PDP UNIVERSITY

Website development

Lecture 3

Variable

Variable is a container that stores certain information.

In JavaScript there are 3 ways to declare a variable:

1. let

2. const

3. var

```
let/const/var variableName;
```

Variable name rules

There are 4 rules for naming variables:

1. Variable name can consist of letters, numbers, _ and $ only
2. Variable name does not begin with a number
3. Variable name is case-sensitive
4. Keywords (these) cannot be used for a variable name

Let

To declare a variable using **`let`** follow the format below:

```
let myLet;
```

To assign a value to a variable use **=** sign:

```
let a = 5;

let b = a; // b = 5

let c = a + b; // c = 5 + 5

console.log(c); // => 10
```

Let

To assign text value we use quotation marks:

```
let myName = “Umar”;
console.log(myName); // => Umar
```

We can use “ “, ‘ ‘ or ` ` to store text value;

+ sign when used with strings will concatenate them:

```
let concatString = “a” + “b”;
console.log(concatString); // => ab
```

Let

Variables may contain Boolean values, too. Boolean data type can be either TRUE or FALSE:

```
let isStudent = true;
console.log(isStudent); // => true


let test = 5 > 6;
console.log(test); // => false
```

Let: typeof

To find out the data type of a variable we can use **`typeof`** operator:

```
let myName = “Umar”
console.log(typeof myName); // string
let isStudent = true;
console.log(typeof isStudent); // boolean
let myAge = 73;
console.log(typeof myAge); // number
```

Let: undefined

A variable with no value assigned to it will return **`undefined`**:

```
let myName;
console.log(myName); // => undefined
```

If we refer to non-existing variable we get the following error:

```
console.log(nonExistingVariable);
```

```
▶Uncaught ReferenceError: nonExistingVariable is not defined
```

Const

There are two differences between **`let`** and **`const:`**

1. It is compulsory to assign value when const is declared

```
const PI; // => gives an error due to not assigning any value
```

2. It is not possible to update const value:

```
const PI = 3.14;

PI = 5.15; // => gives an error due to value update
```

Const

When you use const, it tells anyone looking at your code that this variable will never be assigned anything else. Every time they see that variable, they know what value that variable stores.

Var

When JavaScript was first created, **`var`** was the only way to declare variables.

`var` design is confusing and error prone.

In modern versions of JavaScript, let and const were introduced to solve the problems of **`var.`**

For this and other reasons, we recommend using **`let`** and **`const`** rather than **`var`** in your code.

Thank you for your attention