

## Practical 6

**Aim 1:** Demonstrate Class, Properties, Methods and Objects

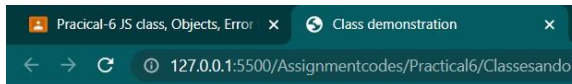
**Program:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Class demonstration</title>
</head>
<body>
  <h1>Class demonstration</h1>
  <script>
    class Student{
constructor(name,ID,dob){
this.name=name;
this.ID=ID;
this.dob=dob;
}
getDetails(){
return "Name:
"+this.name+" ID: "+this.ID+" Date of birth:
"+this.dob;
}
getAge(){
var
today=new Date();
var birthDate=new Date(this.dob);
var age=today.getFullYear()-birthDate.getFullYear();
var m=today.getMonth()-birthDate.getMonth();
if(m<0 || (m===0 && today.getDate()<birthDate.getDate())){
age--;
}
return "The age of student is "+age;
}
}

    let p1=new Student("John","21IT080","11-06-2003");
let p2=new Student("Mary","21IT095","11-06-2002");
document.write(p1.getDetails()+"<br>" +p1.getAge()+"<br>");
document.write(p2.getDetails()+"<br>" +p2.getAge()+"<br>");
//Taking input from user using prompt
// let name=prompt("Enter the name of student");
// let ID=prompt("Enter the ID of student");

// let dob=prompt("Enter the date of birth of student");
```

```
// let p3=new Student(name,ID,dob);  
// document.write(p3.getDetails()+"<br>" +p3.getAge()+"<br>");  
</script>  
</body>  
</html>
```

**Output:**

## Class demonstration

Name: John ID: 21IT080 Date of birth: 11-06-2003  
The age of student is 19  
Name: Mary ID: 21IT095 Date of birth: 11-06-2002  
The age of student is 20

**Aim 2:** Demonstrate how to work with JSON File

**Program:**

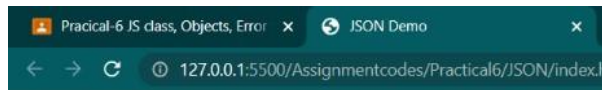
```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>JSON Demo</title>
</head>
<body>
  <h3>Demonstrating how to work with JSON</h3>
  <p><i>JSON stands for JavaScript Object Notation</i></p>
  <p><i>Curly braces hold objects, Square brackets hold arrays</i></p>
  <h5>Creating object from JSON string having array</h5>
  <p id="demo"></p>
  <h5>Javascript JSON Methods</h5>
  <p id="demo1"></p>
  <p id="demo2"></p>
  <script src="jsdemo.js"></script>
</body>
</html> //jsdemo.js
let
text='{"employees":["+
    '{"firstName":"Virat", "lastName":"Kohli"},'+
    '{"firstName":"Sachin", "lastName":"Tendulkar"},'+
    '{"firstName":"Rohit", "lastName":"Sharma"}]}'

    const obj=JSON.parse(text);
document.getElementById("demo").innerHTML=obj.employees[0].firstName+"
"+obj.employees[0].lastName+"<br>"+obj.employees[1].firstName+"
"+obj.employees[1].lastName+"<br>"+obj.employees[2].firstName+"
"+obj.employees[2].lastName;
    let student='{"name":"Virat", "age":32, "city":"Delhi"}';      const
obj1=JSON.parse(student);
document.getElementById("demo1").innerHTML="Convert string in JSON format using
parse() method<br>"+ obj1.name;
    let student2='{name:"Virat", age:32, city:"Delhi"}';
const obj2=JSON.stringify(student2);
document.getElementById("demo2").innerHTML+="<br>Convert JSON object to string
using stringify() method<br>"+ obj2;

```

**Output:**



### Demonstrating how to work with JSON

*JSON stands for JavaScript Object Notation*

*Curly braces hold objects, Square brackets hold arrays*

#### Creating object from JSON string having array

Virat Kohli  
Sachin Tendulkar  
Rohit Sharma

#### Javascript JSON Methods

Convert string in JSON format using parse() method  
Virat

Convert JSON object to string using stringify() method  
{name:"Virat", age:32, city:"Delhi"}

**Aim 3:** Spoural Registration Form Validation (Error object and try...catch..)

### Program:

```
<script src="validate.js"></script> function display(){
try{
    var name =
document.getElementById("name").value;
document.getElementById("email").value;
var email =
var phone
= document.getElementById("phone").value;
```

```
        var college = document.getElementById("college").value;        var
year = document.getElementById("year").value;        var branch =
document.getElementById("branch").value;        if(name == "" || email == ""
|| phone == "" || college == "" || year ==
"" || branch == ""){            throw "Please
fill all the fields";
        }        else if(!validateEmail(email)){
throw "Please enter a valid email address";
        }        else if(!validatePhone(phone)){
throw "Please enter a valid phone number";
        }        else{
alert("Registration Successful");
        }
    }
    catch(err){
alert(err);
    }
}
function validateEmail(email)
{    var re =
/\S+@\S+\.\S+\/;    return
re.test(email);
} function
validatePhone(phone)
{    var re = /^(\d{3})\)?[- ]?(\d{3})[-
]?(\d{4})$/;    return re.test(phone); }
```

**Output:**

The screenshot shows a web browser window with two tabs: 'JSON Demo' and 'Validation'. The address bar shows the URL 'http://127.0.0.1:5500/validation/index.html'. A modal dialog box is displayed in the center, containing the text '127.0.0.1:5500 says' and 'Please fill all the fields', with an 'OK' button. Below the dialog, a registration form titled 'Register for the event' is visible. The form includes input fields for Name, Email, Phone, College, Year, and Branch, each preceded by a label. A submit button is located at the bottom of the form. The background of the page is dark with some text visible, including 'The most anticipated event for' and 'ary 23 to February 11, 2k23..'

**Conclusion:** We can also define many methods along with using constructor in classes. JavaScript Object Notation (JSON) is a standard text-based format for representing structured data based on JavaScript object syntax.

**Course outcome:** Learnt about class, objects and inheritance of classes, try `..catch` and error object and how to work with JSON file.