Name - Yash Lakhtariya
Enrollment number - 21162101012
Branch - CBA Batch - 41
FET Practical 5
Code Link for all practicals :
https://github.com/yashslakhtariya/sem4practicals/tree/main/FET

Institute of Computer Technology
B. Tech. Computer Science and Engineering

Sub: FET (2CSE410)

Practical - 5 (Using Functions and Objects)

Objective: To understand the usage of functions and objects in JavaScript.

Exercise 1:

In a part of development an algorithm for security, there is a need to get a perfect number greater than a number entered by the end-user. Note : According to Wikipedia : In number theory, a perfect number is a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself (also known as its aliquot sum). OR Equivalently, a perfect number is a number that is half the sum of all of its positive divisors (including itself).

HTML :

```html
<!DOCTYPE html>
<head>
    <title>FET Practical 5 by YSL</title>
</head>
<body>
    <script src="p5e1.js"></script>
</body>
</html>
```

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JS :

```
function prfctornot(n)
{
   sum = 1;
   for (let i=2; i*i<=n; i++)
   {
       if (n%i==0)
       {
           if(i*i!=n)
               sum = sum + i + n/i;
           else
               sum=sum+i;
       }
   }

   if (sum == n && n != 1)
       return true;
   return false;
}

nmbr = prompt("Enter a number to find perfect numbers greater than it :
");
while(!Number.isInteger(parseInt(nmbr)))
{
```

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```
    alert("Invalid Input!");
    nmbr = prompt("Enter a valid number : ");
}
nmbr = parseInt(nmbr);

let i = nmbr+1;
while(i > nmbr)
{
    if(prfctornot(i))
    {
        alert(`The perfect number greater than ${nmbr} is ${i}`);
        break;
    }
    i++;
}
```

Output :

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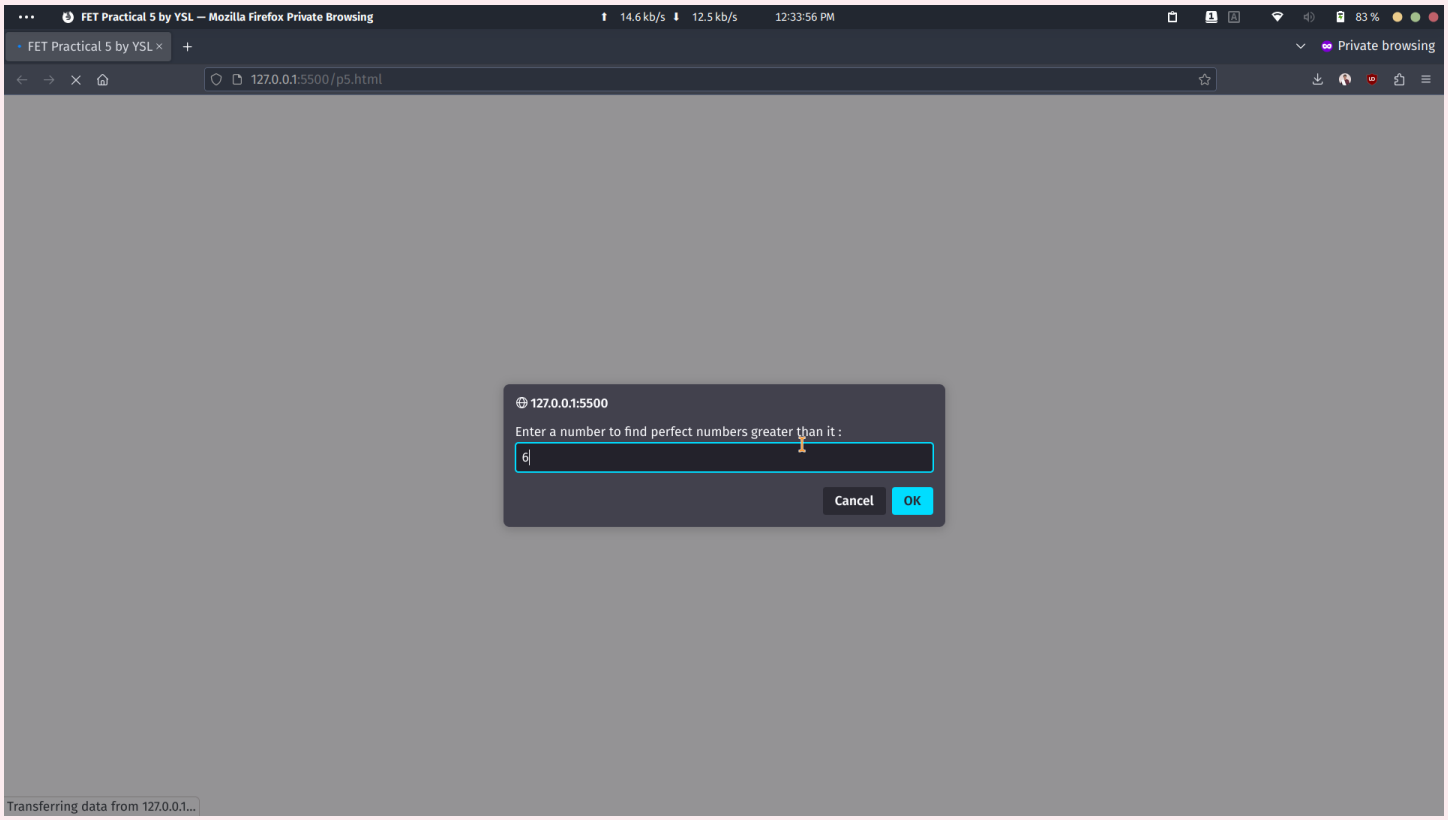

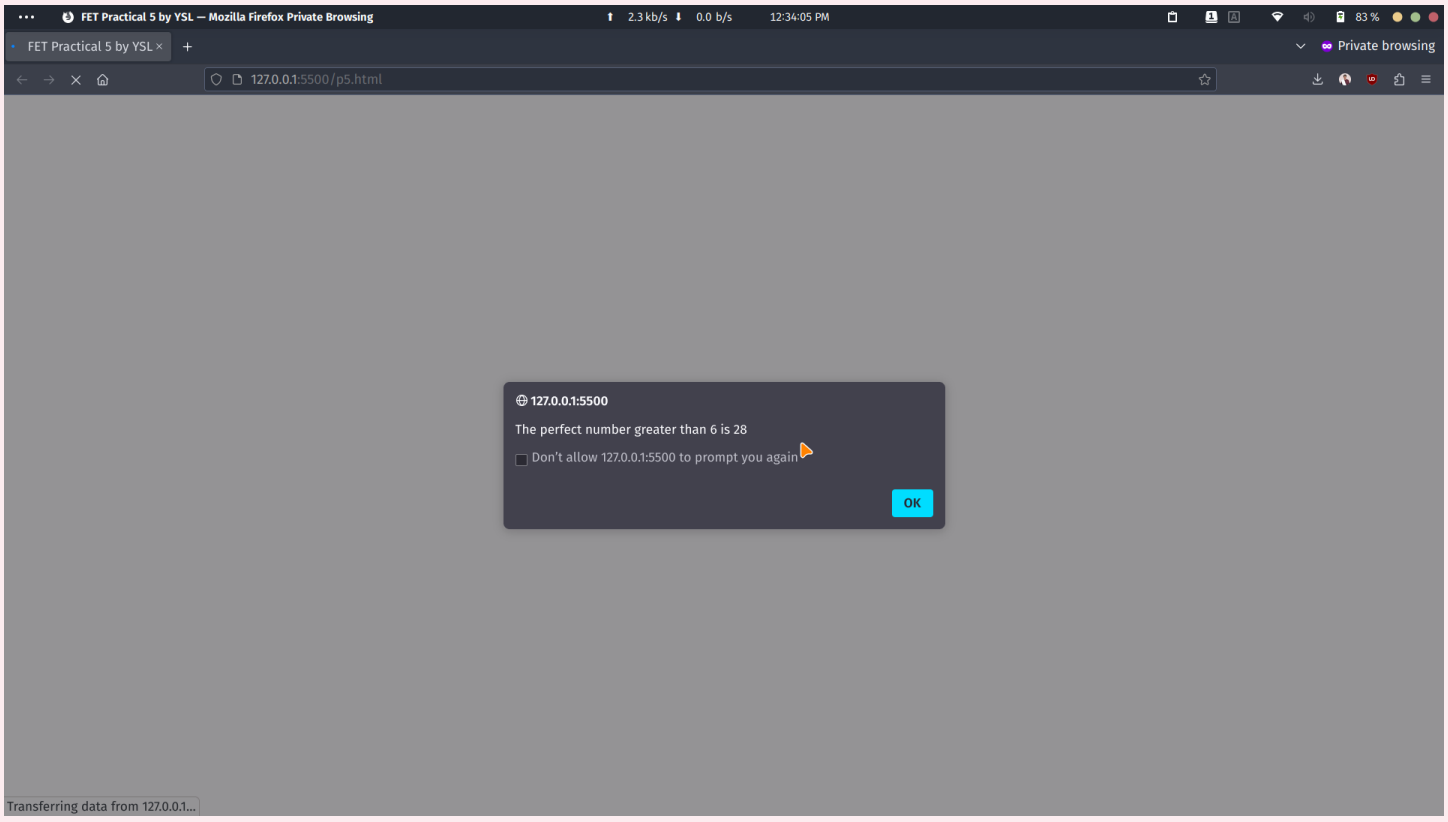

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Exercise 2:

In an application of computing salaries of the employees, consider name, salary and number of working days of an employee to calculate his salary. (Create an object having 2 properties, namely name and working days per month, for each employee. Then compute the salary of each employee.)
** Take at least 5 employees in an object.

HTML :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>FET Practical 5 by YSL</title>
</head>
<body>
    <script src="p5e2.js"></script>
</body>
</html>
```

JS :

```
let slryperday = 6400;

function emp(name, wdpm)
{
    return {
```

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```
        name: name,
        wdpm: wdpm
    };
};

function getslry(wdpm)
{
    return slryperday * wdpm;
};

let emp1 = emp("Yash",22);
let emp2 = emp("Yash2",19);
let emp3 = emp("Yash3",16);
let emp4 = emp("Yash4",15);
let emp5 = emp("Yash5",10);

function show(empl)
{
    alert(`Employee Name : ${empl.name}\nEmployee Salary :
${getslry(empl.wdpm)}`);
};

show(emp1);
show(emp2);
```

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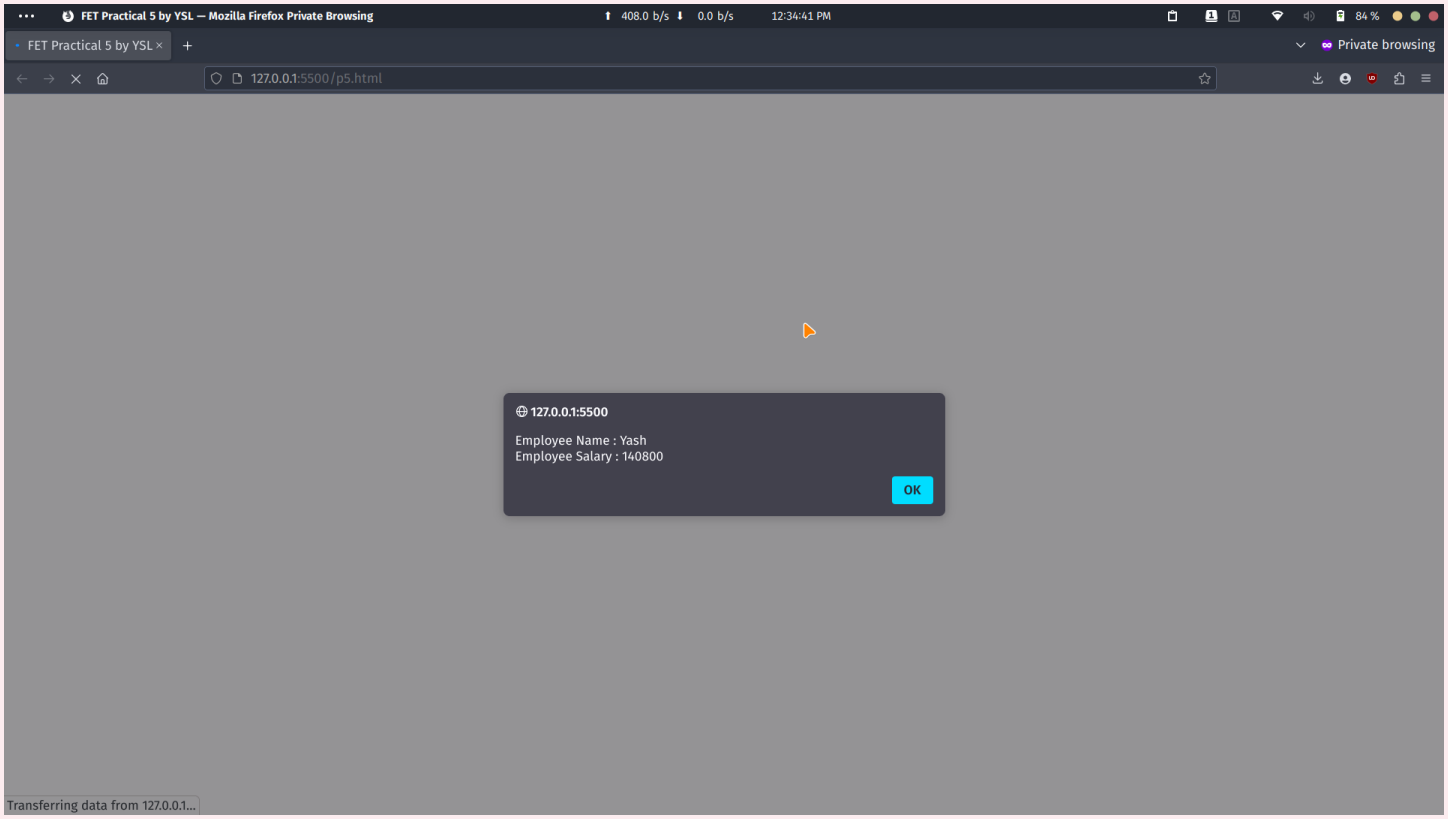
```
show(emp3);

show(emp4);

show(emp5);
```

Output :



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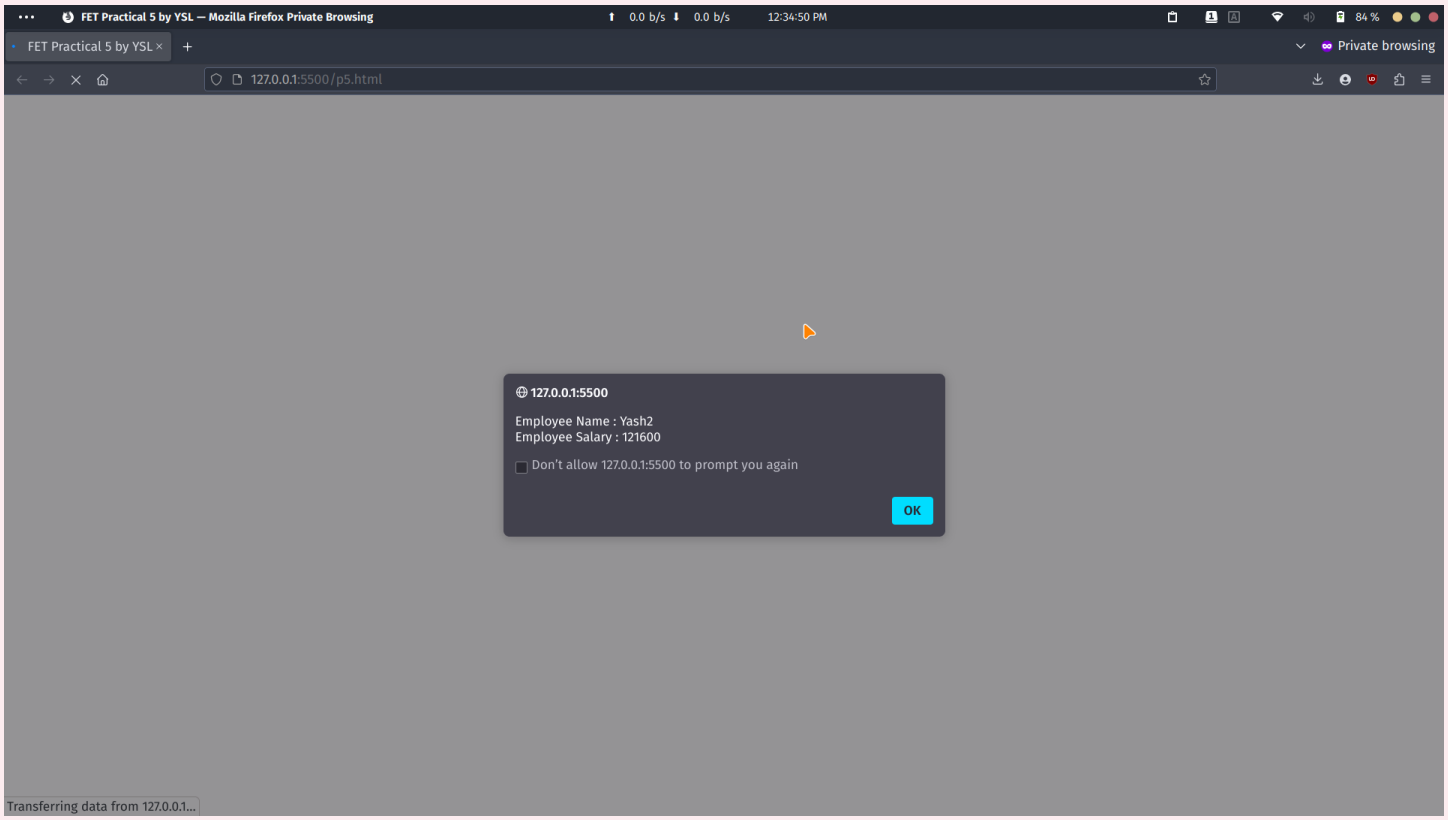

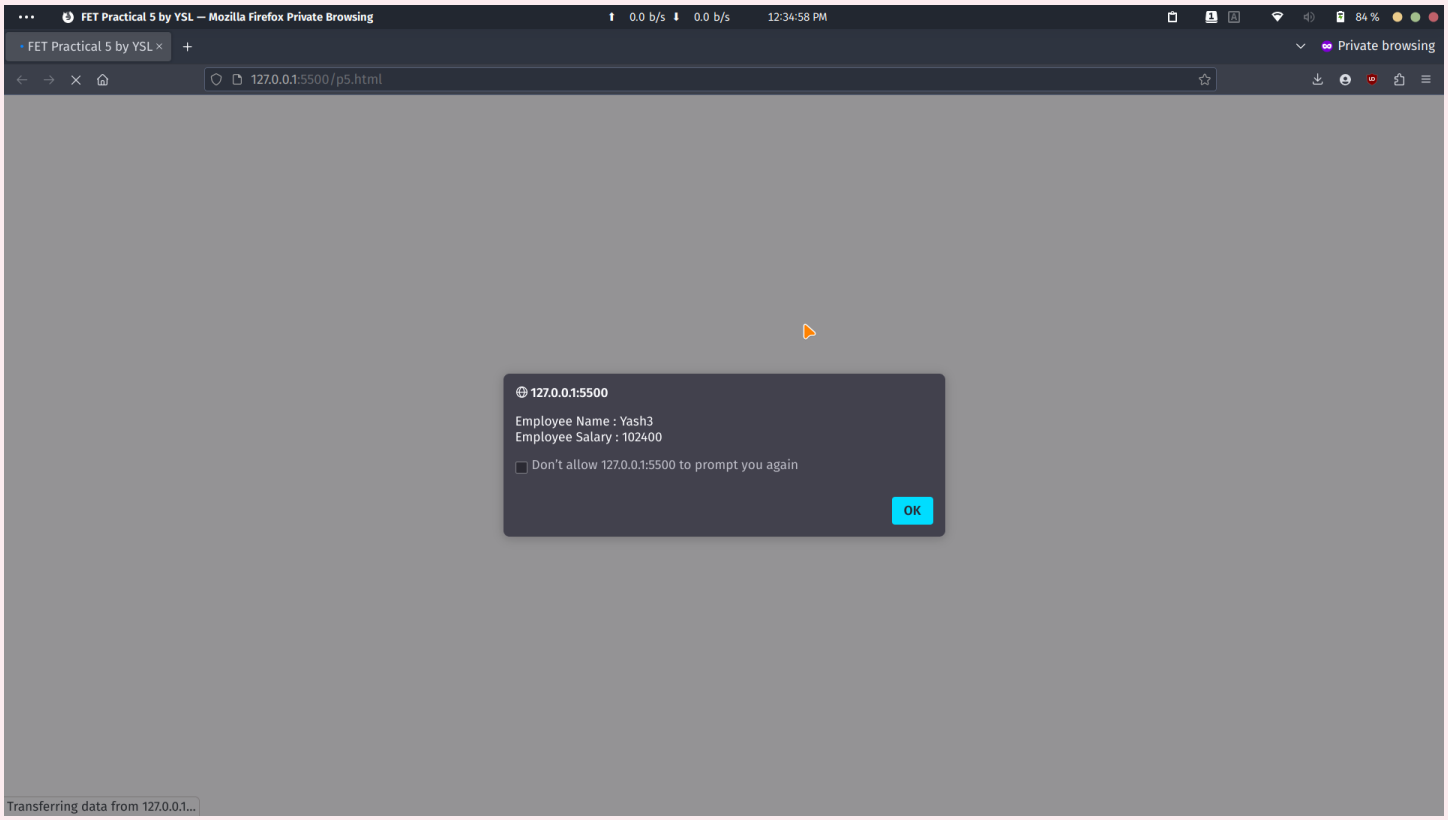

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