

## ✦ Understanding the `prompt()` Function in JavaScript

A **prompt box** is a built-in JavaScript function that asks the user for input and **stores their response as a string**.

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### ◆ Basic Syntax of `prompt()`

```
var spec = prompt("Your species?", "human");
```

- ✓ The **first argument** ("Your species?") is the **message** displayed in the prompt box.
  - ✓ The **second argument** ("human") is the **default response** shown in the input field.
  - ✓ The user's response is stored in the variable `spec`.
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### ◆ Using Variables in `prompt()`

Instead of hardcoding the message and default value, you can use variables:

```
var question = "Your species?";  
var defaultAnswer = "human";  
var spec = prompt(question, defaultAnswer);
```

- ✓ This makes the code **more readable** and **easier to modify**.
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### ◆ Handling User Input

The **user's response is always a string**, even if they enter a number.

[🔗 Example Problem: Prompt Returns a String](#)

```
var numberOfCats = prompt("How many cats?");  
var tooManyCats = numberOfCats + 1;  
alert(tooManyCats); // 🗨️ Output: "31" if user enters 3
```

- ✓ Instead of 4, JavaScript concatenates "3" and 1, resulting in "31".
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### ◆ ✓ Fixing the Issue: Convert Input to a Number

To perform arithmetic, **convert the input to a number** using `parseInt()`, `parseFloat()`, or `Number()`:

```
var numberOfCats = prompt("How many cats?");  
var tooManyCats = Number(numberOfCats) + 1;
```

alert(tooManyCats); // ✔ Output: 4 if user enters 3

✔ Number() converts the input to a numeric value.

✔ **Alternative conversions:**

- parseInt(numberOfCats) → Converts to an **integer** (whole number).
  - parseFloat(numberOfCats) → Converts to a **decimal number** if needed.
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## ◆ Handling Empty Input and Cancel Button

### 💡 What happens if the user clicks OK without typing anything?

```
var response = prompt("Enter something:");  
alert("You entered: " + response);
```

✔ If the user enters **nothing and clicks OK**, the variable is assigned an **empty string** ("").

✔ If the user clicks **Cancel**, the variable is assigned null.

✔ **Handling Empty and Null Values:**

```
if (response === null) {  
    alert("User canceled the prompt.");  
} else if (response === "") {  
    alert("You entered an empty string.");  
} else {  
    alert("You entered: " + response);  
}
```

✔ null → The user clicked **Cancel**.

✔ "" → The user clicked **OK without typing anything**.

✔ Else → The user entered some input.

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## 💡 Quick Summary

✔ prompt() asks for user input and **stores it as a string**.

✔ If the user enters **nothing**, it returns an **empty string** ("").

✔ If the user clicks **Cancel**, it returns null.

✔ **Convert user input to a number** using Number(), parseInt(), or parseFloat() if needed.

✔ Using variables inside prompt() makes the code **cleaner** and **easier to maintain**.

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