## 📌 Rules for Naming a Variable

You've already learned three important rules:
1️⃣ **No quotation marks** around variable names.
2️⃣ **Cannot be a number or start with a number.**
3️⃣ **Cannot be a JavaScript keyword** (like var, alert, let, const).

Now, let's go over the rest of the rules!

---

## ⊘ Things You CANNOT Do

## ✖ No spaces in variable names.

var user name = "John";  // ✖ INVALID (spaces not allowed)

## ✖ No special characters except $ and _.

var user@name = "John";  // ✖ INVALID
var user-name = "John";  // ✖ INVALID

---

## ✅ Things You CAN Do

## ✅ Use letters, numbers, underscores (_), and dollar signs ($).

var userName = "Alice";    // ✅ VALID
var user_name = "Alice";    // ✅ VALID
var user$Name = "Alice";    // ✅ VALID
var user123 = "Alice";     // ✅ VALID

## ✅ You CAN use keywords as PART of a variable name.

var userAlert = "Hello!";  // ✅ VALID (contains "alert", but not just "alert")
var myVar = 100;         // ✅ VALID (contains "var", but not just "var")

## ✅ Capital letters are allowed, BUT be careful!
JavaScript is **case-sensitive**:

```
var rose = "Floribundas";
console.log(Rose);  // ✖ ERROR! (JavaScript treats "rose" and "Rose" as different variables)
```

---

# 🐫 What is camelCase?

☞ A variable name **starts in lowercase**, and **each new word starts with a capital letter**.

## ✅ camelCase Examples:

```
var userResponse;
var userResponseTime;
var userResponseTimeLimit;
var response;
```

## ✅ Why use camelCase?

- **More readable** than all lowercase (userresponsetime).
- **No spaces**, unlike user_response_time.
- **Less typing** than UserResponseTime.

---

# ▢ Why Use Descriptive Variable Names?

Writing **clear** variable names makes your code easier to understand!

## ✅ Good Example:

```
var userName = "Alice";
var favoriteBreed = "Golden Retriever";
```

## ✖ Bad Example:

```
var x = "Alice";
var favBrd = "Golden Retriever";
```

## 🚀 Balance readability and conciseness!
A variable like:

```
var bestSupportingActressInADramaOrComedy = "Meryl Streep";
```

is **too long**! Instead, shorten it to:

```
var bestActress = "Meryl Streep";
```

---

## 📌 Quick Summary

☑️ Use **letters, numbers, _, and $**.
☑️ **No spaces or special characters**.
☑️ **Case-sensitive** (SO userName ≠ UserName).
☑️ **Use camelCase** (userResponseTime).
☑️ **Make names descriptive** but not too long.