

INTRODUCTION TO JAVASCRIPT

JavaScript is light weight object-oriented programming language which is used by several website for scripting the webpages.

It was introduced in the year 1995 for adding programs to the webpages in the netscape navigator browser. Since then it has been adopted by all other graphical web browsers. With JavaScript, user can build modern web applications to interact directly without reloading the page every time. The traditional website uses JavaScript to provide several forms of interactivity and simplicity.

Although JavaScript has no connectivity with JAVA programming language. The name was suggested and provided in the time when JAVA was gaining popularity in the market. In addition to web browsers, database such as CouchDB and MongoDB uses JavaScript as their scripting and query language.

FEATURES OF JAVASCRIPT - All popular web browser support JavaScript as they provide built-in execution environments.

- It is a light weighted and interpreted language.
- It is a case sensitive language.
- It provides good control to the users over the web browser.

JAVASCRIPT SYNTAX, VARIABLE, OPERATOR AND EXPRESSION -

SYNTAX - JavaScript can be implemented using JavaScript statements that are placed in the `<script>--</script>` HTML tags in a web pages.

The `<script>` tag alerts the browser to allow start interpreting all the text between these tags as a script.

A simple syntax of JavaScript will appear as follows -

```
<script >  
    JavaScript Code  
</script >
```

YOUR FIRST JAVASCRIPT CODE -

```
<script >  
    document.write ("Hello, world!");  
</script >
```

OUTPUT : Hello, World!

CASE SENSITIVITY - JavaScript is a case-sensitive language. This means that the language, keywords, variables, function names and any other identities must always typed with a consistent capitalization of letters.

COMMENTS IN JS - JavaScript supports both C and C++ style comments. Thus any text between a // and the end of a line is treated as a comment and is ignored by JavaScript. Any text between the characters /* and */ is treated as a comment.

JAVASCRIPT DATATYPE - One of the most fundamental characteristics of a programming language is the set of data types it supports. There are the type of value that can be represented and manipulated in a programming language.

JavaScript allow to work with three primitive data types. -

NUMBERS - 123, 120.50 etc

STRINGS - "This is text"

BOOLEAN - True or False

JavaScript also defines two types of data types - null and undefined, each of defines only a single value. In addition to these primitive data types, JavaScript supports a composite data type, known as object.

JavaScript does not make a distinction between integer values and floating-point values. All numbers in JavaScript are represented as floating-point values.

JavaScript represents numbers using the default floating-point format

JS VARIABLES - JavaScript has variables.

Variable can be thought of as an named containers. You can place data into these containers and then refer to the data simply by naming the container.

Before using a variable in a program, it must be declared. Variables are declared with the "var" keyword as follows.

```
<script type="text/javascript">  
  var money;  
  var name;  
</script>
```

Storing a value in a variable is called 'variable initialization'. We can do variable initialization at the time of variable creation or at a later point in time when we need that variable.

JavaScript is untyped language. JS variable can hold a value of any data type.

JS VARIABLE SCOPE - The scope of a variable is the region of a program in which it is defined. JavaScript variable has only two scopes.

1. **GLOBAL VARIABLE** - A global variable has global scope which means it can be

Date: / /

2. LOCAL VARIABLE - A local variable will be visible only within a function where it is defined. Function parameters are always local to that function.

JAVASCRIPT OPERATORS

1. Arithmetic Operator
2. Comparison Operator
3. Assignment Operator
4. Logical Operator
5. Bitwise Operator
6. Conditional Operator
7. Miscellaneous Operator.