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Class :MSC –II

Indira College of Commerce and Science, Pune
M.Sc. II
Web Frameworks
Academic year 2022-23
ASSIGNMENT-1

1) Create an HTML form that contains the Student Registration details and write a JavaScript to validate Student's first and last name as it should not contain other than the alphabet and the age should be between 18 to 50.

```html
<HTML>
<head>
<title>Student Registration</title>
</head>
<body>
<h3>Fill the Form</h3>

<label>First Name:</label>
<input type="text"  id="fn" name="fname" size="25"><br><br>

<label>Last Name:</label>
<input type="text" id="ln" name="lname" size="25"><br><br>

<label>Phone No:</label>
<input type="text" id="mob" name="pno" size="25"><br><br>

<label>Age:</label>
<input type="text" id="ag" name="age" size="10"><br><br>

<label>Roll No:</label>
<input type="text"  name="rollno" size="10"><br><br>

<label>College Name:</label>
<input type="text" name="college" size="25"><br><br>

<label>Course:</label>
<input type="text" name="course" size="25"><br><br>

<label>Email Id:</label>
```

```html
<input type="text" id="el" name="email" size="25"><br><br>

<label>Password:</label>
<input type="password" id="p1" name="pass" size="25"><br><br>

<label>Confirm Password:</label>
<input type="password" id="p2" name="pass" size="25"><br><br>



<input  type="submit" value="submit" onclick="create_account()"/>




<script type="text/javascript">
    function create_account()
    {
        var fn=document.getElementById("fn").value;
        var ln=document.getElementById("ln").value;
        var el=document.getElementById("el").value;
        var ag=document.getElementById("ag").value;
        var p1=document.getElementById("p1").value;
        var p2=document.getElementById("p2").value;
        var mob=document.getElementById("mob").value;


        var letters=/^[A-Za-z]+$/;
        var email_val=/^([a-zA-Z0-9_\.\-])+\@(([a-zA-Z0-9\-])+\.)+([a-zA-Z0-
9]{2,4})+$/;

        if(fn==''||ln==''||mob==''||el==''||ag==''||p1==''||p2=='')
        {
            alert("Please Enter each Details Correctly");
        }
        else if(!letters.test(fn))
        {
            alert('Name is incorrect must contain Alphabates only');
        }
        else if(!letters.test(ln))
        {
            alert('Name is incorrect must contain alphabats only');
        }

        else if (!email_val.test(el))

        {
```

```
            alert('Invalid email format please enter valid email id');

        }

else if(ag < 18 || ag > 50)

{

alert("Age should be between 18 to 50");

}


else if(p1!=p2)

{

alert("Passwords not matching");

}

else if(document.getElementById("p1").value.length > 12)

{

alert("Password maximum length is 12");

}

else if(document.getElementById("p1").value.length < 6)

{

alert("Password minimum length is 6");

}

else{

alert("Your account has been created successfully...");

window.location="success.html";

}

    }
</script>
```

```
</body>
</HTML>
```

2) Create an HTML form that contains the Employee Registration details and write a JavaScript to validate DOB, Joining Date, and Salary.

```html
<!DOCTYPE html>
<html lang="en">
<head>

    <title>Ass2</title>
</head>
<body>
    <div align="center">
        <h1>Employee Registration</h1>

        <form onsubmit="return validate()" action="success.html">
            <table>
                <tr>
                    <td>First Name</td>
                    <td>
                        <input type="text" id="firstname" />
                    </td>
                </tr>
                <tr>
                    <td>Last Name</td>
                    <td>
                        <input type="text" id="lastname" />
                    </td>
                </tr>
                <tr>
                    <td>Date of Birth</td>
                    <td>
                        <input type="date" id="DOB" />
                    </td>
                </tr>
                <tr>
                    <td>Joining Date</td>
                    <td>
                        <input type="date" id="jndate" />
                    </td>
                </tr>
                <tr>
                    <td>Salary</td>
                    <td>
                        <input type="text" id="Salary" />
                    </td>
                </tr>
            </table>
            <input type="submit" value="Submit" />
        </form>
```
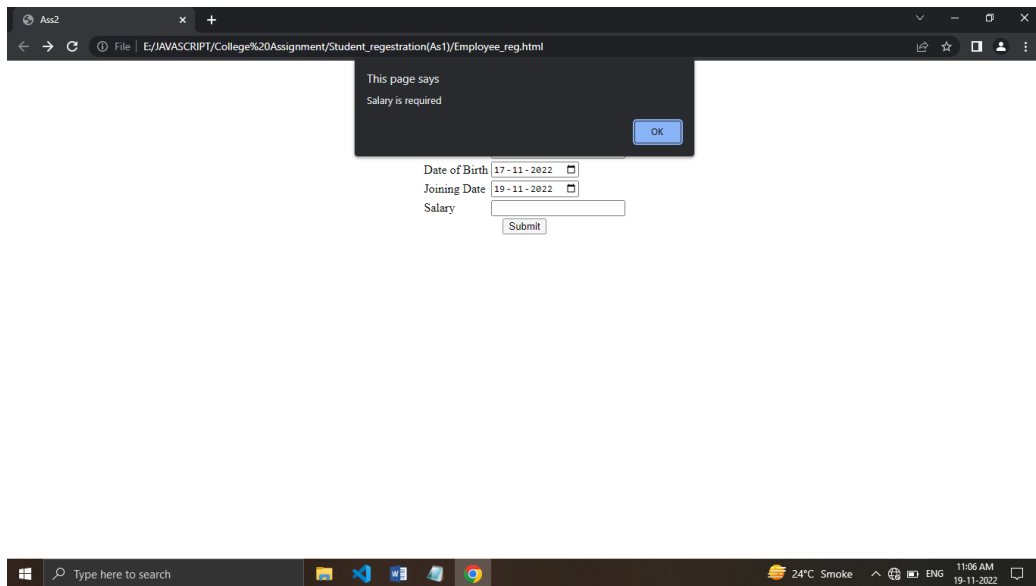
```html
        </div>
</body>

<script>
    function validate() {
        var firstname = document.getElementById("firstname").value;
        var lastname = document.getElementById("lastname").value;
        var DOB = new Date(document.getElementById("DOB").value);
        var jndate = new Date(document.getElementById("jndate").value);
        var Salary = document.getElementById("Salary").value;

        var date_format = /^(0[1-9]|1[0-2])\/(0[1-
9]|1\d|2\d|3[01])\/(19|20)\d{2}$/;

        if (firstname == "") {
            alert("First Name is required");
            return false;
        }else if (lastname == "") {
            alert("Last Name is required");
            return false;
        }else if (DOB == "") {
            alert("Date of Birth is required");
            return false;
        }else if (jndate == "") {
            alert("Joining Date is required");
            return false;
        }else if(jndate.getTime() < DOB.getTime()) {
            alert("Joining Date should be greater than Date of Birth");
            return false;
        }else if(Salary == "") {
            alert("Salary is required");
            return false;
        }else{
            return true;
        }
    }
</script>
</html>
```

3) Create an HTML form for Login and write a JavaScript to validate the email ID using Regular Expression.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Login Page</title>
    <link rel="stylesheet" href="Stylesheet.css" />
</head>
<body>
    <form action="" class="form">
        <h1>LOGIN</h1>
        <input type="email"  id="el" name="email" class="box"
placeholder="Enter Username" />
        <input type="password" name="password" class="box" placeholder="Enter
password" />
        <input type="submit" value="LOGIN" id="submit" onclick="account()"/>
    </form>



<script type="text/javascript">
    function account()
    {
        var el=document.getElementById("el").value;
        var email_val=/^([a-zA-Z0-9_\.\-])+\@(([a-zA-Z0-9\-])+\.)+([a-zA-Z0-
9]{2,4})+$/;
```

```
        if (!email_val.test(el))

        {

            alert('Invalid email format please enter valid email id');

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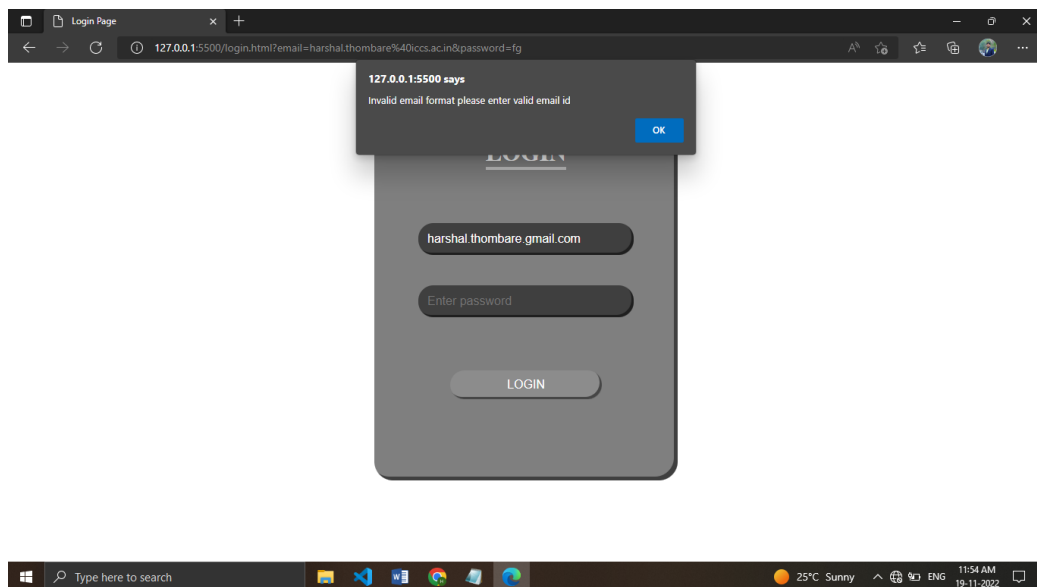

4) Create a Node.js file that will print the output "Hello World!" on the console

```
console.log("Hello World");
```
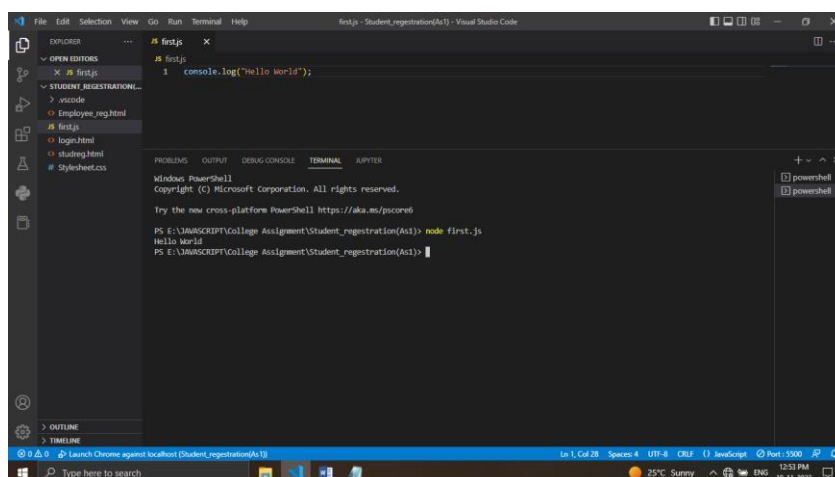
5) Create a Simple Web Server using node js.

```
var http = require('http');

http.createServer(function (req, res) {
  // add a HTTP header:
  res.writeHead(200, {'Content-Type': 'text/html'});
  res.write('Hello World!');
  res.end();
}).listen(8080);
```


6)Create a Node.js file that will convert the output "Hello World!" into upper-case letters.

```
var http=require('http');
var uc=require('upper-case');
http.createServer(function(req,res){
    res.writeHead(200,{'content-Type':'text/html'});
    res.write(uc.upperCase("Hello World!!!"));
    res.end();
}).listen(8081);
```

HELLO WORLD!!!

7) Using nodejs create a web page to read two file names from the user and append the contents of the first file into the second file

```javascript
var fs=require('fs');
fs.readFile('first.txt',function(err,data){
    fs.appendFile('second.txt',data,function(err){
        if(err) throw err;
        console.log('Saved!');
    });
});
```
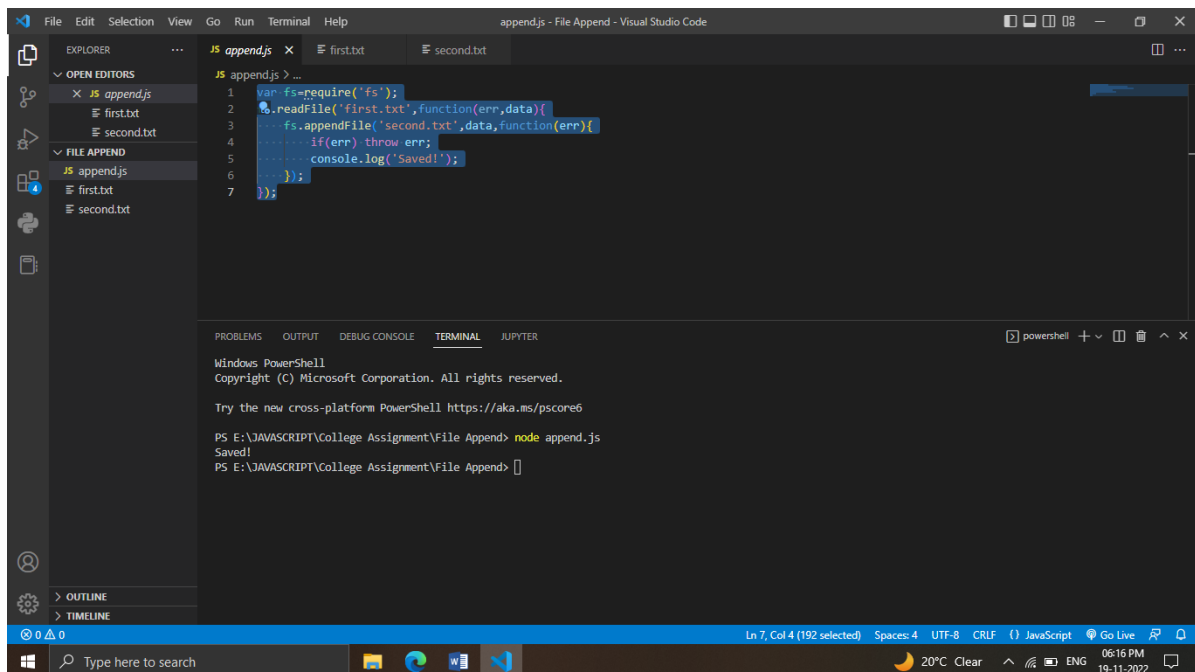
8) Create a Node.js file that opens the requested file and returns the content to the client. If anything goes wrong, throw a 404 error.

```javascript
var http=require('http');
var fs=require('fs');
http.createServer(function(req,res){
    fs.readFile('input.txt',function(err,data){
        if(err){
            res.writeHead(404,{'content-Type':'text/html'});
            return res.end("404 Not Found");
        }
        res.writeHead(200,{'content-Type':'text/html'});
        res.write(data);
        return res.end();
    });
}).listen(8080);
```
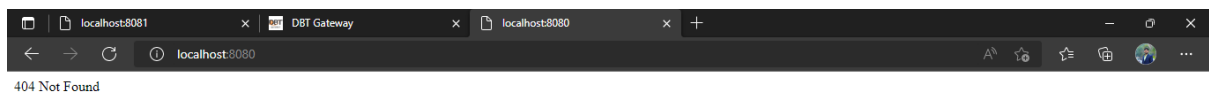

9) Write node js script to build Your Own Node.js Module. Use require ('http') module is a built-in Node module that invokes the functionality of the HTTP library to create a local server. Also use the export statement to make functions in your module available externally. Create a new text file to contain the functions in your module called, "modules.js" and add this function to return today's date and time

Ans:

build_node.js

```javascript
exports.myDateTime=function()
{
    return Date();
```

```
};
```

Demo_build.js

```javascript
var http=require('http');
var dt=require('./build_node');
http.createServer(function(req,res){
    res.writeHead(200,{'content-Type':'text/html'});
    res.write("The date and time are curentelly:"+dt.myDateTime());
    res.end();
}).listen(8001);
```


The date and time are curentelly:Sat Nov 19 2022 21:09:52 GMT+0530 (India Standard Time)

10) Create a js file named main.js for event-driven application. There should be a main loop that listens for events, and then triggers a callback function when one of those events is detected.

```javascript
var events=require('events');
var eventEmitter=new events.EventEmitter();
var connectHandler=function connected(){console.log('connection Sucessfull.');
eventEmitter.emit('data received');}
eventEmitter.on('connection',connectHandler);
eventEmitter.on('data received',function(){
    console.log('data received succesfully.');
});
eventEmitter.emit('connection');
console.log("programe Ended");
```

File Edit Selection View Go Run Terminal Help

JS Event.js ×

Student_regestration(As1) > JS Event.js > ...

```javascript
1  var events=require('events');
2  var eventEmitter=new events.EventEmitter();
3  var connectHandler=function connected(){console.log('connection Sucessfull.');
4  eventEmitter.emit('data received');}
5  eventEmitter.on('connection',connectHandler);
6  eventEmitter.on('data received',function(){
7      console.log('data received succesfully.');
8  });
9  eventEmitter.emit('connection');
10 console.log("programe Ended");
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   JUPYTER

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS E:\JAVASCRIPT\College Assignment\Student_regestration(As1)> node Event.js
connection Sucessfull.
data received succesfully.
programe Ended
PS E:\JAVASCRIPT\College Assignment\Student_regestration(As1)>
```

OPEN EDITORS
X JS Event.js Student_regestration(As1)
UNTITLED (WORKSPACE)
> File Append
∨ Student_regestration(As1)
  > .vscode
  > node_modules
  JS build_node.js
  JS create_server.js
  JS Demo_build.js
  <> Employee_reg.html
  JS Event.js
  JS first.js
  <> login.html
  {} package-lock.json
  {} package.json
  <> studreg.html
  # Stylesheet.css
  JS throw_error.js
  JS upper.js

> OUTLINE
> TIMELINE

Ln 10, Col 31   Spaces: 4   UTF-8   CRLF   {} JavaScript   Go Live