:. JAVASCRIPT :-

Q: What is Javascript?

Ans:- Script is a program (code) it doesn't require any preprocessing operations (ex compile / translate) before executing program.

⟹ Script executes in the context of browser

⟹ generally script executes :-

       i) While loading web page.

       ii) Event triggered by the user.

Types of scripts :

1) Client side
2) server side.

1) **Client Side:-** These programs are translated, execution & produces output in client machine only.

⟹ No need of S/w installing.

Eg:- Javascript, typescript, Jscript, ubscript---.

2.) <u>Server side:</u> These programs are translated &
execution in server. machine, but it
displaying result in client.

⇒ need Web server or application-server.

Eg:- express.Js, vue.Js, node Js b asp.net,
php----.

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\# Javascript in 1995 created by Netscape
developed by Brendan Eich.
First it is called Mocha. (1995)
                              ↓ Renamed
                         Livescript
                              ↓ Renamed
                         Javascript (1997 dec)

Netscape first introduced a Js interpreter in
Navigator 2.

\# ECMAscript / ES.
Later Javascript became an ECMA (European
Computer Manufactures Association delopt)
standard in 1997. ECMAscript is the official
name of the language.

⇒ Js is implementation of ES; ES is the specification of Javascript.

$$RBI \rightarrow SBI, HDFC, ICICI \rightarrow customer$$
$$ES \rightarrow JS \rightarrow Programmer.$$

⇒ Javascript is originally it's not programming lang.

AJAX, Node.js
JQuery, React.js } Javascript.
JSon, ASP.net } these technologies & framework
Angular   using Js as their PL.

⇒ Js is a speed, light weight, interperability, extended functionality, dynamic, loosely typed, cross platform, free wase & open-source.

⇒ Its single threaded programme.

⇒ Javascript is object-based or prototype based prog. it's not oops.

⇒ Js is catto client-side (browser-side) programming. That means It executes on the browser.

⇒ it can also be used in server-side by using Node JS, ASP, JSP.

⇒ Js is a case sensetive programme (mixed case.)

⇒ To work with Javascript, we don't need to install any software.

⇒ Js is interpreter based, programming means the code will be converted into machine lang. line by line. Js interpreter is already embedded in browser.

⇒ Parses:

JS code (high) ← → JS Paser ← → machine code.

⇒ Every browser they have own JS Engine.
- V8 → Chrome, opera & Edge.
- SpiderMonkey → Firefox.
- Chakra → IE.
- Squirrel Fish → Safari.

⇒ Javascript → web appln, mobile apps, networking app, AI, gaming appln, animations
(desktop) → standalone appln
↓ which doesn't need any network, bluetooth or connection.

⇒ Used of JS: - There are so many application running on the web that are using JS like google, Facbook etc...

Drawback:-
- no database
- not multithreaded.
-

how many ways to imp. js?
⇒ JS we can develop/imp in 3 ways but in 4 place.
① inline scripting.
② External "
③ internal. "

① **Inline Scripting :-**

Inline script nothing but writing code within the tag, by using event / dynamic attributes.

For this we need tag & event attributes.

Eg:-
```
<body>
  <h2> demo on inline script </h2>
  <button onclick = " alert ('hey, you pused me')"> Push
  </button>
  <button onclick = " alert ('hey, you peeled me')"> Pull
  </button>

  <h2 ondblclick = "alert (' 2 times click me')"> click me
  </h2>
```

② **Internal Scripting :-**

Eg:-
```
<head>
  <title> JS2 </title>
  <script type = " text/javascript">
    document. write ("msg from head sec");
  </script>
  <body>
  <Script type = "text/javascript">
    document. write ("msg from head sec");
  </body>
```

→ not mandatory to write.

→ what or which type of scripting lang. we are using, we write that one only.

Eg: JScript
vbscript
typescript
anyone