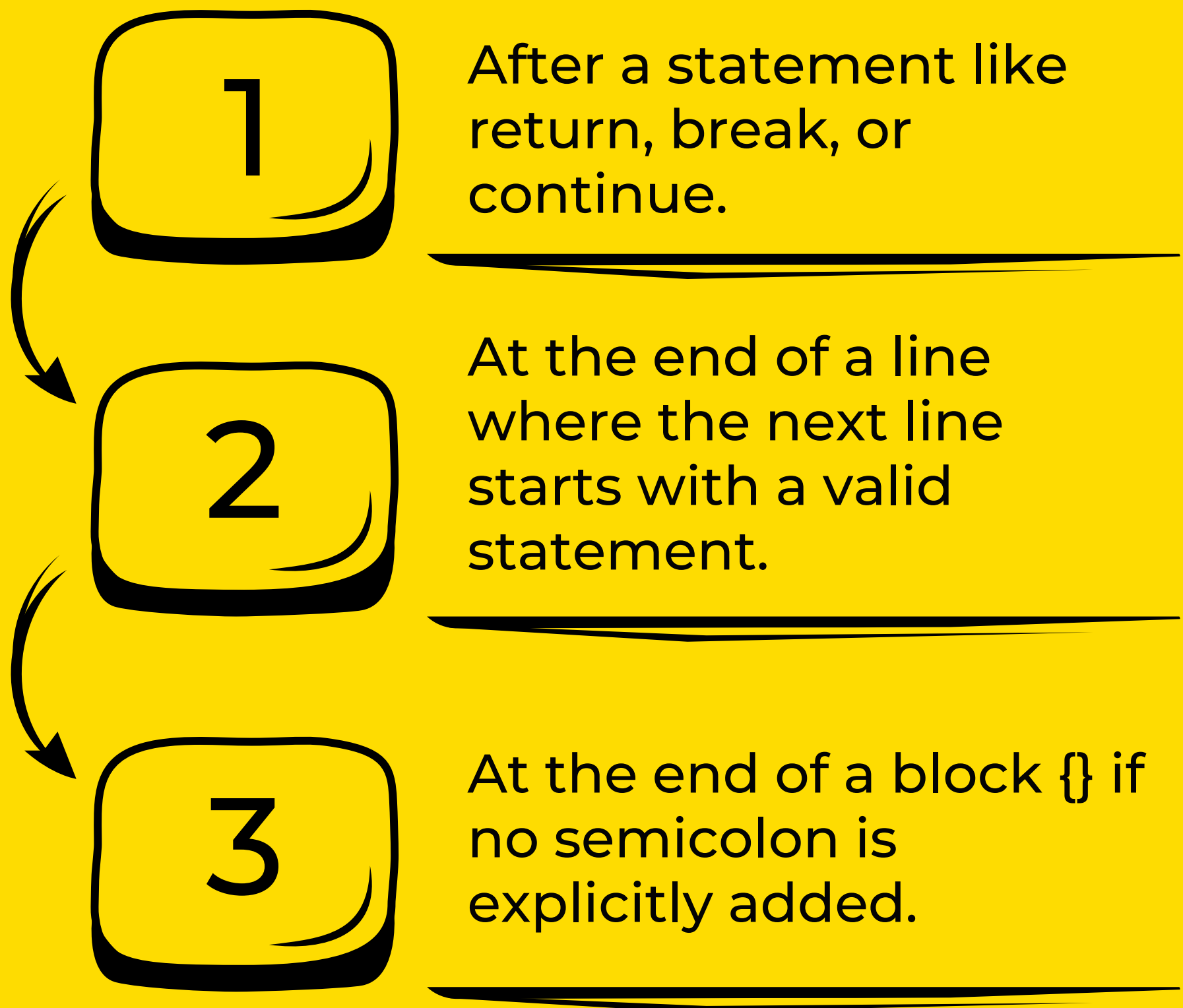
in JavaScript

[Don't Miss It]

What is ASI ?

- ASI is a feature in JavaScript where the interpreter automatically inserts semicolons (;) at the end of certain lines of code.

- This helps prevent syntax errors in cases where a semicolon is missing.

```
01101100101
01101010101
```

When Does ASI Occur?

- ASI occurs in places where JavaScript expects a semicolon but doesn't find one.

- Common scenarios include:

1 After a statement like return, break, or continue.

2 At the end of a line where the next line starts with a valid statement.

3 At the end of a block {} if no semicolon is explicitly added.

Practical Example

```js
function greet() {
  return
  {
    message: 'Hello, world!'
  }
}
console.log(greet());
// Output: undefined
```

- You might expect greet() to return the object { message: 'Hello, world!' }, but you are wrong!

Practical Example

```js
function greet() {
  return;  //semicolon is added here by ASI
  {

    message: 'Hello, world!'

  }
}
console.log(greet());
// Output: undefined
```
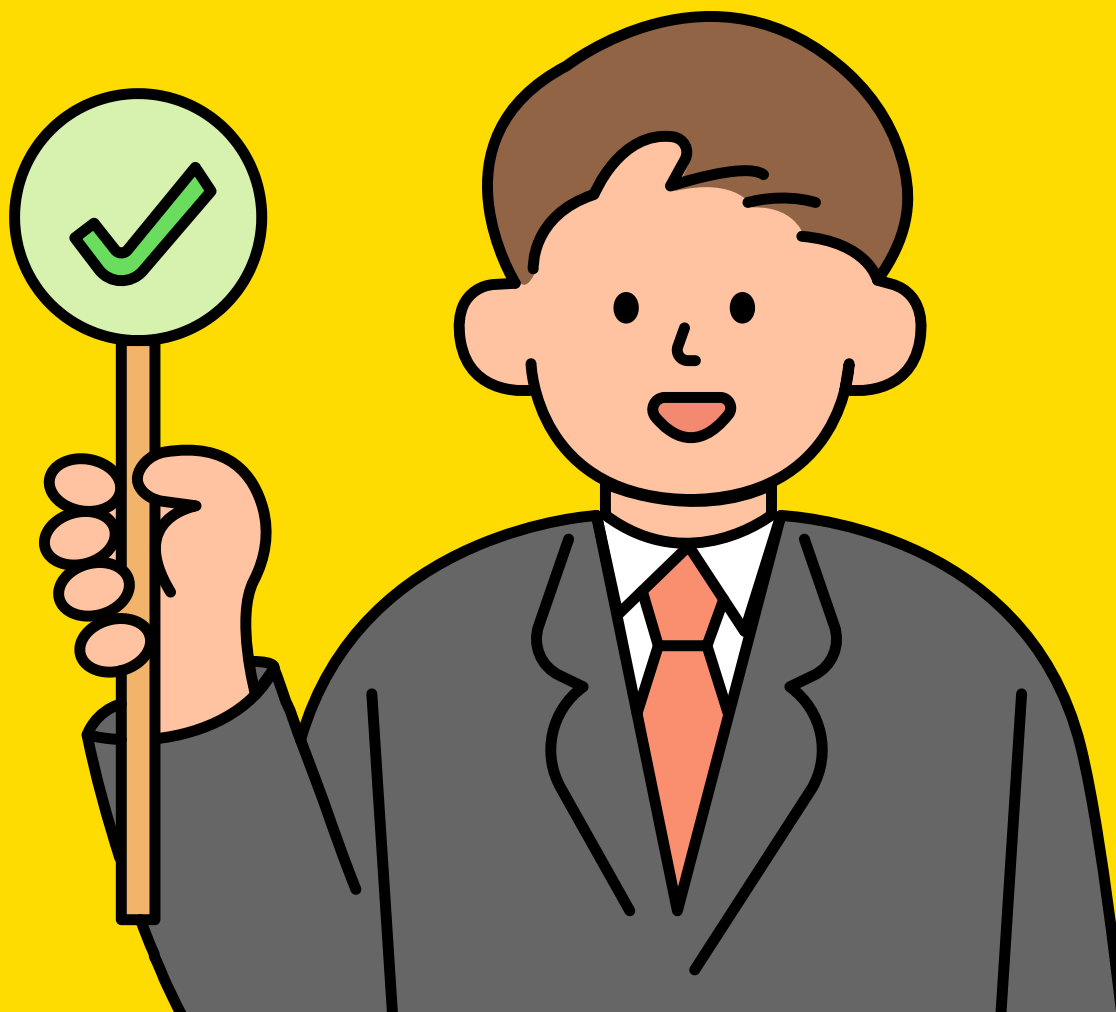
- Due to ASI, a semicolon is automatically inserted after return, making the function return undefined

Correct Way

```js
function greet() {
  return {
    message: 'Hello, world!'
  };
}
```

- Now as there is an opening brace, ASI will not insert (;) semicolon.

Best Practices

1 ALWAYS USE SEMICOLONS TO AVOID AMBIGUITY

2 BE CAUTIOUS WITH RETURN STATEMENTS

3 USE LINTERS LIKE ESLINT THAT CAN HELP CATCH ISSUES RELATED TO ASI.

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