1. JSON方法实现

```
//_tmp和result是相互独立的，没有任何联系，有各自的存储空间。
let deepClone = function (obj) {
    let _tmp = JSON.stringify(obj);//将对象转换为json字符串形式
    let result = JSON.parse(_tmp);//将转换而来的字符串转换为原生js对象
    return result;
};

let obj1 = {
    weiqiujaun: {
        age: 20,
        class: 1502
    },
    liuxiaotian: {
        age: 21,
        class: 1501
    }
};

let test = deepClone(obj1);
console.log(test);
```

2.用for...in实现遍历和复制

```
function deepClone(obj) {
    let result = typeof  obj.splice === "function" ? [] : {};
    if (obj && typeof obj === 'object') {
        for (let key in obj) {
            if (obj[key] && typeof obj[key] === 'object') {
                result[key] = deepClone(obj[key]);//如果对象的属性值为object的时候，递归调用
deepClone,即在吧某个值对象复制一份到新的对象的对应值中。
            } else {
                result[key] = obj[key];//如果对象的属性值不为object的时候，直接复制参数对象的每一个键
值到新的对象对应的键值对中。
            }

        }
        return result;
    }
    return obj;
}

let testArray = ["a", "b", "c", "d"];
let testRes = deepClone(testArray);
console.log(testRes);
console.log(typeof testRes[1]);

let testObj = {
```

```
    name: "weiqiujuan",
    sex: "girl",
    age: 22,
    favorite: "play",
    family: {brother: "son", mother: "haha", father: "heihei"}
};
let testRes2 = deepClone(testObj);
testRes2.family.brother = "weibo";
console.log(testRes2);
```

3.利用数组的Array.prototype.forEach进copy

```
let deepClone = function (obj) {
    let copy = Object.create(Object.getPrototypeOf(obj));
    let propNames = Object.getOwnPropertyNames(obj);
    propNames.forEach(function (items) {
        let item = Object.getOwnPropertyDescriptor(obj, items);
        Object.defineProperty(copy, items, item);

    });
    return copy;
};

let testObj = {
    name: "weiqiujuan",
    sex: "girl",
    age: 22,
    favorite: "play",
    family: {brother: "wei", mother: "haha", father: "heihei"}
}
let testRes2 = deepClone(testObj);
console.log(testRes2);
```

4.浅拷贝（使用object.assign方法）

```
let target=[];
let testArr=[2,3,5,8];
Object.assign(target,testArr);
console.log(target);
testArr.push(8);
console.log("我是原来的"+target+",我是现在的"+testArr);
```