



# CERTIFICATE

This is to certify that Mr. \_\_\_\_\_ student of M.Sc(C.S.)  
Semester III at Suryadatta College of Management Information Research  
& Technology (SCMIRT), Pune, has successfully completed the assigned  
practical journal in Advanced Operating System prescribed by the  
Savitribai Phule Pune University during the academic year 2022-2023.

**Internal Examiner**

**External Examiner**

**HOD**

**Principal**

**Place: Pune**

**Date:**

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

**Ans:**

**Slip1.html:**

```
<!DOCTYPE html>
<html>
<head>
  <title>Slip 1 Name and Age Validation</title>
  <script src="Slip1.js"></script>
</head>
<body>
  <form> First Name:
    <input type="text" id="fname"></input></br></br> Last Name:
    <input type="text" id="lname"></input></br></br> Age:
    <input type="text" id="age"></input></br></br>
    <button type="submit" onclick="validateForm()">Submit</button>
  <input type="text" id="output1"></input>
</form>
</body>
</html>
```

**Slip1.js:**

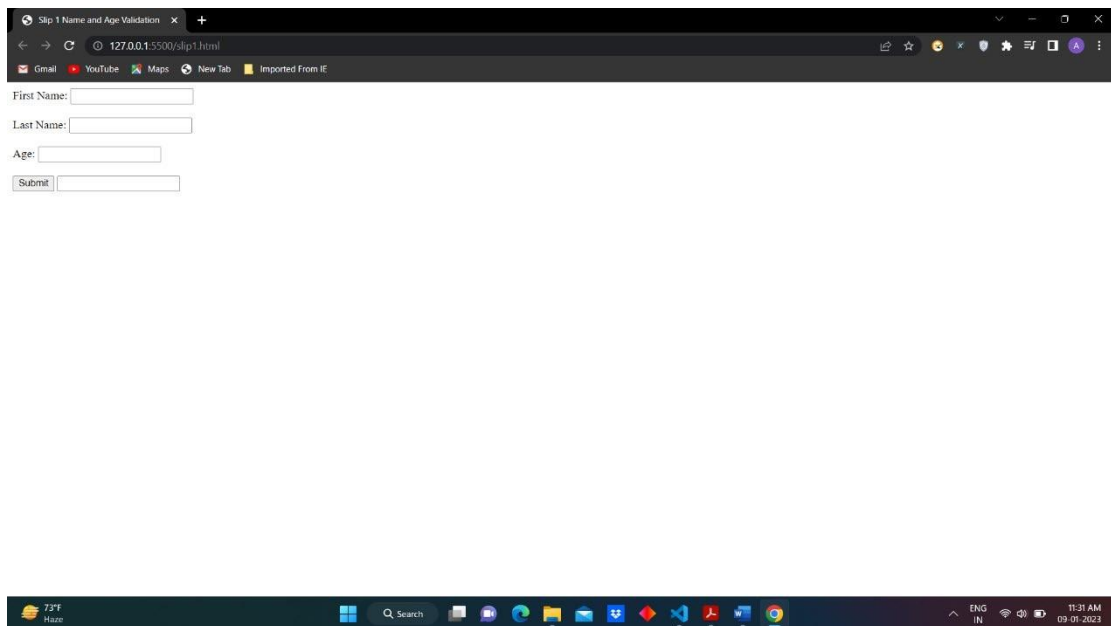
```
function validateForm() {
  var fname = document.getElementById("fname").value;
  var lname = document.getElementById("lname").value;   var
  age = document.getElementById("age").value;
  var reg = /^[a-zA-Z]+$/;
  if (fname.length == 0 || lname.length == 0 || age.length == 0) {
    alert("All Fields are Mandatory");
    return false;
  }
  else if (!reg.test(fname) || !reg.test(lname)) {
    alert("Only Alphabets Allowed");
    return false;
  }
}
```

```

    }
    else if (age < 18 || age > 50) {
alert("Enter Age between 18 & 50 Only")
return false;
    }
    else {
        document.getElementById('output1').value = age + " " + fname + " " +
lname;
        return true;
    }
}

```

## Output:



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

**Ans:**

**Slip2.html:**

```
<!DOCTYPE html>
<html>
<head>
  <title>Slip 2 Employee Registration Details</title>
  <script src="Slip2.js"></script>
</head>
<body>
  <form> Full Name: <input type="text" id="name"></input></br></br> DOB
  <input type="text" id="dob"></input></br></br>
  Joining Date <input type="text" id="jdate"></input></br></br>
  Salary <input type="text" id="sal"></input></br></br> <button
  type="submit"
  onclick="validateform()">Submit</button> </form>
</body>
</html>
```

**Slip.js:**

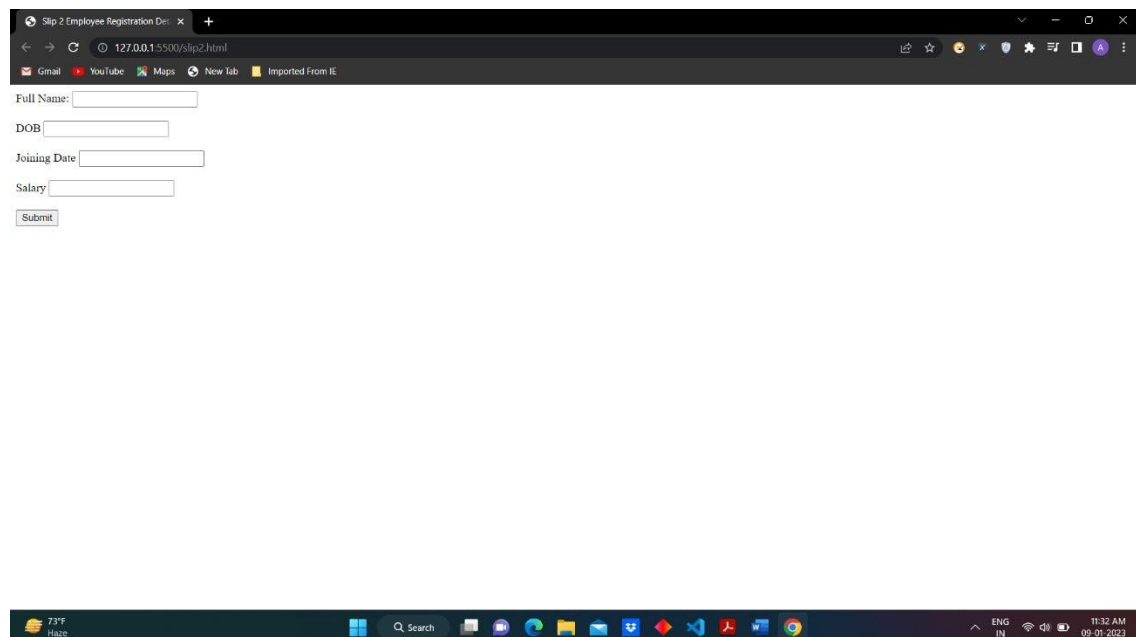
```
function validateform() {
  var name = document.getElementById("name").value;
  var dob = document.getElementById("dob").value;
  var jdate = document.getElementById("jdate").value;
  var sal = document.getElementById("sal").value;  var
  regName = /^[a-zA-Z0-9]+\s[a-zA-Z0-9]+$/;  var
  regdate = /^[0-9]{1,2}\/[0-9]{1,2}\/[0-9]{4}$/;  var
  regsal = /^[0-9]$/;
  if (name.length == 0 || dob.length == 0 || jdate.length == "" || sal.length ==
  0) {
    alert("All Fields are Mandatory");
    return false;
  }
  else if (!regName.test(name)) {
```

```

        alert("Enter Name Format Correctly First Name Last Name");
return false;
    }
    else if (!regdate.test(dob)) {
        alert("Registration Date Format DD/MM/YYYY");
return false;
    }
    else if (!regdate.test(jdate)) {
        alert("Date of Joining Format DD/MM/YYYY");
return false;
    }
    else if (!regsal.test(sal)) {
        alert("Enter Numerical Values only in Salary");
return false;
    } else {
        alert("Validation Successfull")
return true;
    }
}

```

## Output:



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

**Ans:**

**Slip3.html:**

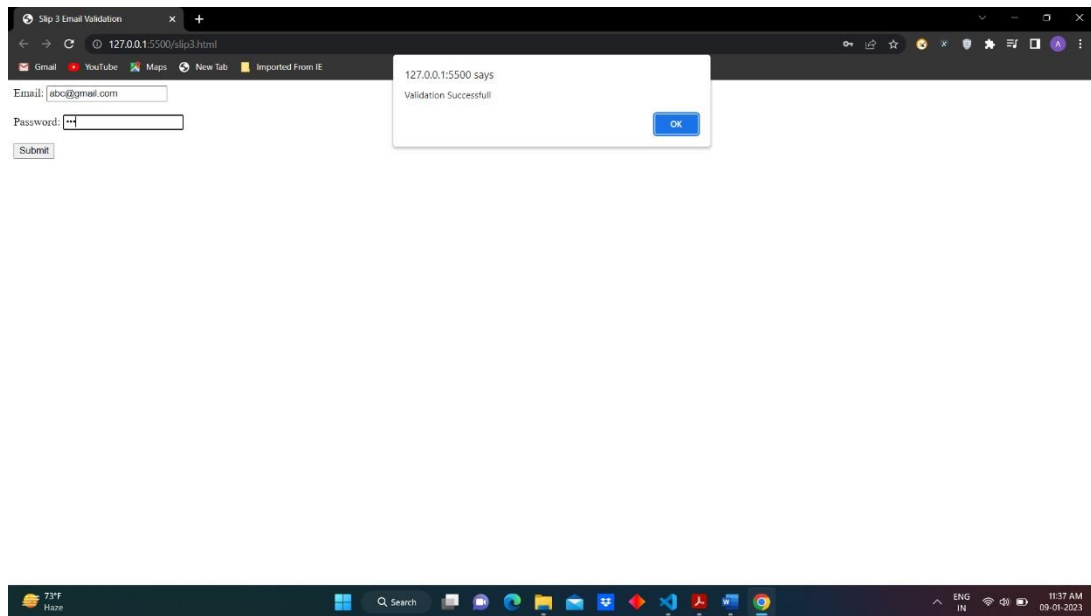
```
<!DOCTYPE html>
<html>
<head>
  <title>Slip 3 Email Validation</title>
  <script src="Slip3.js"></script>
</head>
<body>
  <form> Email: <input type="text" id="email"></input></br></br> Password:
  <input type="password"
    id="pass"></input></br></br> <button type="submit"
  onclick="validateform()">Submit</button></form>
</body>
</html>
```

**Slip3.js:**

```
function validateform() {  var email =
document.getElementById("email").value;  var pass =
document.getElementById("pass").value;  var
regEmail = /^[a-zA-Z0-9\._]+@([a-z]+)(.[a-z]+)?$/;  if
(email.length == 0) {
  alert("All Fields are Mandatory");
  return false;
}
else if (pass.length == 0) {
alert("All Fields are Mandatory");
  return false;
}
else if (!regEmail.test(email)) {
  alert("Enter Name Format Correctly First Name Last Name");
return false;
}
else {
```

```
        alert("Validation Successfull");  
return true;  
    }  
}
```

## Output:





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

**Ans:**

```
var http = require('http'); var uc =  
require('upper-case');  
http.createServer(function (req, res) {  
  res.writeHead(200, {'Content-Type': 'text/html'});  
  /*Use our upper-case module to upper case a string:*/  
  res.write(uc.upperCase("Hello World!")); res.end();  
}).listen(8080);
```

**Output:**

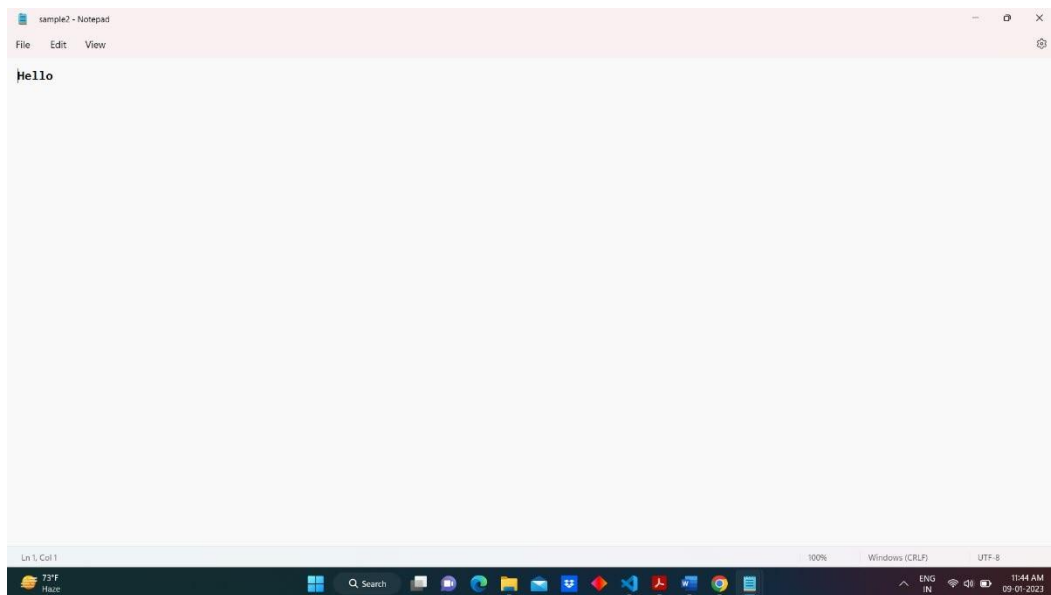


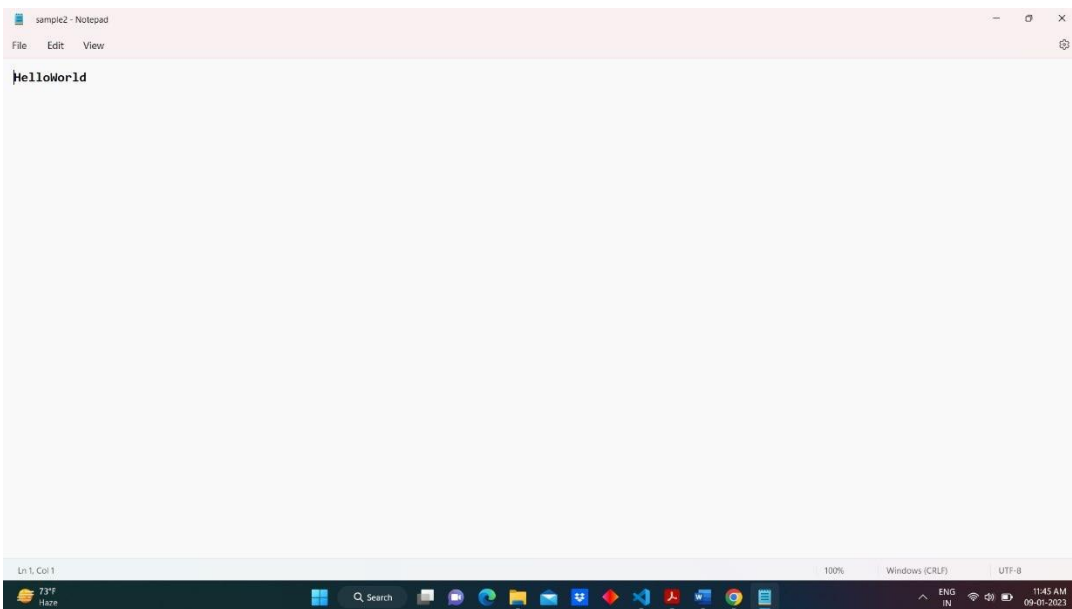
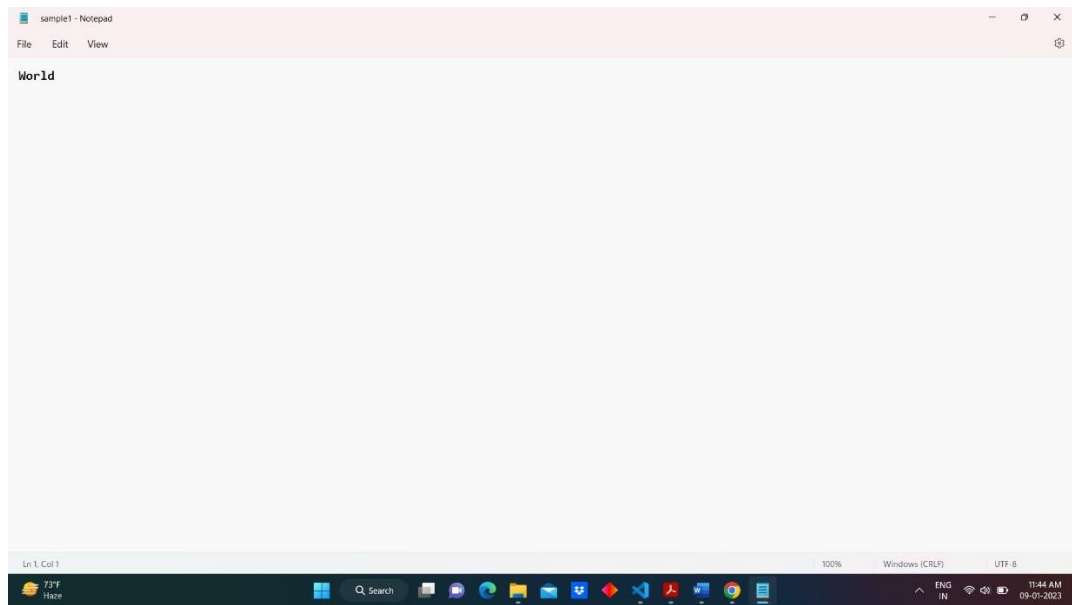
**5) Using nodejs create a web page to read two file names from user and append contents of first file into second file**

**Ans:**

```
var fs = require('fs'); var
path = require('path')
var data = fs.readFileSync("Sample1.txt", "utf8");
fs.appendFile("Sample2.txt", data, (err) => {
  if (err) {
    console.log(err);
  }
  else {
    console.log("File Content after appending: ",
fs.readFileSync("Sample2.txt", "utf8"));
  }
});
```

**Output:**





**6) 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**

```
Ans: var http = require('http'); var fs =
require('fs'); var server =
http.createServer(function (req, res) {
fs.open('Sample.txt', 'r', function (err, fd) {      if
(err) {
        res.writeHead(404, { 'Content-Type': 'text/html' });
return res.end("404 File Not Found");
    }
else {
        console.log("File Open Successfully");
fs.readFile('Sample.txt', function (err, data) {
if (!err) {
        console.log('File Read Successfully'); res.end(data); fs.close(fd);
    }
else {
        console.log('Read File is not possible');
    }
});
    }
});
}).listen(8081);
```

## Output:

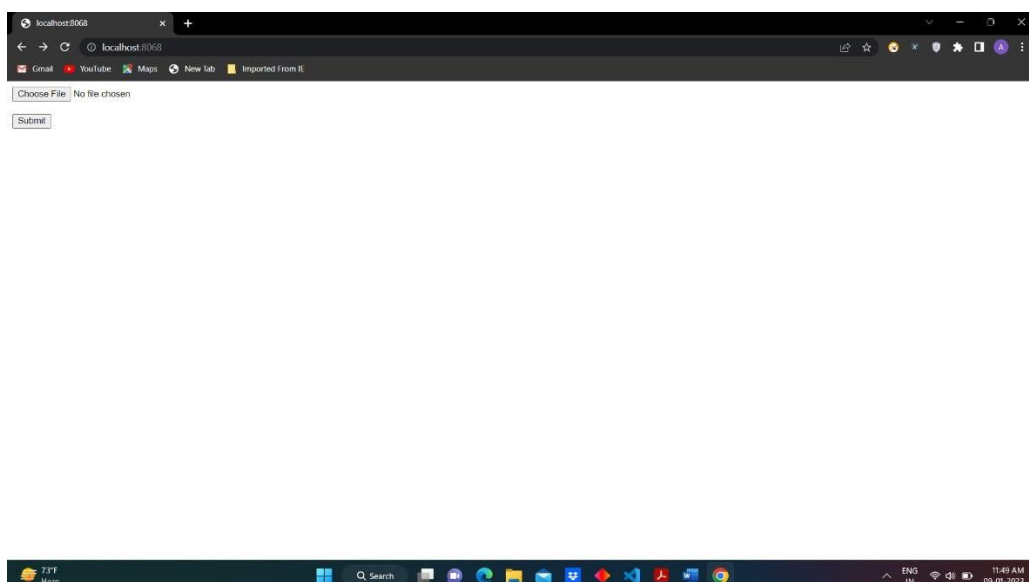


## 7) Create a Node.js file that writes an HTML form, with an upload field

**Ans:**

```
var http = require('http'); var formidable =
require('formidable');
http.createServer(function (req, res) { var
form = new formidable.IncomingForm();
form.parse(req, function (err, fields, files) {
    if (req.url == '/fileupload') {
console.log(files);
res.write('File Uploaded');
    res.end();
    }
else {
    res.writeHead(200, { 'Content-Type': 'text/html' });
    res.write('<form action = "fileupload" method = "get" enctype =
"multipart/form_data">');
    res.write('<input type = "file" name="fileuploaded"><br><br>');
    res.write('<input type = "submit">');
    res.write('</form>'); return res.end();
    }
});
}).listen(8068);
```

**Output:**

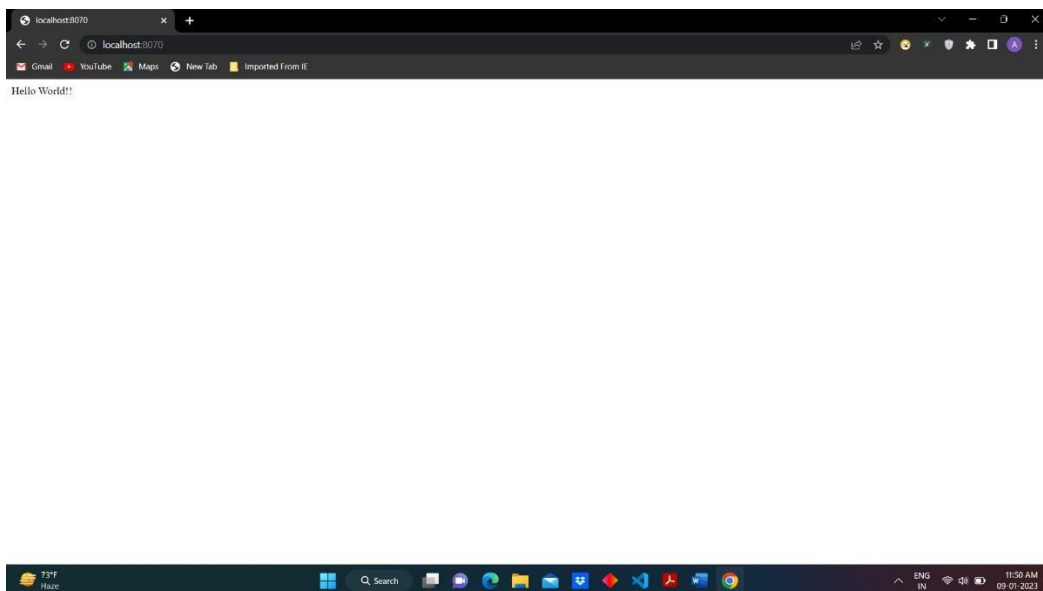


## 8) Create a Simple Web Server using node js

**Ans:**

```
var http = require('http'); http.createServer(function(req,res){  
  res.writeHead(200, {'Content-Type':'text/html'});  
  res.write("Hello World!!");  
  res.end();  
}).listen(8070);
```

**Output:**



## 9) Using node js create a User Login System

**Ans:**

**Index.html:**

```
<html>
  <head>
    <title>Welcome Home</title>
  </head>
  <body>
    <a href="http://localhost:3000/login">Please Login Here!</a>
  </body>
</html>
```

**Login.html:**

```
<html>
<head>
  <title>LOGIN FORM</title>
</head>
<body>
  <form action="http://localhost:3000/login" method="post"> Username:
<br> <input type="text" name="usrname" required>
    <br><br> Password: <br> <input type="password" name="pass" required>
<br><br>
    <input type="submit" value="LOGIN">
  </form>
</body>
</html>
```

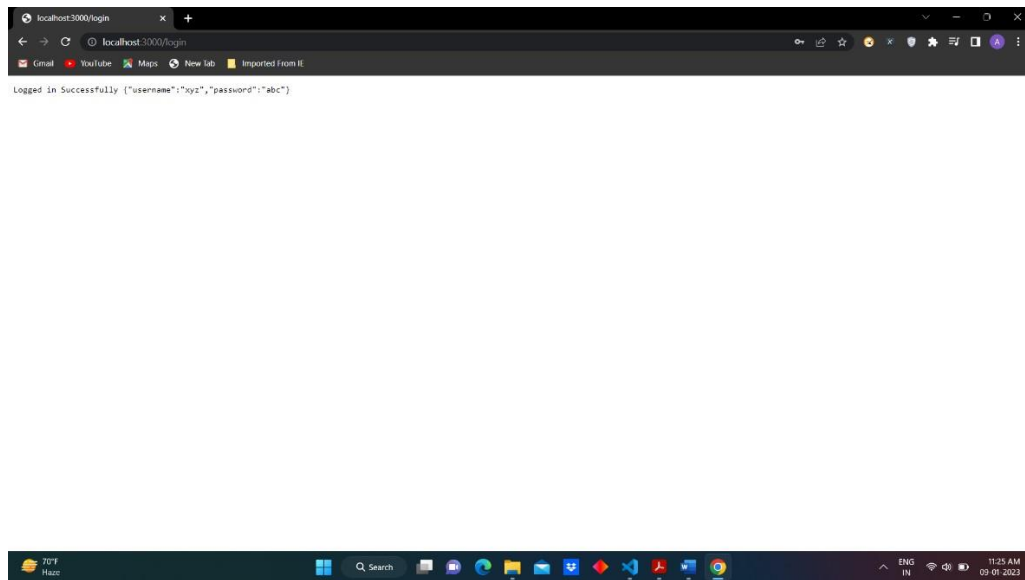
**Login.js:** var express = require('express'); var bodyParser = require('body-parser'); var app = express(); app.use(bodyParser.urlencoded({ extended: false })); app.get('/', function (req, res) { res.sendFile(\_\_dirname + '/index.html'); }); app.get('/login', function (req, res) { res.sendFile(\_\_dirname + '/login.html'); }); app.post('/login', function (req, res) {



```
    person = { username: req.body.username, password: req.body.pass };
    res.end("Logged in Successfully " + JSON.stringify(person));
  });
  var server = app.listen(3000, function () {
    console.log("Server is Running");
  });
```

## Output:





**10) write node js script to interact with the filesystem, and serve a web page from a file**

**Ans:**

```
var http = require('http'); var
fs = require('fs');
var server = http.createServer(function (req, res) {
  //fs.open( filename, , mode[r = read & r+ = readwrite], callback )
  fs.open('Sample.txt', 'r', function (err, fd) {
    fs.readFile('Sample.txt', function (err, data) {
      if (!err) {
        console.log('File Read Successfully');
        res.end(data);
        fs.close(fd);
      }
    }
  });
  console.log('Read File is not possible');
});
}).listen(8060);
```

**Output:**

