

# Closures #

func bundled along with the  
reference to its lexical env.

or

reference to its surrounding  
state / lexical env.

1. Closure ka istemaal hum classes se pehle karte the.
2. taki hum data members ko private bana sake jisse bahar ka banda uski value ko directly change na kar sake.

object ke ander se agar  
hum uss key ko access  
kare jo uske ander nahi  
hai toh hume undefined  
milega.

Prototypes

Sachin X

if you try to access the property of an object,  
then JS will firstly find it inside that object,  
then, if not found, it will go to its Prototype.

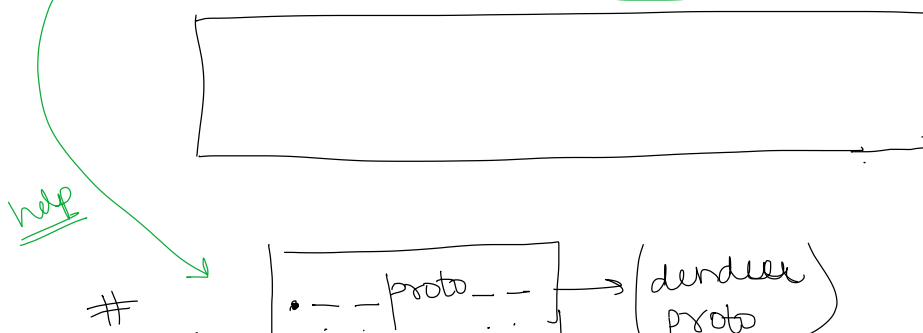
✓ Prototype → it is also another object which  
is used as a fallback source of properties

fallback means => agar  
key, object m nahi milta  
hai toh fallback karega  
matlab parent object m  
jaake dekhega.

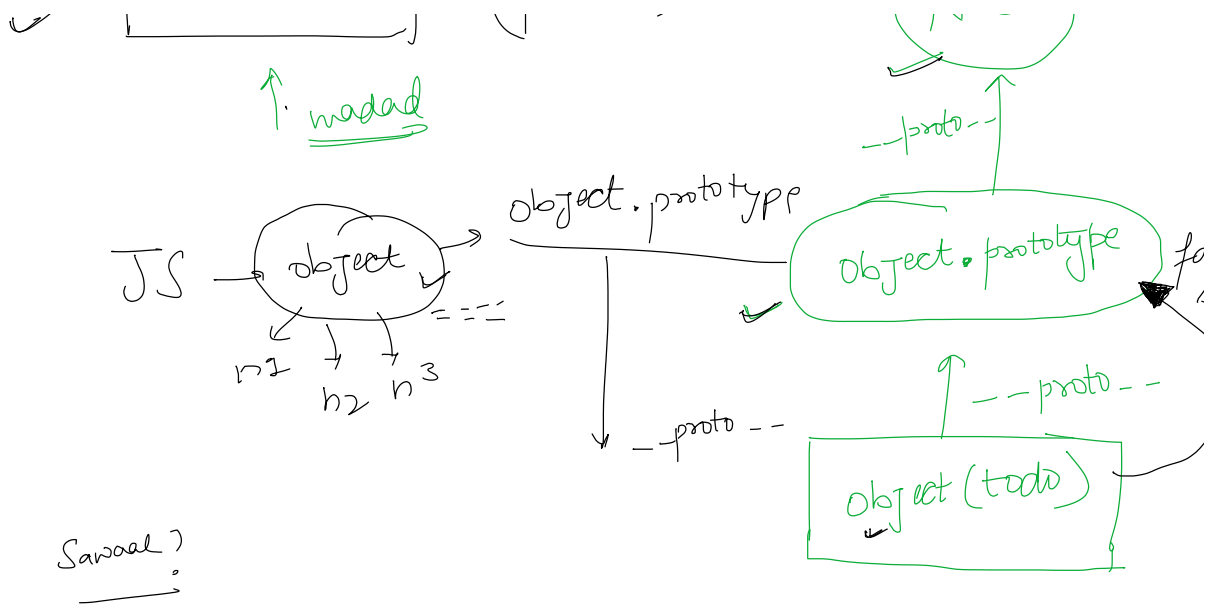
toString() → todo object X

↓ what is its  
prototype ?

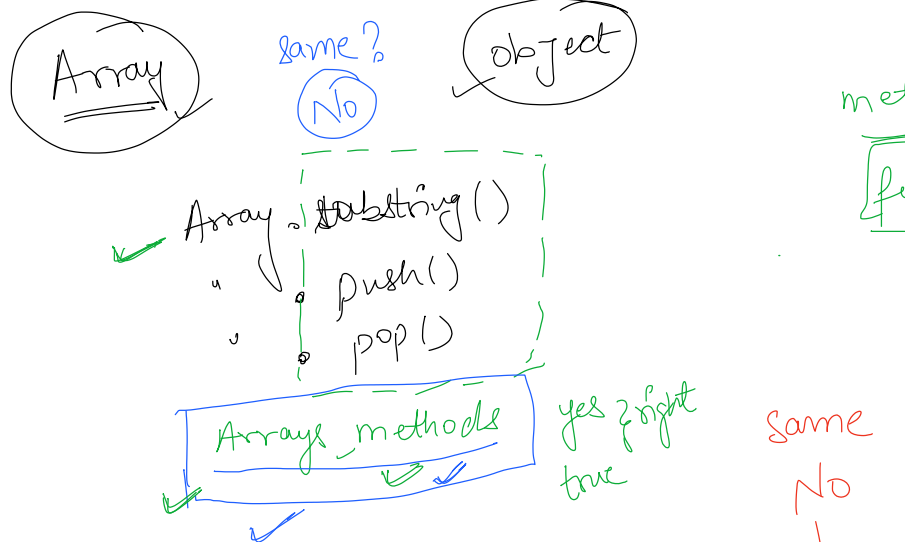
Agar mujhe kisi ka prototype  
check karna hai toh who will help  
me => \_\_proto\_\_  
Eg: arr.\_\_proto\_\_



root  
≠ NULL



prototypal chain => It is the complete chain from the null to the particular object.

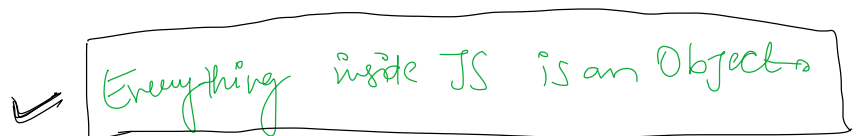


Array behind the scene converting itself into an object so that's why we are able to use the methods of the array.

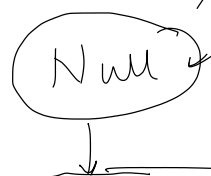
Array = let arr = [10, 20, 30, 40, 50];

↳ JS → an object → methods

arr.\_\_proto\_\_ == Array.prototype  
=> true

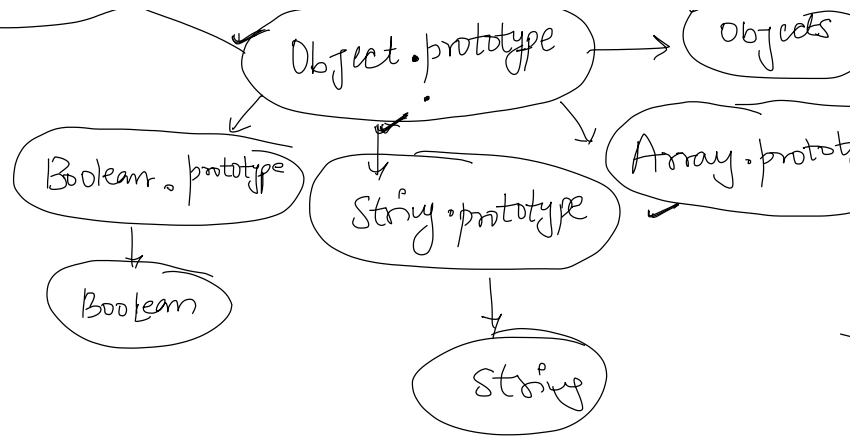


That's why we use all the methods which are defined inside Arrays prototype.

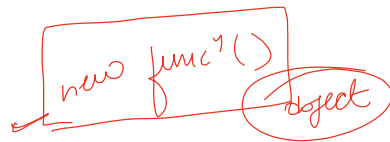
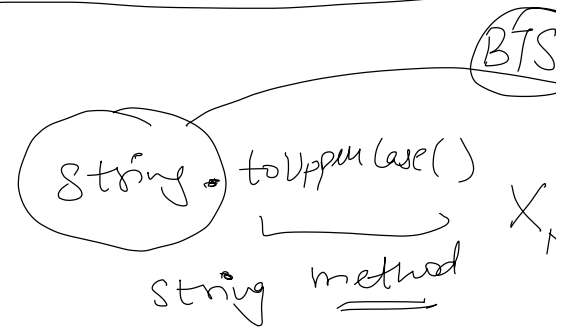


INHERIT

Prototype concept is same as the inheritance concept.



We can override the predefined methods of the object like `arr.reverse = function(){ return 10 + 20};` Here the reverse method of array is override with out defined function, but the changes will be tempory not permanent



jab hum function ke aage new keyword lagake function ko call karte hai toh constructor calling hoti hai jiski wajah se ek naya object create hota hai.

Constructor func's

new keyword before the func<sup>n</sup> calling is creating this func<sup>n</sup> as a constructor func<sup>n</sup> whose task/job is to create objects.

Convention → Behtar tarika naama dena hai

Compulsory X

→ Capitalize (Capital letter)

Kya hum iss object ke ander properties ko add kar sakte hai toh answer hai  
=> Yes add kar sakte hai.

Kaise add karenge ?

1. this keyword ki help se hum object m properties add kar sakte hai.
2. this keyword ki help se kaise add ho paa raha hai. => this keyword point karvayega uss object ko jo ki constructor calling ki wajah se ban raha hai.,

constructor function are used to create blueprint for creating object.

Agar hum chahate hai ki same function jo ki har object m same task perform karta hai toh hum uss function ko object ke prototype m add kara sakte hai taki rather then creating same function inside every object we put it into the prototype of that object so that we can directly access it from its parent / prototype object.

Jab bhi m constructor call karta hu toh uske prototype ka name kya hota hai exactly object ka name hi uska prototype hua.

```
function person(name,age){
  console.log("Inside Person object");
  console.log(this);
  this.name = name;
  this.age = age;
}

let a = new person("Amit",20);
console.log(a);

a.__proto__ == person.prototype
true

let a = [10,20,30];
a.__proto__ == Array.prototype
// true

a.__proto__.__proto__ == Object.prototype
// true
```