

## ◆ Extracting the First Character of a String

There are two common ways to get the first character of a string:

### 1▢ Using `slice()`

```
var firstChar = firstName.slice(0, 1);
```

- `slice(0, 1)` extracts the first character.
- `slice()` returns a **substring**, meaning the result is still a **string**.

### 2▢ Using `charAt()`

```
var firstChar = firstName.charAt(0);
```

- `charAt(0)` directly gets the first character at index 0.
  - It's a **simpler** and **more direct** way to access a single character.
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## ◆ Extracting the Last Character

You can use `charAt()` to find the last character of a string:

```
var lastChar = firstName.charAt(firstName.length - 1);
```

### ◆ How It Works

1. **Finds the length of the string:** `firstName.length`
2. **Subtracts 1** to get the last index.
3. **Uses `charAt()`** to get the character at that index.

Example:

```
var firstName = "Alice";  
var lastChar = firstName.charAt(firstName.length - 1);  
console.log(lastChar); // Output: "e"
```

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## ◆ Finding a Character in a String (`charAt()` VS. `indexOf()`)

To check if a string contains a **specific character**, you can loop through the string using `charAt()`:

```
for (var i = 0; i < text.length; i++) {  
  if (text.charAt(i) === "!") {  
    alert("Exclamation point found!");  
    break; // Stops the loop once "!" is found  
  }  
}
```

```
}  
}
```

### ◆ Alternative: Using `indexOf()`

Instead of looping, you can use `indexOf()` to check for "!":

```
if (text.indexOf("!") !== -1) {  
    alert("Exclamation point found!");  
}
```

- `indexOf("!")` returns the index of the first "!" found.
- If "!" **is not found**, it returns -1.

### 💡 Key Difference:

- `charAt()` **accesses** a character at a specific position.
- `indexOf()` **searches** for a character but **does not extract it**.

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## ◆ Summary Table

Method	Purpose	Example	Returns
<code>slice(0, 1)</code>	Extract first character	<code>firstName.slice(0, 1)</code>	"A" (string)
<code>charAt(0)</code>	Get first character	<code>firstName.charAt(0)</code>	"A" (string)
<code>charAt(name.length - 1)</code>	Get last character	<code>firstName.charAt(firstName.length - 1)</code>	"e" (string)
<code>indexOf("!")</code>	Find position of "!"	<code>text.indexOf("!")</code>	5 (index) or -1 if not found

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### 🔧 Best Practices

1. Use `charAt()` for accessing a **specific character**.
2. Use `indexOf()` or `includes()` for **searching** a string.
3. Use `slice()` when extracting **substrings**.