

Function is an object

Thursday, March 10, 2022 3:30 PM

- In JavaScript a function is considered as an object of type 'function'

```
basic-js > JS demo11-functionobject.js > ...
1
2
3 function plus(x,y){
4     return x+y;
5 }
6
7 console.log('typeof plus',typeof plus);
8
9
10
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

D:\MyWorks\Corporate\202203-infogain-react\basic-html-css-js>node "d:\MyWorks\Corporate\202203-infogain-react\basic-html-css-js\basic-js\demo11-functionobject.js"

typeof plus function

D:\MyWorks\Corporate\202203-infogain-react\basic-html-css-js>

Function like any other type can be assigned to a variable

```
//function has a type of 'function'
console.log('typeof plus',typeof plus);

//function can be referred by a variable
var add = plus;

console.log('typeof add',typeof add);

//a variable referring to a function can be used as function parameter
console.log('add(2,9)',add(2,9));
```

- A variable referring to a function can be used as function

Creating a function and assigning it to variable at the same time

```
20
21
22
23
24
25 var minus = function subtract(x,y){
26     return x-y;
27 }
28
29 console.log('typeof minus',typeof minus);
30
31 console.log('minus(5,2)',minus(5,2));
32
33 console.log('typeof subtract',typeof subtract);
34
35 console.log('subtract(5,2)',subtract(5,2));
36
37
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

D:\MyWorks\Corporate\202203-infogain-react\basic-html-css-js>node "js\demo11-functionobject.js"

typeof plus function

typeof add function

add(2,9) 11

typeof minus function

minus(5,2) 3

typeof subtract undefined

- minus refers to a function subtract that was created a
- minus is attached to global/window object and will be available for the code
- 'subtract' was directly assigned to 'minus'
 - It was never added to global / window object
- It is not available for use after assignment to minus

Do we need the name 'subtract'?

- Since it is not used anywhere we don't need the name subtract in our code
- We can create an un-named or anonymous function

How do we write Javascript functions

Traditional Style

```
function plus(x,y){  
  |   return x+y;  
}
```

Anonymous Function Style

```
var minus = function (x,y){  
  |   return x-y;  
}
```

- Here reference minus can refer to any other function later
- PREFERRED SYNTAX!

Functions are just like any other type

- They have their own name
- They can be assigned to variable
- They can be stored in an array
- They can be passed as an argument to another function