Practical 6

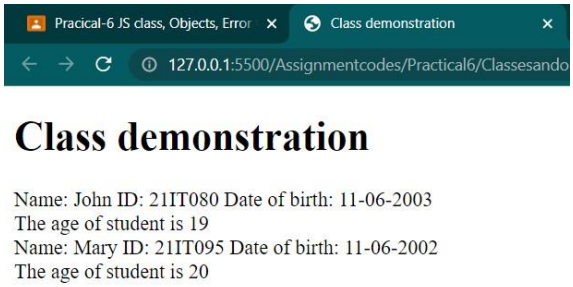
Aim 1: Demonstrate Class, Properties, Methods and Objects

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:

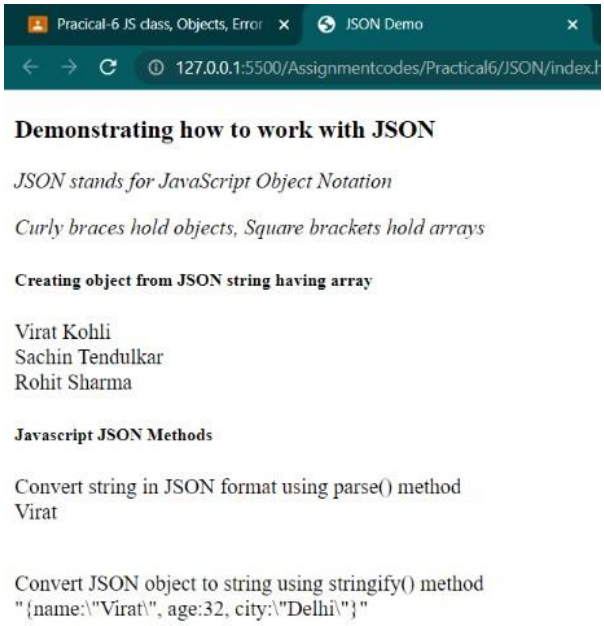


Aim 2: Demonstrate how to work with JSON File

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="jsondemo.js"></script>
</body>
</html> //jsondemo.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:



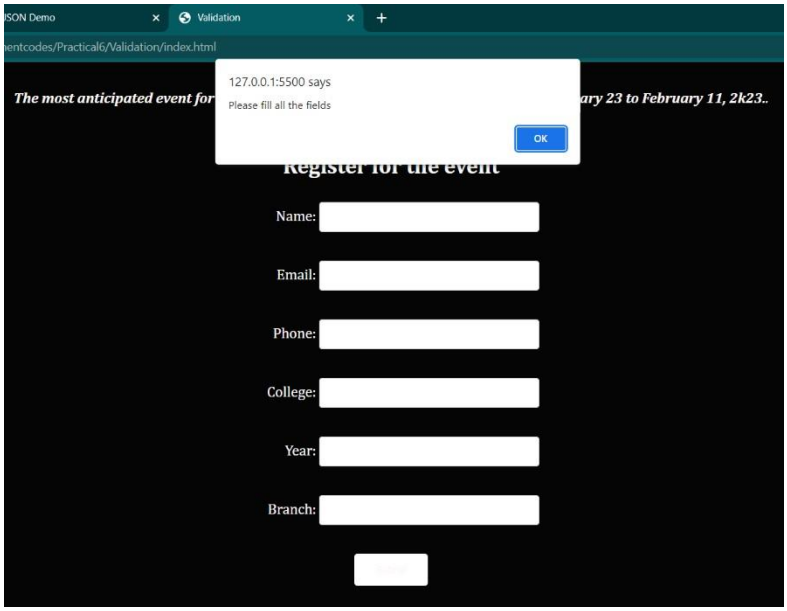
Aim 3: Spoural Registration Form Validation (Error object and try…catch..)

Program:

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



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.