

File Edit Selection View Go Run Terminal Help

Task 1

CHAT

EXPLORER

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TASK 1

OUTLINE

TIMELINE

.js hoistings.js

.js memory.js

.js debugTask.js

1 //Task: write 10 examples demonstrating hoisting diff

2

3 //#eg1

4 console.log(a);

5 var a = 10; //var is hoisted but intalized with undefined value

6

7 // //#eg2

8 console.log(b); // let cannot access b value before intalization

9 let b =20; //temporal Dead Zone

10

11 // //#eg3

12 console.log(c); //const cannot access c value before intaliziion

13 const c=30; ////temporal Dead Zone

14

15 // //#eg4

16 hello(); //functions declartions can be called before they are defined due to hoisting

17 function hello(){

18 | console.log("hello"); //hello

19 }

20

21 // //#eg5

22 sayHi(); //sayHi runs is undefined but you cannot call undefined as a function so its thr

23 var sayHi = function (){

24 | console.log("hi");

25 |};

26

27 //eg6:

28 sayHey(); //function expression assigned to let so cannot access before defined so its sho

29 let sayHey = function (){

30 | console.log("hey"); ////temporal Dead Zone

31 }

32

33 //#eg7:

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SUGGESTED ACTIONS

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31 }

32

33 //eg7:

34 sayHy(); //function expression assigned to const so cannot access before defined so its sho

35 const sayHy = function (){

36 console.log("hy");

37 }

38

39 //eg8

40 arrow(); //arrow function assigned with var are hoisted as undefined

41 var arrow = () =>{

42 | console.log("Arrow func");// so calling them before assign they throw type error

43 }//var is hoisted but not a function

44

45 //eg9

46 const obj = new Person(); //the code throw error beacuse javascript classes are not hoisted

47 class Person{ //so person cannot be used before declaration

48 | constructor(){

49 | | console.log("person created")

50 | }

51 }

52

53 //eg10

54 var x = 5; // x are hoisted at the top of the function and shadows global x, so its when c

55 function test(){

56 | console.log(x);

57 };

58 test();

59

60

61

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task 1

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1 //memory visualization

2 //primitive data created in stack area

3

4 let person1 = { //objects created in heap area

5 | name: "priyanka",

6 | age: 24

7 |};

8

9 let person2 = person1; //person2 now points to the same object as person 1

10 person2.age=25;

11

12 console.log(person1);//25 printing person2 age beacuse object is shared

13 console.log(person2);//25

14

15 console.log(person1===person2); //(===) check strict equality reference type

16 //this task shows that changes made through one vaiable are reflected to another they have sa

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EXPLORER

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task1

debugTask.js

hoisting.js

memory.js

OUTLINE

TIMELINE

debugTask.js

1function startProcess(){

2 console.log("process started");

3 start1();

4 }

5 function start1(){

6 console.log("start1 executed");

7 start2();

8 }

9 function start2(){

10 console.log("start2 executed");

11 console.trace("trace step2"); //prints call stack showing execution context transitions

12 }

13 startProcess(); //startProcess()->start1()->start2()

14 //console.trace() helps to print the stack helping debug flow

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