IP Assignment 4b

Roll No: 71 Batch : T14

Aim: Write a Program on inheritance, Iterators and Generators.

Code :

1. Iterators and Generator

```
 let arr1 = [1, 2, 3, 4, 5]; let
iterator = arr1[Symbol.iterator]();
// console.log(iterator.next())
console.log(iterator)

// for (const value of iterator) {
//   console.log(value);
// }  while (item = iterator.next(),
!item.done) {     console.log( item.value
);
  }

//generator
function* ng() {
let i = 0;     while
(true) {       yield
i;        i++;
    }
  }      let
darsh= ng();

console.log(darsh.next().value);
console.log(darsh.next().value);
console.log(darsh.next().value);
console.log(darsh.next().value);
```

2. Inheritance(includes same method code)

```
class Car {
    constructor(brand) {       this.carname = brand;
    }     present() {       return 'I have a ' + this.carname;
    }
}
```

```
   class Model extends Car {
constructor(brand, mod) {
super(brand);
this.model = mod;
    }     show() {       return this.present() + ', it
is a ' + this.model;
    }
}  const myCar = new Model("Tata",
"Harrier"); console.log(myCar.show());

//same methd class darshil {
speak() {
console.log("From t14");
    }
}  class T1 extends darshil {
speak() {
console.log("From T1");
    }
pspeak(){
        super.speak();

    }

}
const zxc= new darshil();
const it = new T1();

zxc.speak();
it.speak();
it.pspeak();
```

3. Code for first 10 prime numbers using iterators

```
let cond = true;

 let count
=0;
 function isprime(n){     for(let i
=2 ; i<(n/2)+1 ; i++){
if(n%i === 0) return false;
    }
    // if(n%2 === 0) return true;
return true;
} function* primegg(){
let n =2;
while(true){
if(isprime(n)){
yield n;
        }
n++;
    }
}  const pitr =
primegg();
 for (let i = 0; i < 10; i++) {
let nextPrime = pitr.next().value;
console.log(nextPrime);
  }
```

OUTPUT :

1. **Iterator and generator**

```
PS D:\GitClones\newIP> node "d:\GitClones\newIP\sc.js"
Object [Array Iterator] {}
1
2
3
4
5
Generatr ahead:
0
1
2
3
PS D:\GitClones\newIP>
```

2. **Inheritance**

```
PS D:\GitClones\newIP> node "d:\GitClones\newIP\sc.js
                       node "d:\GitClones\newIP\sc.js"
I have a Tata, it is a Harrier
From t14
From T1
From t14
PS D:\GitClones\newIP>
```

3. **Prime numbers using iterator**

```
                       node "d:\GitClones\newIP\sc.js"
2
3
5
7
11
13
17
19
23
29
PS D:\GitClones\newIP>
```