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JavaScript -:

1. **Introduction**
   - JavaScript is a client side scripting language.
   - It is used to make web pages alive.
   - It is used to programmatically perform actions within the page.
   - When JavaScript was created, it was initially called “LiveScript”.
   - But Java was a very popular language at that time, so it was decided that positioning a language as a “younger brother” of Java would help.

2. **JavaScript can do**
   - JavaScript can execute not only in the browser, but also on the server.
   - We will use JavaScript as a client as well as server side language.
   - JavaScript has evolved greatly as a language and is now used to perform a wide variety of tasks.
3. **In-browser JavaScript do**
   - If JavaScripts are used in any websites, then it should not be given any low level CPU permissions like switching off the CPU etc. That is why JavaScript is made with extremely safe permissions that does not have any permission to access low level CPU usage.

     I. JavaScript can add new HTML and change existing HTML from DOM.
     II. It can even react to any events (actions).
     III. It can also manage the AJAX requests (GET or POST request).
     IV. JavaScript can **get** and **set** cookies and use local storage.

4. **Can’t In-Browser JavaScript do**
   - JavaScript cannot read or write to and from computer hard disk without user permissions.
   - The browser does not allow the JavaScript of any website to collect the AJAX information of the other website because it generates the error of **same origin policy**.
   - To summarize, JavaScript can only access the permitted resources but cannot access your documents on personal computers.
   - These strict policies are developed to make sure that your computer is safe.

5. **What makes JavaScript a Unique Language**
   - The most important thing that makes it a unique language is, it has a complete integration of HTML and CSS. They provide it with a lot of extra support.
   - Also it provides the use of simple APIs (Application Programming Interface).
   - It also supports the major modern browsers which are enabled by default. If you turn off the feature of JavaScript in the browser, you cannot access any website.

6. **Versions of JavaScript**
   - JavaScript is such an important language that it requires substantial updates to maintain its different versions. The ECMA is a standard maintained for any of the scripting languages that pushes for new updates. The ECMA was first launched in 1997.

7. Developer Console

- Console is the only place, where you will find all the errors made in the code. If you have locked any request or have applied AJAX in the code, the errors regarding all these things will be shown in the console tab itself. Also, we can see the values of different variables if written in the code. Although there may be a chance that if you are using any other browser apart from Chrome like Firefox or Safari, you may find a different console tab, the high-level ideas of all the browsers will be the same. Therefore, it is recommended to use the Chrome browser due to its high developer tools.

8. Data Types And Operators

- (Var) variables are the data that store values.
- Result of variables will be displayed in console tab.
- These type of variables is known as Dynamic programming.
- Syntax-

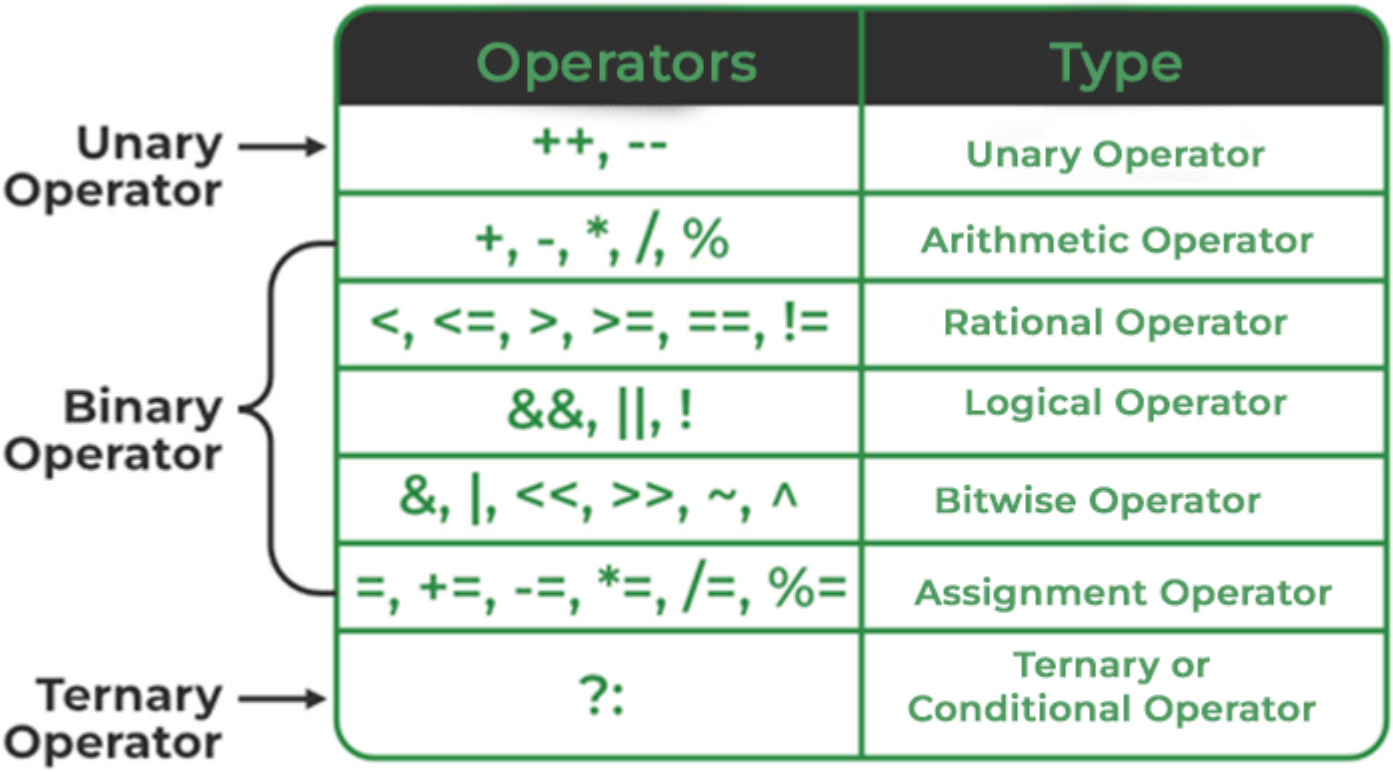
```
var num1 = 75;
```

I. Operators

There are two types of operators -:

a) Binary Operators &

b) Unary Operators.



- Bitwise operator is a character representing an action that works on data at the bit Level rather than with bytes or larger units of bits.
- ** Exopential operator