```
object 2>> Notes
// //problem iw section Given an array find the unique items in the array
// // IW Problem1
// // var arr = ["Ramesh", "Suresh", "Ramesh", "Kamlesh", "Suresh", "Rupak"];
// //    let obj={};
// // let p;
// // let i;
// // for(i=0; i<arr.length; i++)
// // {
// //     obj[arr[i]]=1;
// // }
// // console.log(obj);


// //object_2 notes

// //let revise spread operator
// let arr=[3,34,5,5];
// let copied =[];
// copied=[...arr]; //copying the array's element

// console.log(copied);

// //similarly we can use spread operator to copy all the key values of one object
to another

// let obj1={
//     name : "nik",
//     age : "20",

// };
//  let obj2  ={
//     ...obj1
//  };
// console.log("the copied obj :",obj2);


// //we can also do this

// let obj3 ={
//     ...obj1,
//     hobby : "biking",
//     ismarried : false,
// };




// console.log("The obj3 =",obj3);
```

```
// //problem. given a string , print the number of tiems each character appears

// let str="bageshwar";
// let obj={};

// let i,key;
// let count=0,j;
// for(i=0; i<str.length; i++){
//  count =0;
//     for (j=0; j<str.length; j++)
//     {
//         if (str[i]===str[j])
//             {
//                 count+=1;
//             }

//     }


// key=str[i];

//     obj[key] =count;



// }

// console.log("obj is: ",obj);

//second method its easy


// let str = "bageshwar";
// let obj = {};

// let i, key;

// for (i = 0; i < str.length; i++) {

//     if (obj[str[i]] == undefined) {
//         obj[str[i]] = 1;

//     }
//     else {

//         obj[str[i]]++;
//     }
```

```
// }
// console.log(obj);



//problem.what is the frequency of each element (frequency mean no of times
something is appearing)

// let arr = [7, 2, 7, 7, 4, 2];

//step 1. we have to declare an empty object
//step 2 we have to assign the key pair if there the key is undifined
//step 3 . we have to update key value by one if there's already key is present
//step4.console.log(obj);


// let obj = {};
// let i;
// for (i = 0; i < arr.length; i++) {
//     if (obj[arr[i]] == undefined) {
//         obj[arr[i]] = 1;
//     }
//     else {
//         obj[arr[i]]++;
//     }



// }


// console.log(obj);



//problem find the sum of whose occ. is two  i the same array


//step 1. we have to declare a object (empty )
//assigning the value inside through accessinng array element
// if key is not there we have to assign
//if key is there we have to update  the key value

//at end we have to check each element key value if is equal to 2 we have to add
those key pairs
//we can take a new variable where we add those keys which value is ==2

// let arr = [7, 2, 7, 7, 4,4, 2];
// let obj={};
```

```
// let i,sum=0;
// for(i=0; i<arr.length; i++)
// {
//     if(obj[arr[i]]==undefined)
//     {
//         obj[arr[i]]=1;
//     }
//     else
//     {
//         obj[arr[i]]++;
//     }

// }
// console.log(obj);
// let key;
// for(key in obj){
//     if(obj[key]>=2)
//     {
//         // we can't write sum+=obj[key] bcs it will add the key value to sum but
we want to ad key so
//         // sum=sum+key; //bcs key is string and if you try to add key to sum it
will br concatinated together - so we first have to  convert keys to no
//         //using typecasting
//         sum=sum+Number(key);
//     }
// }
// console.log(sum);




//print the element whose occ. is 1
let a = [1, 4, 4, 5, 6, 4, 4, 6, 4, 7, 8, 8, 4, 3,];

//step1. we have to declare an empty object
//step2. we have to assign element of array one by one inside object
//step3 .if the element (key ) is already present there then we have to updte its
key value
//step 4. if not present we have to assign the key pair
//step 5 . we have to check if the key of object 's value ==1 if is equal to 1 then
we have to print it



// let obj = {};


// let i;
// for (i = 0; i < a.length; i++) {
```

```
//     if (obj[a[i]] == undefined) {
//         obj[a[i]] = 1;

//     }
//     else {
//         obj[a[i]]++;
//     }
// }

// let key;

// for (key in obj) {
//     if (obj[key] == 1) {
//         console.log(key); //we have to print the key not key value obj.a[key]
will print the key value


//     }
// }
```

```
//problem6.js ~something different  how you can save or store the details of 500
employes of a company


let emp_1 ={name:"chuunu" , age:  29, salery : 30000  };
let emp_2 ={name:"payal" , age:  36, salery : 23000 };
let emp_3 ={name:"nishat" , age:  26, salery : 30000  };
let emp_4 ={name:"kirti" , age:  23, salery : 39000  };
let emp_5 ={name:"rambhaju" , age:  90, salery : 35000  };
let emp_6 ={name:"sharma" , age:  55, salery : 100000  };
let emp_7 ={name:"gyan" , age:  46, salery : 87000};
let emp_8 ={name:"roshan" , age:  24, salery : 30000000  };
// .
// .
// .
// .
// .

//hint .. do you remember the attandence register case  did you built separate
resister for each  roll no .. or you built only one resister ...
//so dont yoy think you just have to creat only one variable employe and put all
the ppl details inside it ,,
//uptill now we saw concept of arrays inside object
```

```
//this concept will goes like : OBJECTS INSIDE ARRAY  --what is the benifits
benifits...suppose your boss asked you to give me the name of those employe whose
sallery is more than 30thousand
//dont you think i should run a loop unless i gothrough each objects and find one
by one ...


let emp_details500 =[
    {name:"chuunu" , age:  29, salery : 30000  },
    {name:"payal" , age:  36, salery : 23000 },
    {name:"nishat" , age:  26, salery : 30000  },
    {name:"kirti" , age:  23, salery : 39000  },                  //this is now a
array so it having index concept
    {name:"roshan" , age:  24, salery : 30000000  },
    //.
    //.
    //.
    //. and many more emp_details

];

//this is the way how our data is present on internet or we can say in database;


//now how can you acess the 3rd object of array ~ arrayname[indexno here it is 2
for 3rd object]   ----emp_details500[2];
console.log(emp_details500[2],"\n");


//now how you can print all emp details ~by running loop form 0th index till last
index

let loop_var;
for (loop_var=0; loop_var<=emp_details500.length-1; loop_var++){
console.log(emp_details500[loop_var]);
}




//what if you have to print sallery of 5th employe ~ emp_details[4]["sallery"] or
emp_details[4].salery

console.log("he sallery of 4th emp:",emp_details500[3].salery);

//what if you have to get the sallery of all employe ~using for loop and change
index no from 0th till last in console statement
```

```
// let i;
// for(i=0; i<emp_details500.length; i++)
// {
//     console.log(emp_details500[i].salery);
// }


//how to get employee name whose sallery more than 30 thousand ~ just by putting if condition in previous loop that checks if sallery is more than 30 thousand then
//print the name of emp







let i;
for(i=0; i<emp_details500.length; i++)
{
    if (emp_details500[i].salery >30000)
    {
        console.log(emp_details500[i].name);
    }


}






//problem6.js ~something different  how you can save or store the details of 500 employes of a company


let emp_1 ={name:"chuunu" , age:  29, salery : 30000  };
let emp_2 ={name:"payal" , age:  36, salery : 23000 };
let emp_3 ={name:"nishat" , age:  26, salery : 30000  };
let emp_4 ={name:"kirti" , age:  23, salery : 39000  };
let emp_5 ={name:"rambhaju" , age:  90, salery : 35000  };
let emp_6 ={name:"sharma" , age:  55, salery : 100000  };
let emp_7 ={name:"gyan" , age:  46, salery : 87000};
let emp_8 ={name:"roshan" , age:  24, salery : 30000000  };
// .
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//hint .. do you remember the attandence register case  did you built separate resister for each  roll no .. or you built only one resister ...
//so dont yoy think you just have to creat only one variable employe and put all the ppl details inside it ,,
//uptill now we saw concept of arrays inside object
//this concept will goes like : OBJECTS INSIDE ARRAY  --what is the benifits benifits...suppose your boss asked you to give me the name of those employe whose sallery is more than 30thousand
//dont you think i should run a loop unless i gothrough each objects and find one by one ...


let emp_details500 =[
    {name:"chuunu" , age:  29, salery : 30000  },
    {name:"payal" , age:  36, salery : 23000 },
    {name:"nishat" , age:  26, salery : 30000  },
    {name:"kirti" , age:  23, salery : 39000  },                  //this is now a array so it having index concept
    {name:"roshan" , age:  24, salery : 30000000  },
    //.
    //.
    //.
    //. and many more emp_details

];

//this is the way how our data is present on internet or we can say in database;


//now how can you acess the 3rd object of array ~ arrayname[indexno here it is 2 for 3rd object]   ----emp_details500[2];
console.log(emp_details500[2],"\n");


//now how you can print all emp details ~by running loop form 0th index till last index

let loop_var;
for (loop_var=0; loop_var<=emp_details500.length-1; loop_var++){
console.log(emp_details500[loop_var]);
}




//what if you have to print sallery of 5th employe ~ emp_details[4]["sallery"] or emp_details[4].salery
```

```
console.log("he sallery of 4th emp:",emp_details500[3].salery);

//what if you have to get the sallery of all employe ~using for loop and change
index no from 0th till last in console statement



// let i;
// for(i=0; i<emp_details500.length; i++)
// {
//     console.log(emp_details500[i].salery);
// }


//how to get employee name whose sallery more than 30 thousand ~ just by putting if
condition in previous loop that checks if sallery is more than 30 thousand then
//print the name of emp


let i;
for(i=0; i<emp_details500.length; i++)
{
    if (emp_details500[i].salery >30000)
    {
        // console.log(emp_details500[i].name); //dot notation
        console.log(emp_details500[i]["name"]);//bracket notations NOTE " write
under ""
    }


}






//proble.js ~  given
let product = [

{name:"samsung34 " , rating : 3.2 , price : 12000 },
{name:"macbook " , rating :4, price :180000  },
{name:"gold " , rating : 5 , price : 120000 },
{name:"lenovopideapad" , rating :5 , price : 48000 },

];

//print the name of those products whose  rating is more than 4.0 or equal to it
let x;
for (x=0; x<product.length; x++){
```

```
if(product[x]["rating"]>=4.0)
{
    console.log(product[x].name);
}


}



//problem8.js !! ~    you are given two array  the first array contain the name of product and their price is stored in the second array
//you have to print their name and price together  in one statement

let products =["samsung34" ,"mackbook" , "gold" , "lenovoideapad"];
let price =[12000, 18000, 120000, 48000];


//output be like
// {name:"samsung34 " , price : 12000 },
// {name:"macbook " , price :180000  },
// {name:"gold " ,  price : 120000 },
// {name:"lenovopideapad" , price : 48000 },

//==>>
//lets make story first
```