

# JavaScript Variables

## Variables are Containers for Storing Data

JavaScript Variables can be declared in 4 ways:

- Automatically
- Using `var`
- Using `let`
- Using `const`

In this first example, `x`, `y`, and `z` are undeclared variables.

They are automatically declared when first used:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>JavaScript Variables</h1>
```

```
<p>In this example, x, y, and z are undeclared.</p>
```

```
<p>They are automatically declared when first used.</p>
```

```
<p id="demo"></p>
```

```
<script>
```

```
x = 5;
```

```
y = 6;
```

```
z = x + y;
```

```
document.getElementById("demo").innerHTML =  
"The value of z is: " + z;  
</script>  
  
</body>  
</html>
```

Output:-

## JavaScript Variables

In this example, x, y, and z are undeclared.

They are automatically declared when first used.

The value of z is: 11

### Example using var

```
var x = 5;  
var y = 6;  
var z = x + y;
```

## Note

The `var` keyword was used in all JavaScript code from 1995 to 2015.

The `let` and `const` keywords were added to JavaScript in 2015.

The `var` keyword should only be used in code written for older browsers.

Using let keyword example :-

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>JavaScript Variables</h1>
```

```
<p>In this example, x, y, and z are variables.</p>
```

```
<p id="demo"></p>
```

```
<script>
```

```
let x = 5;
```

```
let y = 6;
```

```
let z = x + y;
```

```
document.getElementById("demo").innerHTML =
```

```
"The value of z is: " + z;
```

```
</script>
```

```
</body>
```

```
</html>
```

Output:-

## JavaScript Variables

In this example, x, y, and z are variables.

The value of z is: 11

## Example using const

```
<!DOCTYPE html>

<html>

<body>

<h1>JavaScript Variables</h1>

<p>In this example, x, y, and z are variables.</p>

<p id="demo"></p>

<script>

const x = 5;

const y = 6;

const z = x + y;

document.getElementById("demo").innerHTML =

"The value of z is: " + z;

</script>

</body>
```

</html>

Output:-

## JavaScript Variables

In this example, x, y, and z are variables.

The value of z is: 11

## When to Use var, let, or const?

1. Always declare variables
2. Always use `const` if the value should not be changed
3. Always use `const` if the type should not be changed (Arrays and Objects)
4. Only use `let` if you can't use `const`
5. Only use `var` if you MUST support old browsers.