

# FET PRACTICAL – 5

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## *Exercise 1:*

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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).

**Example :** The first perfect number is 6, because 1, 2, and 3 are its proper positive divisors, and  $1 + 2 + 3 = 6$ . Equivalently, the number 6 is equal to half the sum of all its positive divisors:  $(1 + 2 + 3 + 6) / 2 = 6$ . The next perfect number is  $28 = 1 + 2 + 4 + 7 + 14$ . This is followed by the perfect numbers 496 and 8128.

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## *Code:-*

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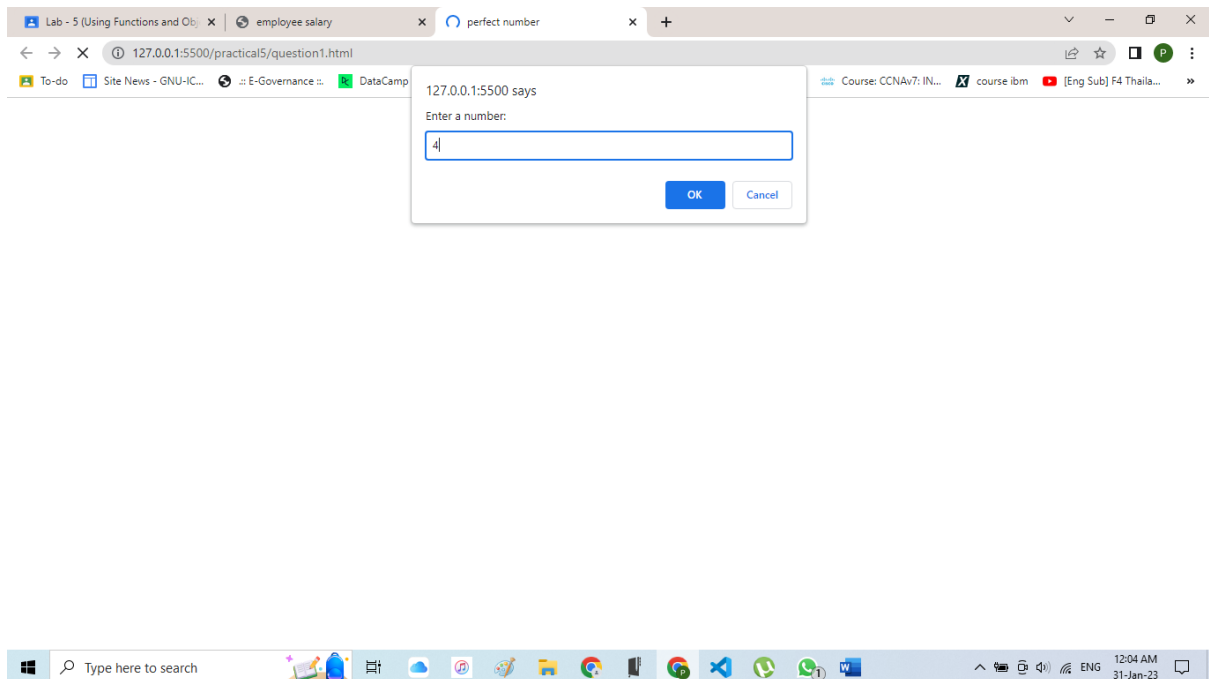
```
<html>
<head>
  <title>perfect number</title>
  <script>
    /*function FindPerfectNum() {*/
      let num = prompt("Enter a number: ");
      while(true)
      {
        let sum = 0
        for(let i=1 ; i <= num ; i++)
        {
          if(num % i == 0)
          {
            sum += i;
          }
        }
        if((sum)/2 == num)
        {
          alert('The next perfect number is: ' + num)
          break;
        }
        else
```

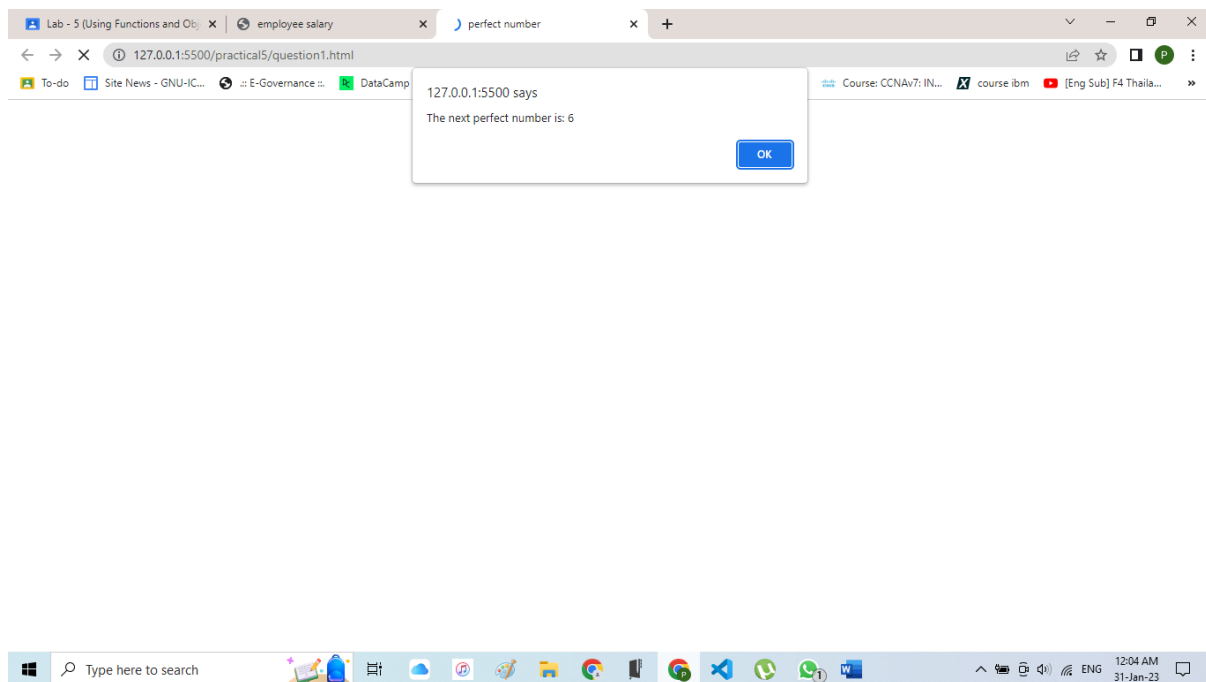
```
{  
  num++;  
}  
}  
/*}*/  
</script>  
</head>  
<body>perfect number</body>  
</html>
```

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*Output:-*

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### ***Exercise 2:***

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**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.**

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### ***Code:-***

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```
<html>
<head>
  <title>employee salary</title>

</head>
<body>
```

```
<p>for objects</p>
<p id="demo"> </p>
<p id="demo1"> </p>
<p id="demo2"> </p>
<p id="demo3"> </p>
<p id="demo4"> </p>
<script>
    let emp1={Name:"pari",Work_days:25};
    let emp2={Name:"dhruvi",Work_days:28};
    let emp3={Name:"yash",Work_days:18};
    let emp4={Name:"om",Work_days:10};
    let emp5={Name:"surbhi",Work_days:5};
    let salary_perday=500;
    document.getElementById("demo").innerHTML="Name: " + emp1.Name + "
Salary: "+emp1.Work_days*salary_perday;
    document.getElementById("demo1").innerHTML="Name: " + emp2.Name + "
Salary: "+emp2.Work_days*salary_perday;
    document.getElementById("demo2").innerHTML="Name: " + emp3.Name + "
Salary: "+emp3.Work_days*salary_perday;
    document.getElementById("demo3").innerHTML="Name: " + emp2.Name + "
Salary: "+emp4.Work_days*salary_perday;
    document.getElementById("demo4").innerHTML="Name: " + emp2.Name + "
Salary: "+emp5.Work_days*salary_perday;

</script>
</body>
</html>
```

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**Output:-**

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