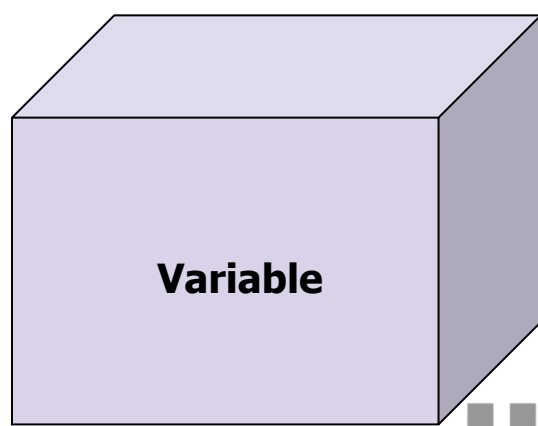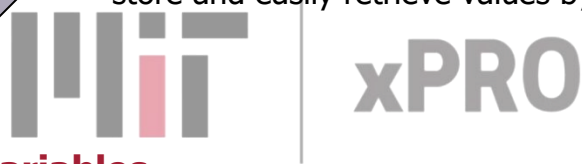# Module 3: Introduction to JavaScript
Video 3.2: Introduction to Variables

Variable

A variable is a container or storage location that holds data. For example, imagine you have a collection of boxes. Each box can hold different things: books, toys, or clothes. But the way things are right now, you can't identify what each box contains. To easily identify what's inside each box, you label it. In programming, a variable is like this labeled box in which you can store and easily retrieve values by referring to the label.
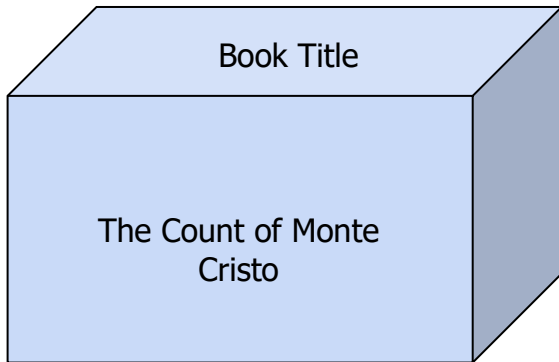
The Characteristics of Variables

- **Data storage**: Data can be saved for later use or manipulation.
- **Dynamic behavior**: Values can be changed as needed during execution of the code.
- **Code reusability**: Values do not need to be hard coded each time you need them.
- **Modularity**: Variables enable each block of code to work independently.
- **Improved readability**: Meaningful variable names are helpful for understanding the code better.
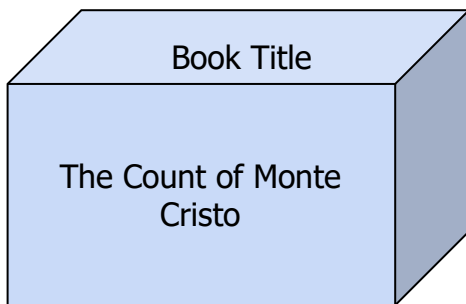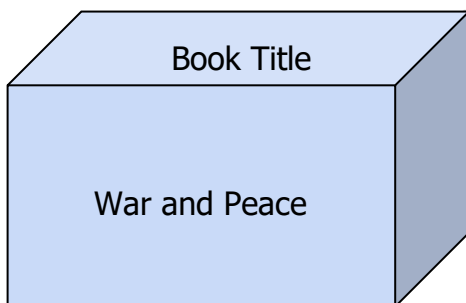
Data Storage

Variables store and manage data efficiently during the execution of the program. The example discussed above uses one variable to store the title of a book and another to store its price.

Book Title

The Count of Monte Cristo

Price

$3.99

If you want to purchase the book, the program can directly refer to the values in the *Book Title and the Price* variables to generate an invoice. Variables can be used to store blocks of code, which makes the code **reusable**.

Dynamic Behavior

Say you don't want to purchase the book. You see another book that you want to buy, *War and Peace*, which is priced at $4.99. The variables Book Title and Price can be updated accordingly. The variables dump the existing values and hold the new values as shown:

Before

After

What Can Variables Hold?

Variables can hold the following types of data:

- Numbers, which are useful for calculations.
- Text, which is useful for storing information.
- Boolean values (e.g., true/false), which are useful for verifying.
- Objects, which are useful for structuring data.

Variables can hold many more types of data besides those listed.

Where Do You Start?

Variables in JavaScript are created when they are declared. Variables can be declared using the keywords "var", "let", or "const" followed by the variable name and, optionally, its value.

Example:

- `var age = 30;`
- `let name = "John";`
- `const pi = 3.14159;`