



NULL
NUMBER
SYMBOL
STRING
BOOLEAN
BIGINT
UNDEFINED

and U - means Undefined



File Edit Selection View Go Run ... Javascript- [Codespaces: psychic chainsaw]

EXPLORER

OPEN EDITORS 1 unsaved

- JS 01_arrayjs... U
- JS nmbssujs... U
- JS objectjs... U
- JS 02_arrayjs... U

JAVASC...

- .devcontainer
- { } devcontainer.json
- 01_array
- JS 01_arrayjs U
- JS 02_arrayjs U
- 01_basic
- JS 01.js M
- nmbssuobject
- JS nmbssujs U
- JS objectjs U
- README.md

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, ...)

PROBLEMS OUTPUT TERMINAL PORTS

bash - Javascript- + - ... ^ X

```
null 45 true 570n Vaibhav Symbol(I am a nice symbol) undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nmbssuobject/object.js
true
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nmbssuobject/object.js
undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nmbssuobject/object.js
undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $
```

Ln 19, Col 27 Spaces: 4 UTF-8 LF JavaScript

19°C Mostly clear 22:34 29-11-2023

```
1 /*
2 null      n
3 number    n
4 bigint    b
5 boolean   b
6 symbol    s
7 string    s
8 undefined u
9 n n b b s s u
10 */
11
12 let a=null;
13 let b=45;
14 let c=true;
15 let d=BigInt("567")+0igInt("3")
16 let e="Vaibhav"
17 let f=Symbol("I am a nice symbol")
18 let g=undefined
19 console.log(a,b,c,d,e,f,g)
```

File Edit Selection View Go Run ... Javascript- [Codespaces: psychic chainsaw]

EXPLORER

OPEN EDITORS 1 unsaved

- JS 01_arrayjs... U
- JS nnbbssujs... U
- JS objectjs nn... U
- JS 02_arrayjs... U

JAVASCRIPT

- .devcontainer
- devcontainer.json
- 01_array
- JS 01_arrayjs U
- JS 02_arrayjs U
- 01_basic
- JS 01.js M
- nnbbssuobject
- JS nnbbssujs U
- JS objectjs U
- README.md

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, ...)

PROBLEMS OUTPUT TERMINAL PORTS

bash - Javascript- + - - - ^ X

```
null 45 true 570n Vaibhav Symbol(I am a nice symbol) undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nnbbssuobject/object.js
true
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nnbbssuobject/object.js
undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node nnbbssuobject/object.js
undefined
@vaibhav2017goyal →/workspaces/Javascript- (main) $
```

Ln 8, Col 24 Spaces: 4 UTF-8 LF JavaScript

19°C Mostly clear 22:34 29-11-2023

TYPES OF CONVERSION

- STRING
- BOOLEAN
- NUMBER

IMPLICIT V/S EXPLICIT COERSION

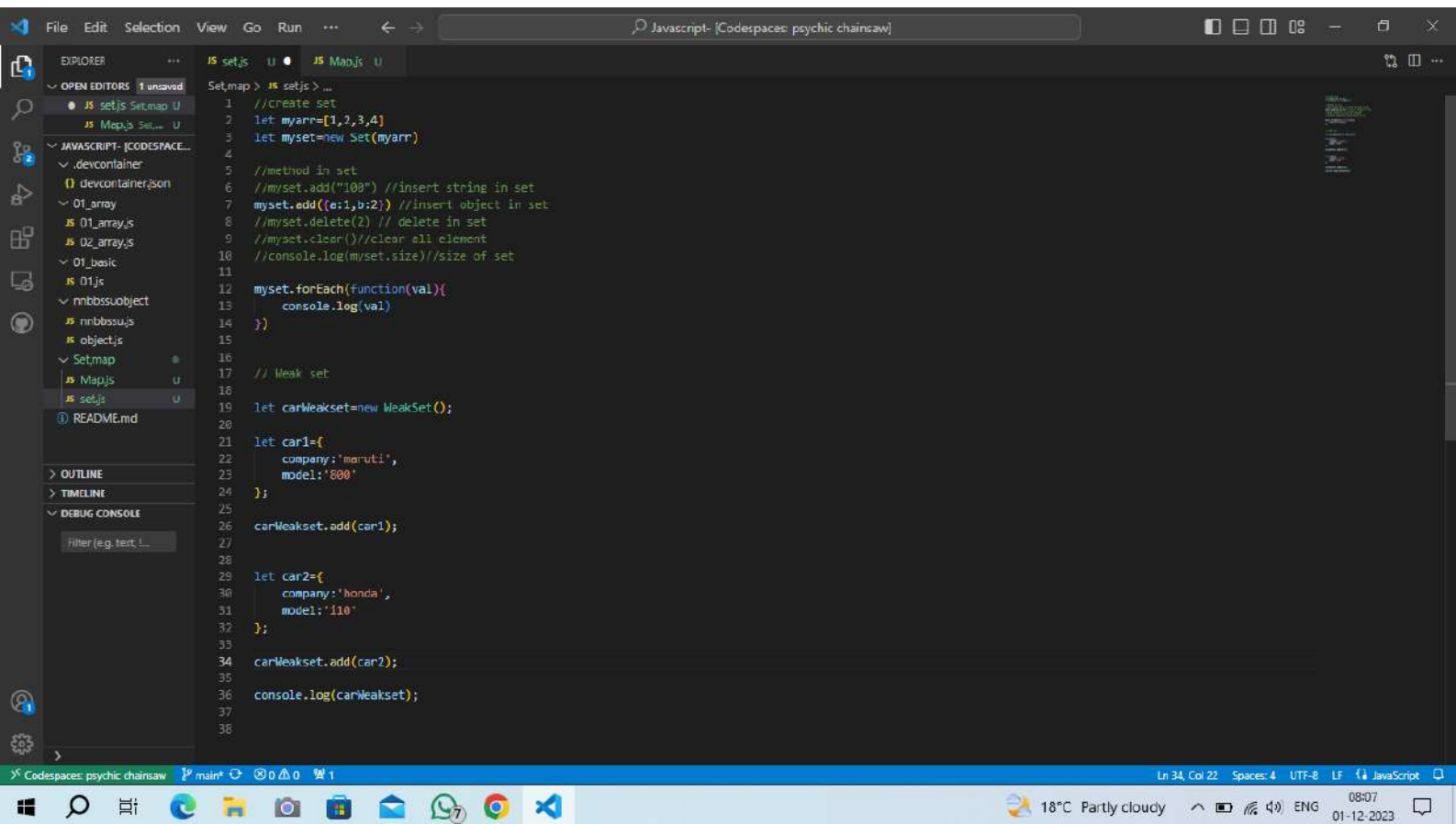
```
true + false           // 1
12 / "6"               // 2
"number" + 15 + 3      // 'number153'
15 + 3 + "number"      // '18number'
[1] > null              // true
"foo" + + "bar"        // 'fooNaN'
'true' == true         // false
false == 'false'       // false
null == ''             // false
!!"false" == !!"true"  // true
['x'] == 'x'           // true
[] + null + 1          // 'null1'
[1,2,3] == [1,2,3]     // false
{}+[]+{}+[1]           // '0[object Object]1'
!+[]+[]+![]           // 'truefalse'
new Date(0) - 0        // 0
new Date(0) + 0        // 'Thu Jan 01 1970 02:00:00(EET)0'
```

IMPLICIT

IMPLICIT V/S EXPLICIT COERSION

```
String(123)           // '123'  
String(-12.3)         // '-12.3'  
String(null)          // 'null'  
String(undefined)     // 'undefined'  
String(true)          // 'true'  
String(false)         // 'false'
```

EXPLICIT



File Edit Selection View Go Run ... ← → Javascript- [Codespaces: psychic chainsaw]

EXPLORER

OPEN EDITORS 1 unsaved

- JS setjs Setmap U
- JS Mapjs Set... U

JAVASCRIPT- [CODESPACE...]

- .devcontainer
- devcontainer.json
- 01_array
- JS 01_arrayjs
- JS 02_arrayjs
- 01_basic
- JS 01.js
- nbbssuobject
- JS nbbssujs
- object.js
- Setmap
- JS Mapjs U
- JS setjs U

OUTLINE

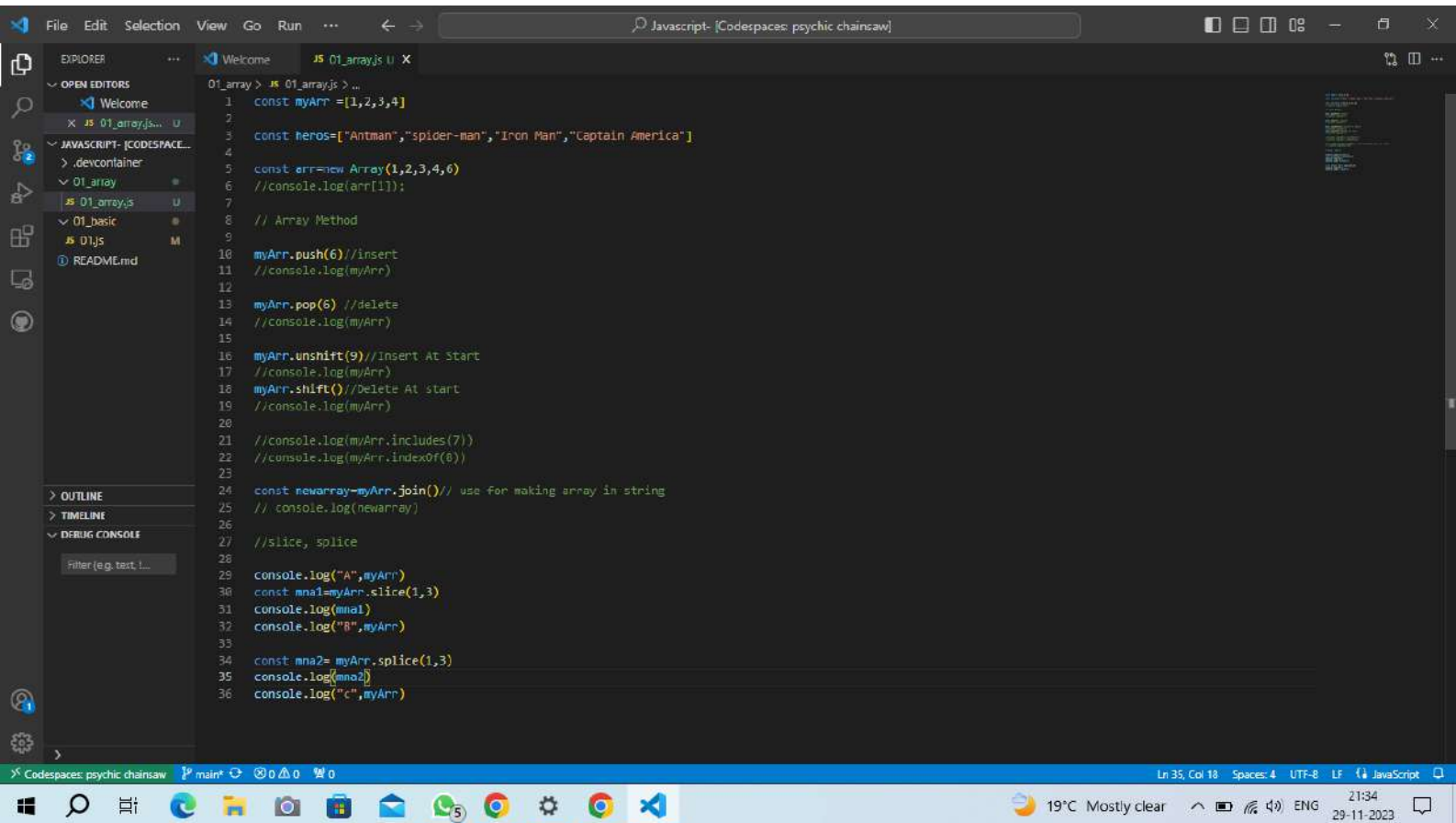
TIMELINE

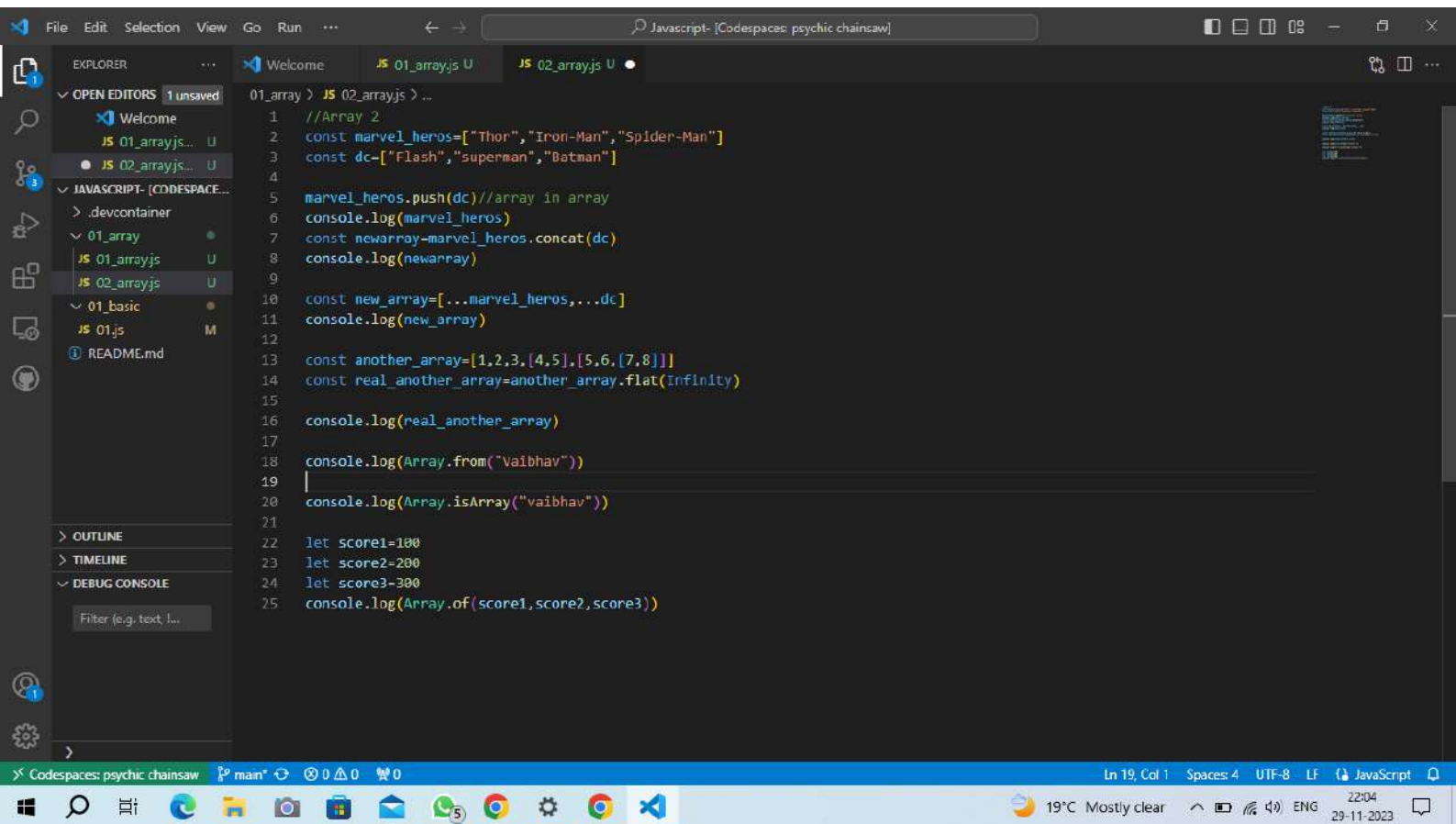
DEBUG CONSOLE

Filter (e.g. text, l...)

```
Setmap > JS Mapjs > [0] car1
1 let mymap= new Map([["a1","hello"],["b1","Goodbye"]])
2 mymap.set("c3","Vaibhav")
3 mymap.delete("b1")
4 mymap.clear()
5 //console.log(mymap.size)
6
7 //weakmap
8 let carWeakMap=new WeakMap();
9 let key1={
10   id:1
11 }
12 let car1={
13   company:'maruti',
14   model:'800'
15 }
16
17 carWeakMap.set(key1,car1);
18
19 let key2={
20   id:2
21 }
22 let car2={
23   company:'maruti',
24   model:'800'
25 }
26
27 carWeakMap.set(key2,car2);
28 console.log(carWeakMap)
```

Codespaces: psychic chainsaw main 0 1 Ln 12, Col 11 Spaces: 4 UTF-8 LF JavaScript 18°C Partly cloudy 08:14 01-12-2023





File Edit Selection View Go Run ... JavaScript- [Codespaces: automatic barnacle]

EXPLORER

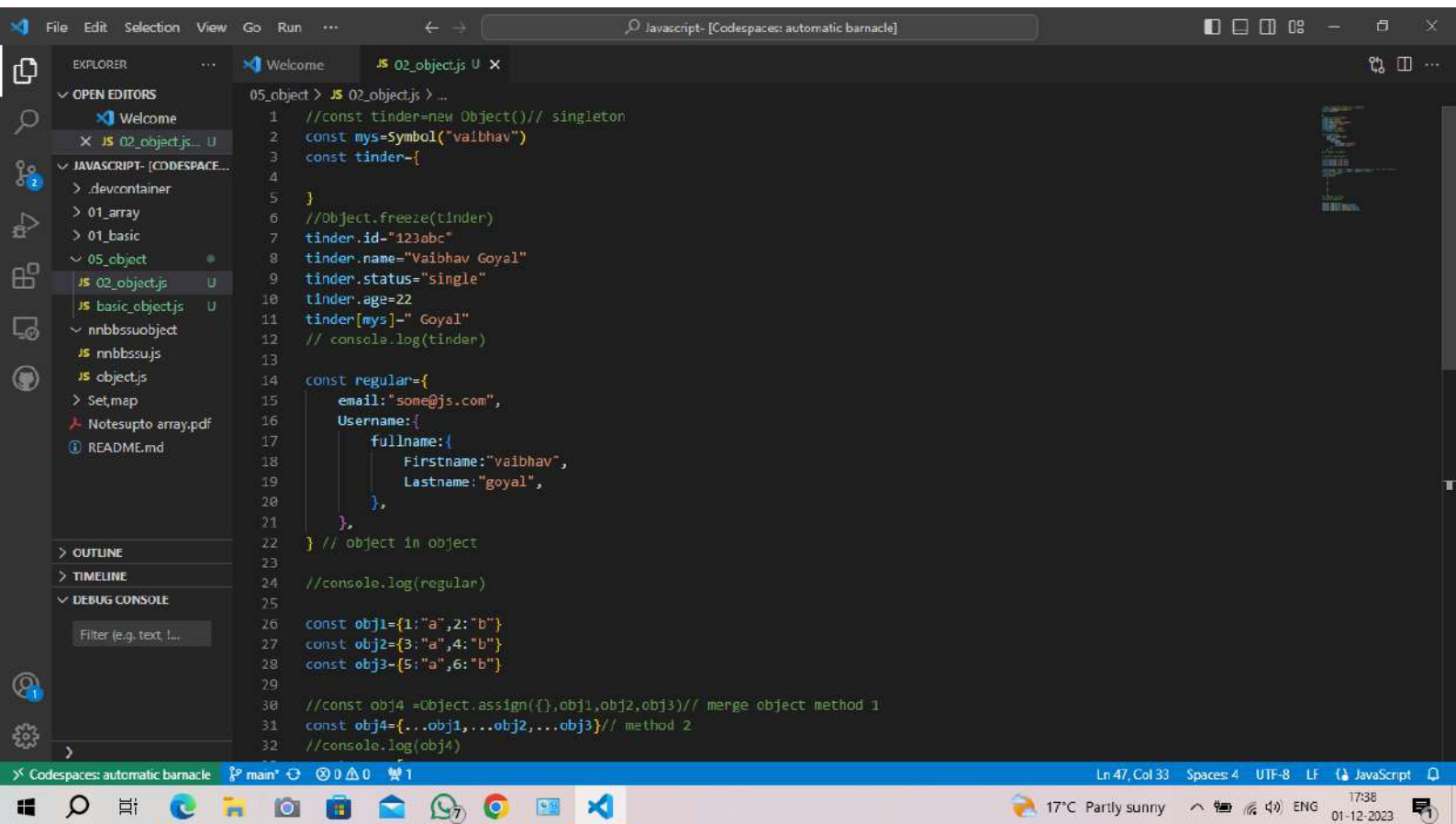
- OPEN EDITORS
 - Welcome
 - JS basic_object.js
 - JS object.js
- JAVASCRIPT- [CODESPACE...]
 - .devcontainer
 - 01_array
 - 01_basics
 - 05_object
 - JS basic_object.js
 - nmbssuobject
 - JS nmbssu.js
 - JS object.js
 - Setmap
 - Notesupto array.pdf
 - README.md
- OUTLINE
- TIMELINE
- DEBUG CONSOLE
 - Filter (e.g. test !...)

05_object > JS basic_object.js > g2

```
1 //Types Of Object are;-
2 //Singleton
3 //Object.create
4
5 //Object literals
6 const mys=Symbol("vaibhav");//that's how symbol initiate
7 const JsUser={
8   name:"Vaibhav",
9   lastname:"Goyal",
10  "fullname":"Vaibhav Goyal",
11  [mys]:"vaibhav", //symbol value insert
12  age:22,
13  location:"Delhi",
14  isLoggedIn:false,
15  email:"vaibhav2017goyal",
16  lastlogindays:["Monday","Tuesday"]
17 }
18
19 // console.log(JsUser.email)
20 // console.log(JsUser["email"])
21 // console.log(JsUser["fullname"])
22 // console.log(JsUser.fullname)
23 // console.log(JsUser[mys])//this method use to call symbols
24
25 JsUser.email="vaibhav2017goyal@gmail.com"
26 //Object.freeze(JsUser)//use for freeze object
27 JsUser.email="vaibhav2017goyal@yahoo.com"
28 //console.log(JsUser)
29
30 JsUser.g=function(){
31   console.log("hello Vaibhav ")
32 }
33 JsUser.g2=function(){
34   console.log(`hello Vaibhav ${this.lastname}`)
35 }
36
37
38 console.log(JsUser.g())
39 console.log(JsUser.g2())
```

Ln 34, Col 32 Spaces: 4 UTF-8 LF JavaScript

17°C Partly sunny 17:06 01-12-2023



File Edit Selection View Go Run ... Javascript- [Codespaces: automatic barnacle]

EXPLORER

OPEN EDITORS

- Welcome
- JS 02_objectjs U

JAVASCRIPT- [CODESPACE...]

- .devcontainer
- 01_array
- 01_basic
- 05_object
 - JS 02_objectjs U
 - JS basic_objectjs U
 - JS nmbssuobject
 - JS objectjs
- Set, map
- Notesupto array.pdf
- README.md

OUTLINE

TIMELINE

DEBUG CONSOLE

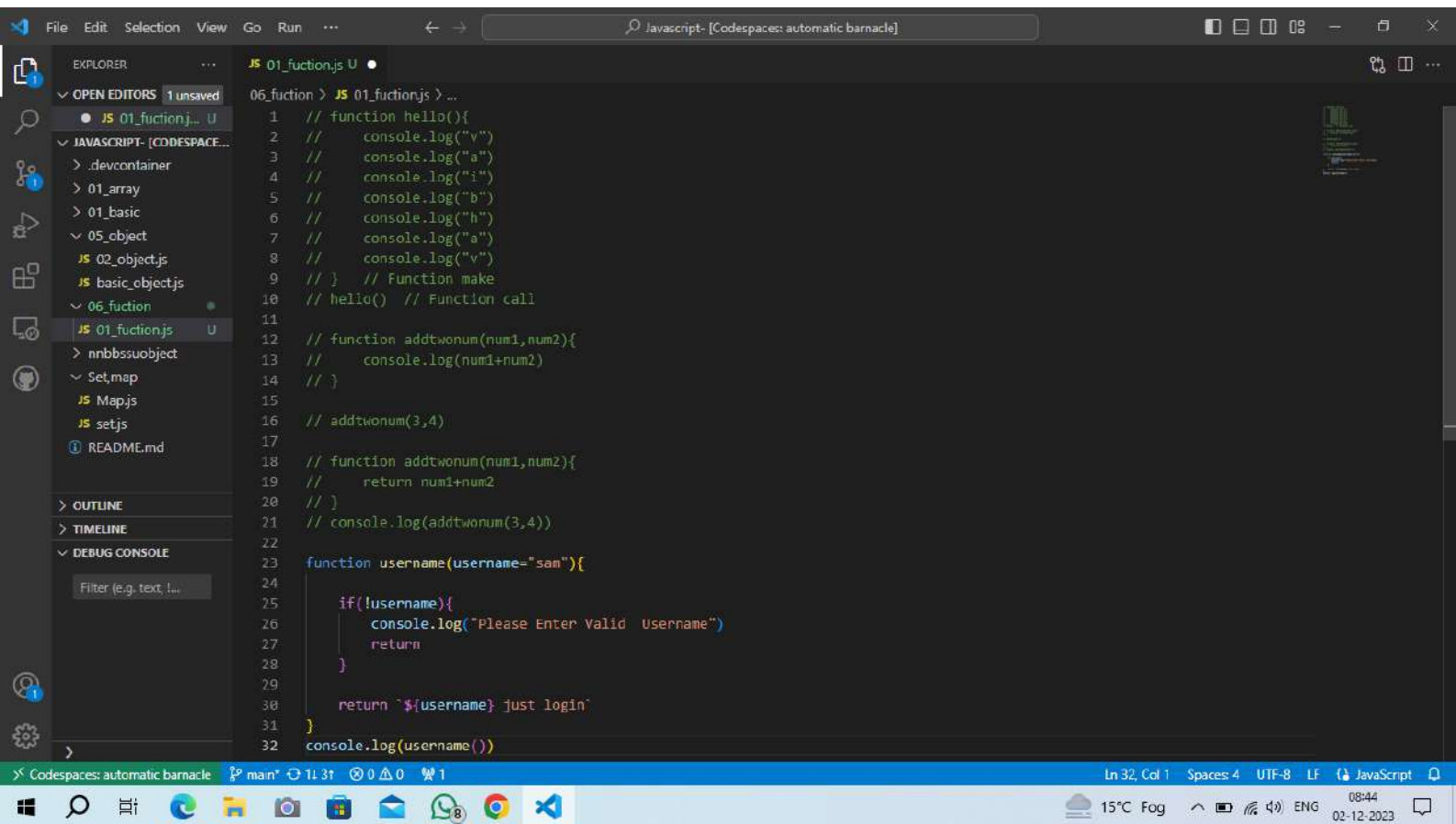
Filter (e.g. text, ...)

05_object > JS 02_objectjs > ...

```
23
24 //console.log(regular)
25
26 const obj1={1:"a",2:"b"}
27 const obj2={3:"a",4:"b"}
28 const obj3={5:"a",6:"b"}
29
30 //const obj4 =Object.assign({},obj1,obj2,obj3)// merge object method 1
31 const obj4={...obj1,...obj2,...obj3}// method 2
32 //console.log(obj4)
33 const user=[
34   {
35   },
36 },
37 {
38 },
39 },
40 {
41 },
42 }
43 ]// objects in array
44 //console.log(user)
45
46 console.log(tinder)
47 console.log(Object.keys(tinder))
48 console.log(Object.values(tinder))
49 console.log(Object.entries(tinder))
50 console.log(tinder.hasOwnProperty('name'))]
```

Ln 50, Col 42 Spaces: 4 UTF-8 LF JavaScript

17°C Partly sunny 17:40 01-12-2023



JavaScript - [Codespaces: automatic barnacle]

EXPLORER

OPEN EDITORS 1 unsaved

- JS 01_function.js U
- JS 02_function.js U

JAVASCRIPT - [CODESPACE...]

- .devcontainer
- 01_array
- 01_basic
- 05_object
 - JS 02_object.js
 - JS basic_object.js
- 06_fuction
 - JS 01_fuction.js U
 - JS 02_fuction.js U
- nbbssuobject
- Set,map
 - JS Map.js
 - JS set.js
- README.md

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, !...)

```
7
8 const obj={
9   name: "vaibhav",
10  price:"999"
11 }
12
13 function handleobj(anyobject){
14   //console.log(`${anyobject.name} is useername and price is ${anyobject.price}`)
15 }
16
17 handleobj({
18   name:"abc",
19   price:99
20 })
21
22 const newarray=new Array(100,200,300,400)
23
24 function handlearr(getarr){
25   console.log(getarr[1])
26 }
27
28 //handlearr(newarray)
29 handlearr([2,3,4,5,6])
```

Ln 28, Col 3 Spaces: 4 UTF-8 LF JavaScript

09:14 02-12-2023

File Edit Selection View Go Run ...

JavaScript- [Codespaces: laughing system]

EXPLORER

OPEN EDITORS

JS 01_scopejs U

JAVASCRIPT- (CODESPACE...)

devcontainer

01_basic

02_rnbbssuobject

03_Set_map

04_array

05_object

06_function

07_scope

JS 01_scopejs U

Notes upto objects.pdf

README.md

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, !...)

07_scope > JS 01_scopejs > ...

Click here to ask Blackbox to help you code faster

```
1 //let a=2
2 //const b=3
3 var c=4
4
5 if(true){
6   let a=20
7   const b=30
8   c=40
9 }
10
11 //console.log(a)
12 //console.log(b)
13 console.log(c)
```

PROBLEMS OUTPUT TERMINAL PORTS 2 SEARCH TERMINAL OUTPUT COMMENTS

bash - Javascript- + - - - ^ X

at Module.load (node:internal/modules/cjs/loader:938:12)
at Function.executeUserEntryPoint [as runMain] (node:internal/modules/run_main:83:12)
at node:internal/main/run_main_module:23:47

Node.js v20.9.0

@vaibhav2017goyal →/workspaces/Javascript- (main) \$ node 07_scope/01_scope.js

40

@vaibhav2017goyal →/workspaces/Javascript- (main) \$

Codespaces: laughing system main* 0 0 0 2 Share Code Link Generate Commit Message Comment Code Generate Repo Blackbox Search Terminal Output Spell tabnine starter Prettier

15°C Fog 17:50 02-12-2023

File Edit Selection View Go Run ... Javascript- [Codespaces: laughing system]

EXPLORER

OPEN EDITORS

- JS 01_scopejs... U
- JS 02_scopejs... U

JAVASCRIPT- [CODESPACE...]

- .devcontainer
- .vscode
- 01_basic
- 02_rnbbssuobject
- 03_Set_map
- 04_array
- 05_object
- 06_function
- 07_scope
- JS 01_scopejs U
- JS 02_scopejs U
- 08
- Notes upto objects.pdf
- README.md

07_scope > JS 02_scopejs > one

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```
1 addone(5)
2 function addone(num1) {
3   return num1+1
4 }
5
6 //addtwo(5)
7 const addtwo=function (num2) { //addtwo(5)
8   return num2+2 //ReferenceError: Cannot access 'addtwo' before initialization
9 }
10
11 function one(){
12   const username="Vaibhav"
13   function two(){
14     const game="Bgmi"
15     console.log(username)
16   }
17   //console.log(game) //can't access outside function
18   two()
19 }
20 one()
21
22
```

PROBLEMS 2 OUTPUT TERMINAL PORTS 2 SEARCH TERMINAL OUTPUT

bash - Javascript- + v ... ^ X

```
at Module._load (node:internal/modules/cjs/loader:938:12)
at Function.executeUserEntryPoint [as runMain] (node:internal/modules/run_main:83:12)
at node:internal/main/run_main_module:23:47

Node.js v20.9.0
@vaibhav2017goyal →/workspaces/Javascript- (main) $ node 07_scope/02_scope.js
Vaibhav
@vaibhav2017goyal →/workspaces/Javascript- (main) $
```

Codespaces: laughing system main* 0 0 0 2 2 Share Code Link Generate Commit Message Comment Code Generate Repo Blackbox Search Terminal Output Blackbox 2 Spell Prettier

15°C Fog 18:07 02-12-2023

File Edit Selection View Go Run ... JavaScript - [Codespaces: laughing system]

EXPLORER

OPEN EDITORS 1 unsaved

Welcome

JS 01_this_arrow.js U

JAVASCRIPT- [CODESPACE...]

> 06_function

> 07_scope

> 08_this_arrow_f...

JS 01_this_arrow.js U

Notes upto objects.pdf

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, !...)

08_this_arrow_function > JS 01_this_arrow.js > user

Click here to ask Blackbox to help you code faster

```
1 const user={
2   name:"Vaibhav",
3   price:999,
4
5   welcomemessage: function(){
6     console.log(`${this.name}, welcome to javascript`);
7   }
8 }
9
10 user.welcomemessage()
11 // console.log(this)
12
13 //arrow function
14 // function ()={ } , ()=>{}
15
16 // const add= (x,y)=>{return x+y;}//first method
17 const add= (x,y)=> x+y//second method use in react
18 console.log(add(5,6))
```

Codespaces: laughing system main* 0 0 3 Share Code Link Generate Commit Message Comment Code Generate Repo Blackbox Search Terminal Output Go Live Blackbox Spell Prettier

15°C Fog 22:16 02-12-2023

File Edit Selection View Go Run ... Javascript- [Codespaces: laughing system]

EXPLORER

OPEN EDITORS 2 unsaved

- Welcome
- JS 01_this_arrow.js U
- JS 02_IIFE.js U

JAVASCRIPT- (CODESPACE...)

- > 06_function
- > 07_scope
- > 08_this_arrow_f...
- JS 01_this_arrow.js U
- JS 02_IIFE.js U

OUTLINE

TIMELINE

DEBUG CONSOLE

Filter (e.g. text, ...)

08_this_arrow_function > JS 02_IIFE.js > ...

Click here to ask Blackbox to help you code faster

```
1 //Immediately Invoked Function Expressions (IIFE)
2
3 (function one(){           //Named IIFE
4     console.log("Hello World ");
5 })();
6
7 ((name)=>{                // arrowed or Unnamed IIFE
8     console.log(`Hello,${name}`);
9 })(`vaibhav`);
```

PROBLEMS OUTPUT TERMINAL PORTS SEARCH TERMINAL OUTPUT

bash - Javascript- + - - - ^ X

- @vaibhav2017goyal → /workspaces/Javascript- (main) \$ node 08_this_arrow_function/01_this_arrow.js
Vaibhav, welcome to javascript
{}
- @vaibhav2017goyal → /workspaces/Javascript- (main) \$ node 08_this_arrow_function/02_IIFE.js
Hello World
Hello,vaibhav
- @vaibhav2017goyal → /workspaces/Javascript- (main) \$

Codespaces: laughing system main* 0 0 0 3 Share Code Link Generate Commit Message Comment Code Generate Repo Blackbox Search Terminal Output Go Live Blackbox Spell Prettier

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Javascript Execution Context

$\{ \}$ → Global EC ↖ this

↳ Global Execution Context

↳ Function Execution Context

↳ Eval Execution Context

`{ }` → Memory Creation Phase
→ Execution Phase

```
1 let val1 = 10
2 let val2 = 5
3 function addNum(num1, num2){
4   let total = num1 + num2
5   return total
6 }
7 let result1 = addNum(val1, val2)
8 let result2 = addNum(10, 2)
```



Screenflow File Edit Mark Clip Insert Actions Font Arrange View Window Help

New Tab X New Tab

Search Google or type a URL

9:41 AM Tue 9 Jan

① → Global Execution
↓
this

② Memory Phase

val1 → undefined
val2 → undefined
addNum → definition
result1 → undefined
result2 → undefined

③ Execution Phase

val1 ← 10
val2 ← 5
addNum →
result1 = 15

new variable environment + Execution thread

Delete

Memory Phase

val1 → undefined
val2 → undefined
total → undefined

Execution Context

num1 → 10
num2 → 5
total → 15

```
1 let val1 = 10
2 let val2 = 5
3 function addNum(num1, num2){
4   let total = num1 + num2
5   return total
6 }
7 let result1 = addNum(val1, val2)
8 let result2 = addNum(10, 2)
```


Screenflow File Edit Mark Clip Insert Actions Font Arrange View Window Help

New Tab X New Tab

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Execution Thread

Delete

Memory Phase

val1 → undefined
val2 → undefined
total → undefined

Execution Context

num1 → 10
num2 → 5
total → 15

Memory Phase

Execution Phase

NVE + thread

total

The diagram illustrates the execution flow of a program. It starts with a 'Memory Phase' where variables 'val1', 'val2', and 'total' are initially 'undefined'. This leads to an 'Execution Context' where 'num1' is 10, 'num2' is 5, and 'total' is 15. The 'Execution Thread' is shown with a 'Delete' box. The 'Execution Phase' follows, leading to the final state of 'total'. The 'NVE + thread' box is also present. Red arrows and circles highlight the flow and the final state of 'total'.

ScreenFlow: File Edit Mark Clipboard Actions Font Arrange View Window Help

New Tab X New Tab

Search Google or type a URL

9:41 AM Tue 9 Jan

Memory Phase

Execution Phase

Thread

Lifo

three()

two()

one()

Global Exec

The diagram is drawn on a dark grid background. At the top, a horizontal line is divided into three sections. The first section is labeled 'Memory Phase' with an arrow pointing down to it. The second section is labeled 'Execution Phase' with an arrow pointing down to it. The third section is labeled 'Thread' with a '+' sign above it. Below the 'Execution Phase' section, there is a vertical stack of four boxes. The top three boxes are labeled 'three()', 'two()', and 'one()' from top to bottom. The bottom box is labeled 'Global Exec'. To the right of this stack, the word 'Lifo' is written. The presenter is visible in the bottom left corner, holding a white marker.