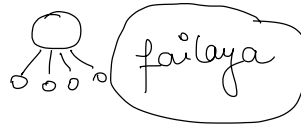


## Remaining JS Topics

### ① Spread operator



① Let Array = [10, 20, 30, 40];

② Let name = [50, 60, 70];

We want to concat or join two arrays :

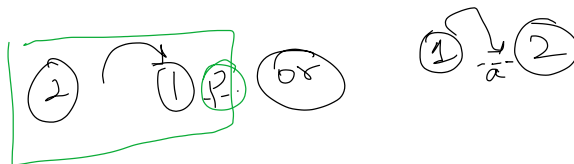
1. First way => concat (old way)
2. Second way => spread(modern way)

Concat

Array.concat(name);

Array =

1. spread operator spread all the value present inside the array or object.
2. spread operator is represented by ...arr(applying spread operator on array arr).



Spread

Array

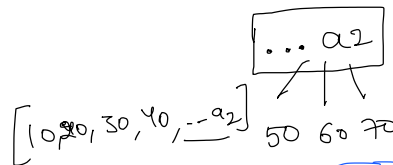
a1 = [10 20 30 40]

a2 = [50, 60, 70]

spread

Object hamari unordered data structure hoti hai toh hame object destructuring key ke through karni hogi.

Agar hame directly kareng jaise ki array m karte the toh hame undefined milegi kyuki usse kya pata konsi value ko access karna hai as object are unordered in nature.



let ay = [10, 20, 30, 40, 50, 60, 70]

Why to use spread operator ?  
See the use of this on github

Rest operator  
object Destruturing

④ object ? ✓

We can also apply spread operator on objects.

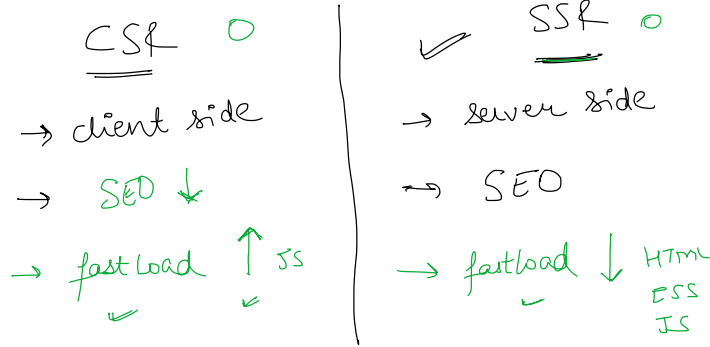
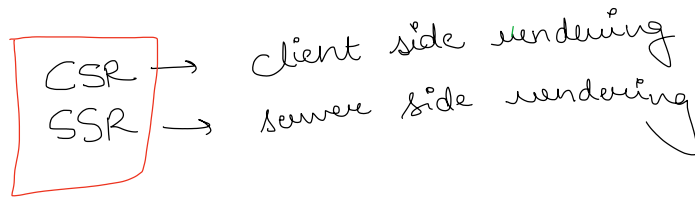
delete a particular key from any object

syntax => delete objectName.keyName

\_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_

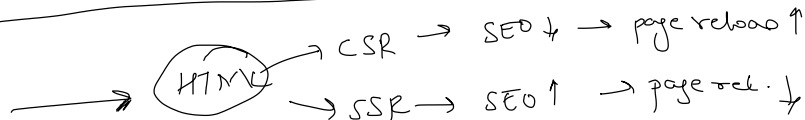
3

# BACKEND



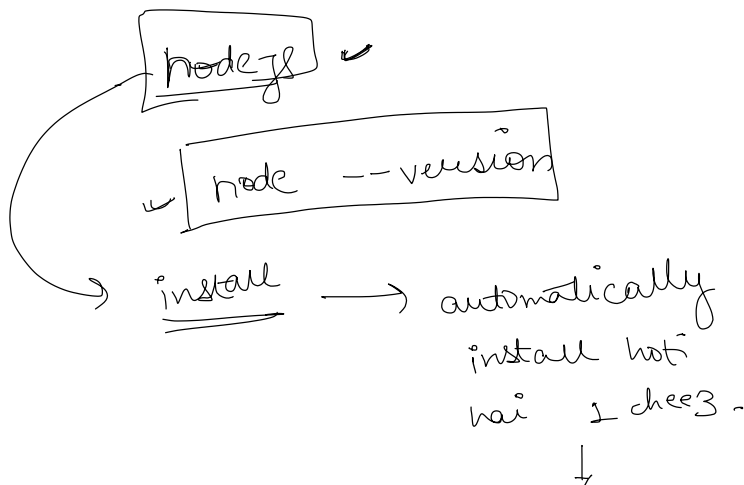
★★  
→

HTML kit page chel bann 2EI hai.



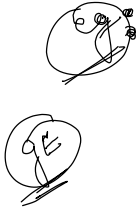
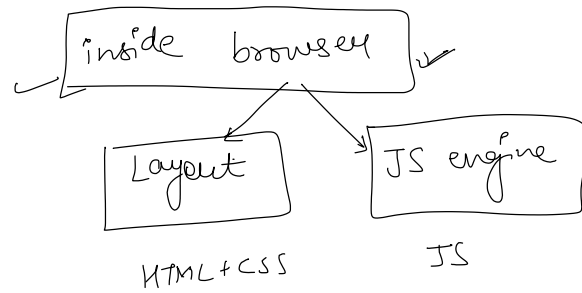
— X — X — X —

nodeJS



node package manager ← npm

JS → 1995 → BE



Browser	Layout E.	JS Engine
chrome	blink	V8
firefox	gecko	spider monkey
Microsoft edge	Trident	chakra

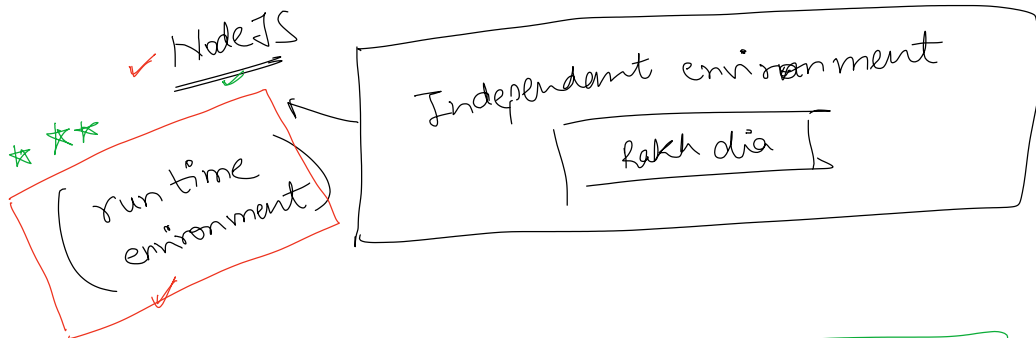
C++  
written = fastest

V8 → 16th Nov  
Call  
prod

2009 JS → Browser

Ryan Dahl → Baba

poora JS engine utaray



we run our Javascript

# Purpose of NodeJS ?

- NodeJS
- JS run karega?
  - drone software's
  - video games
  - native application

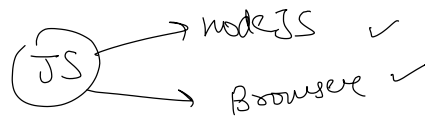
| → command line Tools →

✓ electron.js → Discard

# D/F B/w NodeJS & Browser ?

\*\*\*  
imp.

Browser	NodeJS
window (global obj)	global (global object)
document webAPI ✓	document X webAPI
file system access X	file system access ✓



→