

Ops Tree - OOPS and JavaScript concepts and discussions

OOPs concepts:-

Session - 1

1. OOPs topics
 - a. Encapsulation
 - b. Data abstraction
 - c. Inheritance
 - d. Polymorphism
2. Class and Objects
3. Access modifiers
4. Getters and setters
5. This
6. Constructor
7. Final
8. Static
9. Examples:- Dynamic array class, polynomial class
10. Inheritance
11. Private data members
12. Function overloading
13. Protected modifiers
14. Super keywords
15. Inheritance and constructors
16. Polymorphism

Session - 2

17. Class cast and object class
18. Exception handling
19. Finally block
20. Abstract keywords and Object
21. Abstract and inheritance chain
22. Interface and inheritance
23. Introduction to generics
24. Creating objects of generic class
25. Chained generic pairs
26. Generic methods
27. Bounded generics

JavaScript:-

Session - 3

1. JS Introduction
2. Scripting language vs programming language.
3. var, let, and const

4. Arithmetic (short-circuiting)
5. Functions
6. Functions and scope
7. Arrays in javascript
8. Objects in javascript
9. Clone objects
10. Callback functions
11. Timing
12. DOM
13. Event handling
14. Script tag and js code
15. HandlEvent Propagation :- <https://javascript.info/bubbling-and-capturing>
16. What happens when we type the address and hit enter // do it later.
17. Single thread/multithread
18. Avoiding global variables
19. IIFE -> Immediately invoked function expression
 - a. Ways to create IIFE:- <https://javascript.info/var>
20. Closures (function + lexical environment in which it was created)
21. Closures -> preserving scope
22. Arrow functions
23. Binding in arrow functions // done till the last session

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24. This keyword: -
<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/this>
25. This in strict mode - read MDN docs
26. Constructors
27. Prototype
28. Class
29. Asynchronous
30. Event queue / Event loop
31. Ajax -> Asynchronous javascript and XML (uses HTTP to transfer data)
32. Javascript event loop
33. Promises and Microtask queues (order of execution with call stack and macrotask queue)
34. Try out <https://javascript.info/>
35. Quizzes :-
 - a. <https://github.com/lydiahallie/javascript-questions>
 - b. <https://github.com/sudheerj/javascript-interview-questions>