

## Dynamic Website using Node and Express

**ExpNo.9**

**Date:14-04-21**

**Objective:** To Write a dynamic web application for uploading files using Node JS and Express.

- To make a file upload application for my tourism website where users will have to upload Government ID card images and it will be stored locally on the file upload folder.

### **Requirements:**

- **Front End Requirements:**
  1. Web Browser HTML support
  2. HTML
  3. CSS
- **Back End Requirements:**
  1. NodeJS
  2. Express
  3. Multer
- **Text Editor/IDE**

### **Theory:**

- **Html** stands for hypertext markup language is a standard markup language for creating web pages. It Describes the structure of web page.
- **CSS** (cascading style sheets) is used to format the layout of a webpage.
- **Node js** is a free and an open source environment
  - It used javascript to run on server.
  - Nodejs is used to generate dynamic page content.
  - It executes javascript code outside browser.
- **Express** is a minimal and flexible Node.js web application framework that provides a robust set of features to develop web and mobile applications. It facilitates the rapid development of Node based Web applications.
  - Allows to set up middlewares to respond to HTTP Requests
- **Multer** is a node.js middleware for handling multipart/form-data, which is primarily used for uploading files

## **Procedure**

1. Create a front end UI for the file upload form index.html
2. Create a file server.js. In cmd execute npm init.
3. Install express by executing npm install express in the cmd.
4. Install multer by executing npm install multer.
5. Create a folder uploads in your project folder where the files will be stored.
6. Write the code for server.js
7. Start the server using the command node server.js.
8. Open index.html in browser and upload the file from your device .
9. The uploaded files can be viewed in the uploads folder.

## **Implementation:**

### **index.html**

```
<html>
<head>
  <title>File upload</title>
<style>

  body{
    /*background-image:url("uploadb.jpg");*/
    /*background-image: url("upimg.jpg");*/
    background-color:#d7a9d7;
    background-repeat: no-repeat;
    background-size:cover;
  }
  .frame{
    height:350px;
    width:450px;
    border: 2px solid black;
    padding-left: 2%;
    margin-left:440px;
    margin-top:80px;
    padding-top:1%;
    background-color: powderblue;
    font-weight: bold;
  }
  #sub{
    margin-left:23%;
    margin-top:8%;
    border: black solid 1px;
    font-size: medium;
    font-weight: bold;
  }
  #sub1{
```

```

margin-left:2%;
border: black solid 1px;
font-size: medium;
font-weight: bold;
}
#fil{
padding-top:1%;
font-size: medium;

}

</style>
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.7.1/jquery.min.js"></script>
<script
src="http://cdnjs.cloudflare.com/ajax/libs/jquery.form/3.51/jquery.form.min.js"></script>
<script>
$(document).ready(function() {
    $('#uploadForm').submit(function() {
        $('#status').empty().text("File is uploading...");

        $(this).ajaxSubmit({

            error: function(xhr) {
                console.log(chr.status);
                //status('Error: ' + xhr.status);
            },

            success: function(response) {
                console.log(response);
                $('#status').empty().text(response);
            }
        });

        return false;
    });
});
</script>
</head>

<body>

<h1><center>Gujarat Tourism</center></h1>
<div class="frame">
<form name="myForm" id="uploadForm" enctype="multipart/form-data"
action="http://localhost:2000/uploadjavatpoint" method="post">
<p>Enter Your Name:<input type="text" id="name" name="fname" required></p>
<p>Enter Your Mobile Number:<input type="number" name="mob" required></p>
<p>Enter Age:<input type="number" name="age" required></p>
<p>Enter Number of Persons:<input type="number" name="nop" required></p>

```

```

    <p>Upload Government ID proof:<input type="file" id="fil" name="myfile" required
/></p>
    <input type="submit" id="sub" value="Upload Image" name="submit">
    <input type="submit" id="sub1" value="Submit" onclick="validateForm()"><br>
    <p><span id="status"></span></p>

</form>
</div>
<script>
function validateForm() {
    var x = document.forms["myForm"]["fname"].value;
    var flag=true;
    if (x == "") {
        alert("Name must be filled out");
        flag=false;
    }
    var a= document.forms["myForm"]["mob"].value;
    if (a == "") {
        alert("Mobile Number must be filled out");
        flag=false;
    }
    var b= document.forms["myForm"]["age"].value;
    if (b == "") {
        alert("Age must be filled out");
        flag=false;
    }
    var c= document.forms["myForm"]["nop"].value;
    if (c == "") {
        alert("Number of Persons must be filled out");
        flag=false;
    }
    if(flag)
    {
        alert("Your Details Are Submitted Successfully");
    }

}
</script>
</body>

</html>

```

**package.json**

```

{
  "name": "file_upload",
  "version": "0.0.1",
  "dependencies": {
    "express": "^4.17.1",

```

```
"multer": "1.1.0"
},
"devDependencies": {
  "mocha": "^8.3.2",
  "should": "~7.1.0",
  "supertest": "^6.1.3"
}
}
```

### **server.js**

```
var express = require("express");
var multer = require('multer');
var app = express();
var storage = multer.diskStorage({
  destination: function (req, file, callback) {
    callback(null, './uploads');
  },
  filename: function (req, file, callback) {
    callback(null, file.originalname);
  }
});
var upload = multer({ storage : storage}).single('myfile');

app.get('/',function(req,res){
  res.sendFile(__dirname + "/index.html");
});

app.post('/uploadjavatpoint',function(req,res){
  upload(req,res,function(err) {
    if(err) {
      return res.end("Error uploading file.");
    }
    res.end("File is uploaded successfully!");
  });
});

app.listen(2000,function(){
  console.log("Server is running on port 2000");
});
```

## Output:

### ticket.html

Added a next button to ticket booking page which navigates it to another web page where user will have to upload government ID.

Started the server to accept file uploads from the client in windows power shell.

**Entry Ticket(s) Booking**

**Visitor Details**

Number Of Adults:

Number Of Children:

**Total Cost:64**

**Monuments**

- ☒ Asokan Rock Edict, Junagadh (INR25/-)
- ☒ Archaeological Site Museum, Dholavira (INR5/-)
- ☒ Archaeological Site Museum, Lothal (INR2/-)
- ☐ Baba Pyare, Khaparakodia Caves (INR20/-)
- ☐ Buddhish Caves, Junagadh (INR25/-)
- ☐ Champaner Monuments (INR5/-)
- ☐ Rani Ki Vav (INR5/-)
- ☐ Rudabai Step Well, Adalaj (INR25/-)
- ☐ Modhera Sun Temple (INR20/-)

(Note:Per person charges given)

**Select Monuments to Proceed**

Asokan Rock Edict  
Date Of Visit:

Archaeological Site Museum,Dholavira  
Date Of Visit:

Archaeological Site Museum,Lothal  
Date Of Visit:

**Enter Name:**

**Email:**

Server is running on port 2000.

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

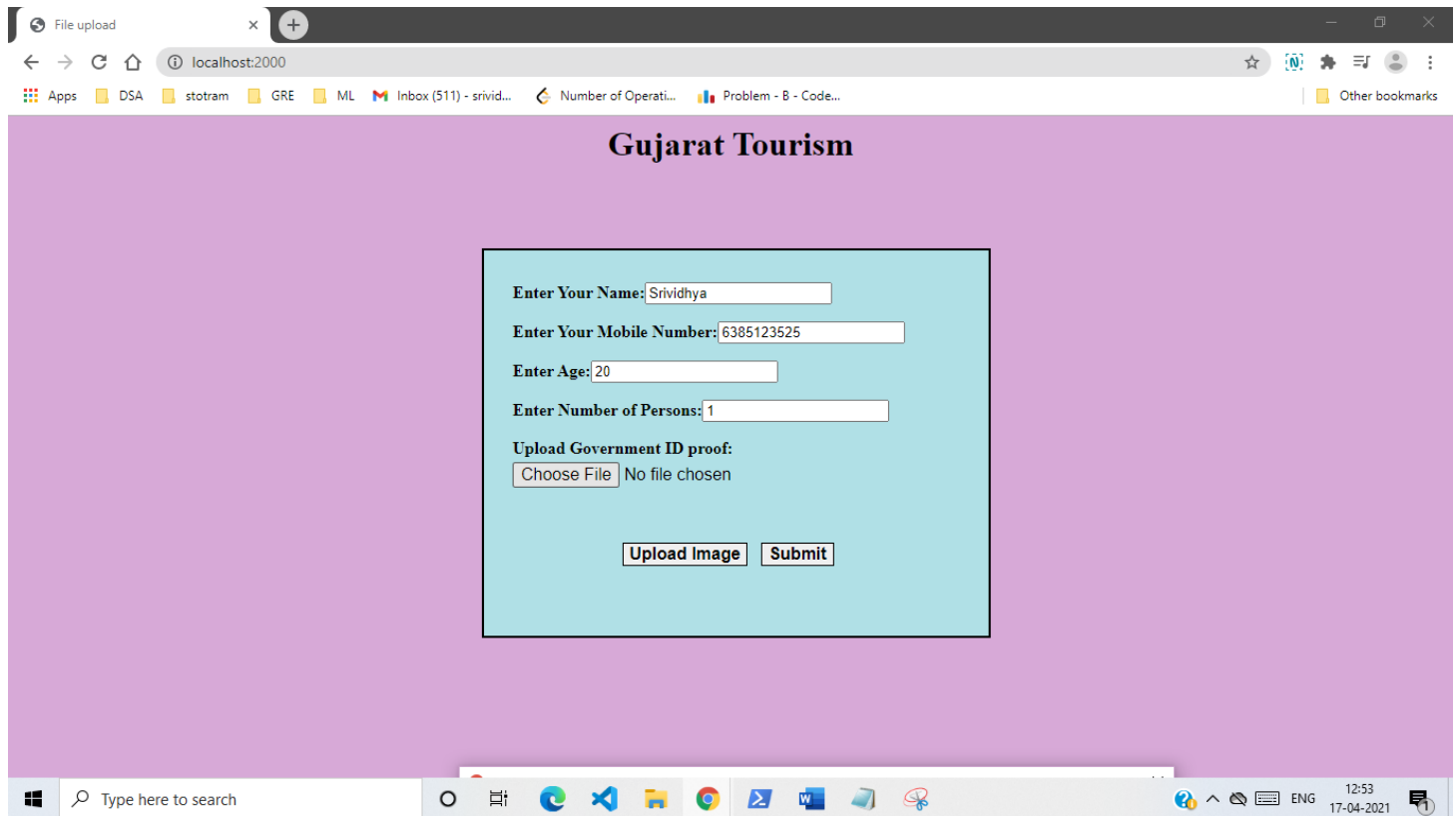
PS C:\WINDOWS\system32> cd "C:\Users\Sujatha\Desktop\6th sem\Webdevelopment\lab main\jtp file upload"
PS C:\Users\Sujatha\Desktop\6th sem\Webdevelopment\lab main\jtp file upload> node server.js
Server is running on port 2000
```

### File upload web page:

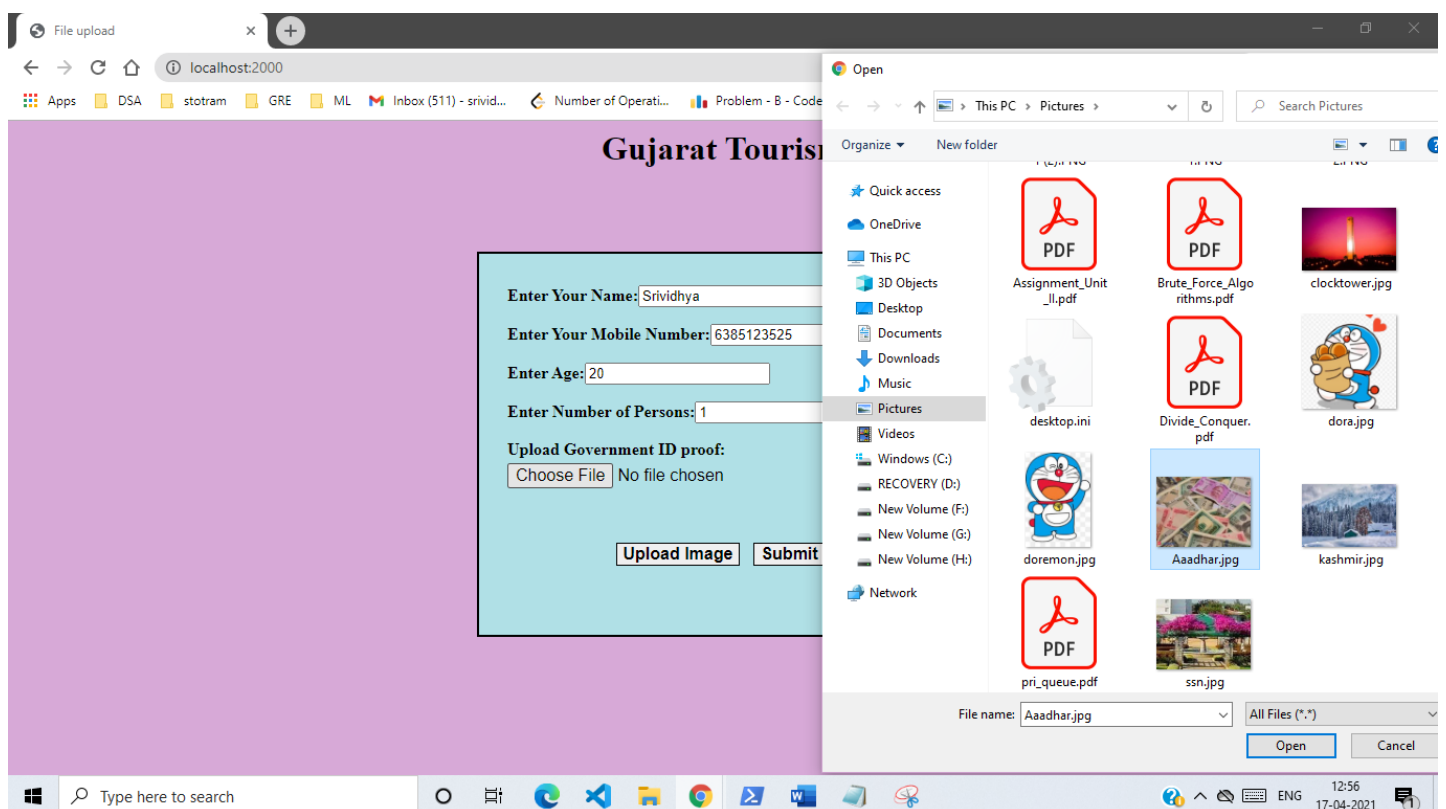
The screenshot shows a web browser window with the title "File upload" and the address bar displaying "localhost:2000". The browser's bookmark bar includes "Apps", "DSA", "stotram", "GRE", "ML", "Inbox (511) - srivid...", "Number of Operati...", "Problem - B - Code...", and "Other bookmarks". The main content area has a purple background with the heading "Gujarat Tourism" in bold black text. Below the heading is a light blue rectangular form containing the following fields and buttons:

- Enter Your Name:
- Enter Your Mobile Number:
- Enter Age:
- Enter Number of Persons:
- Upload Government ID proof:  
 No file chosen
- 

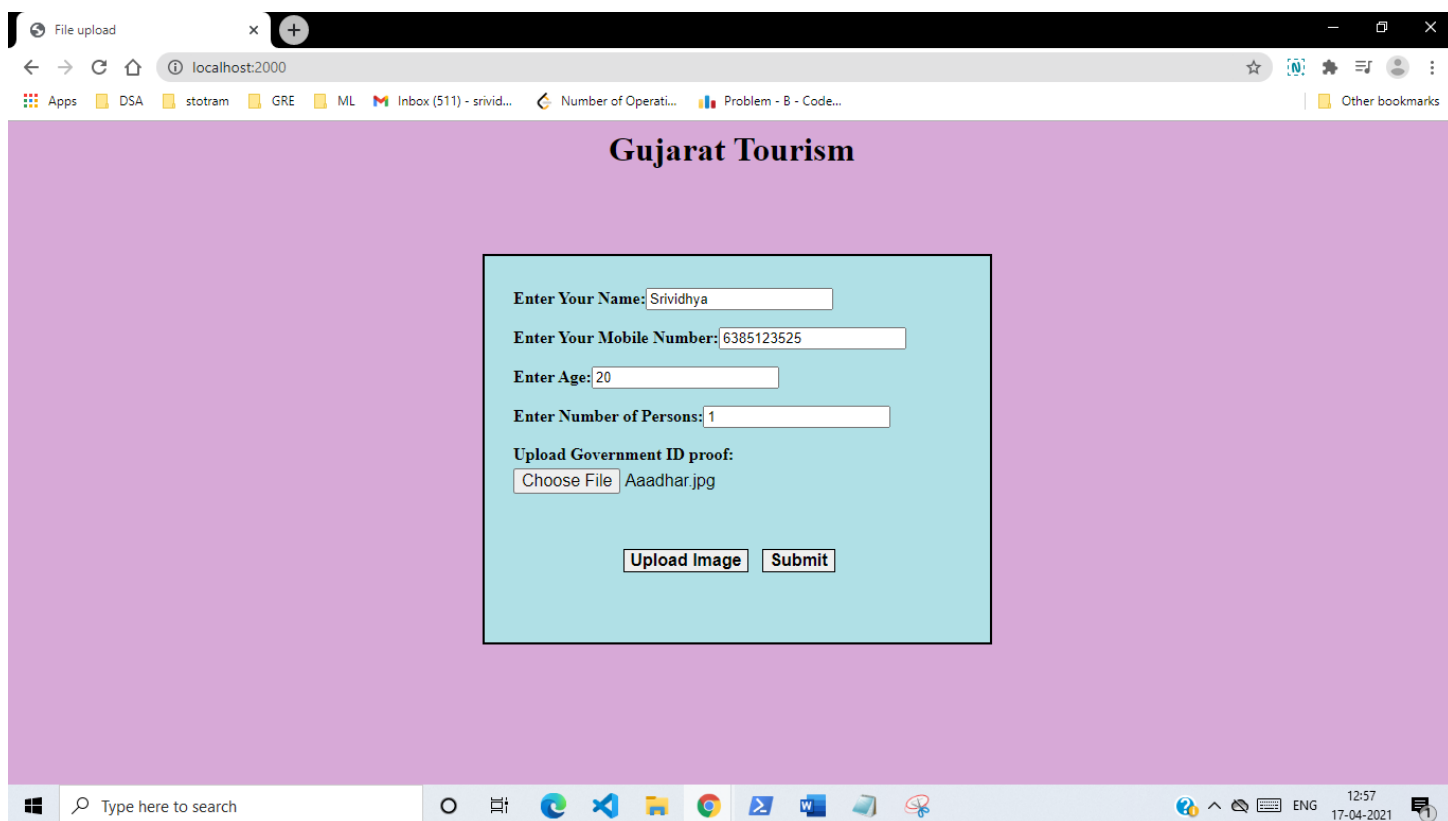
The Windows taskbar at the bottom shows the search bar with "Type here to search", several application icons (Edge, VS Code, File Explorer, Chrome, Word, etc.), and the system clock indicating 12:50 on 17-04-2021.



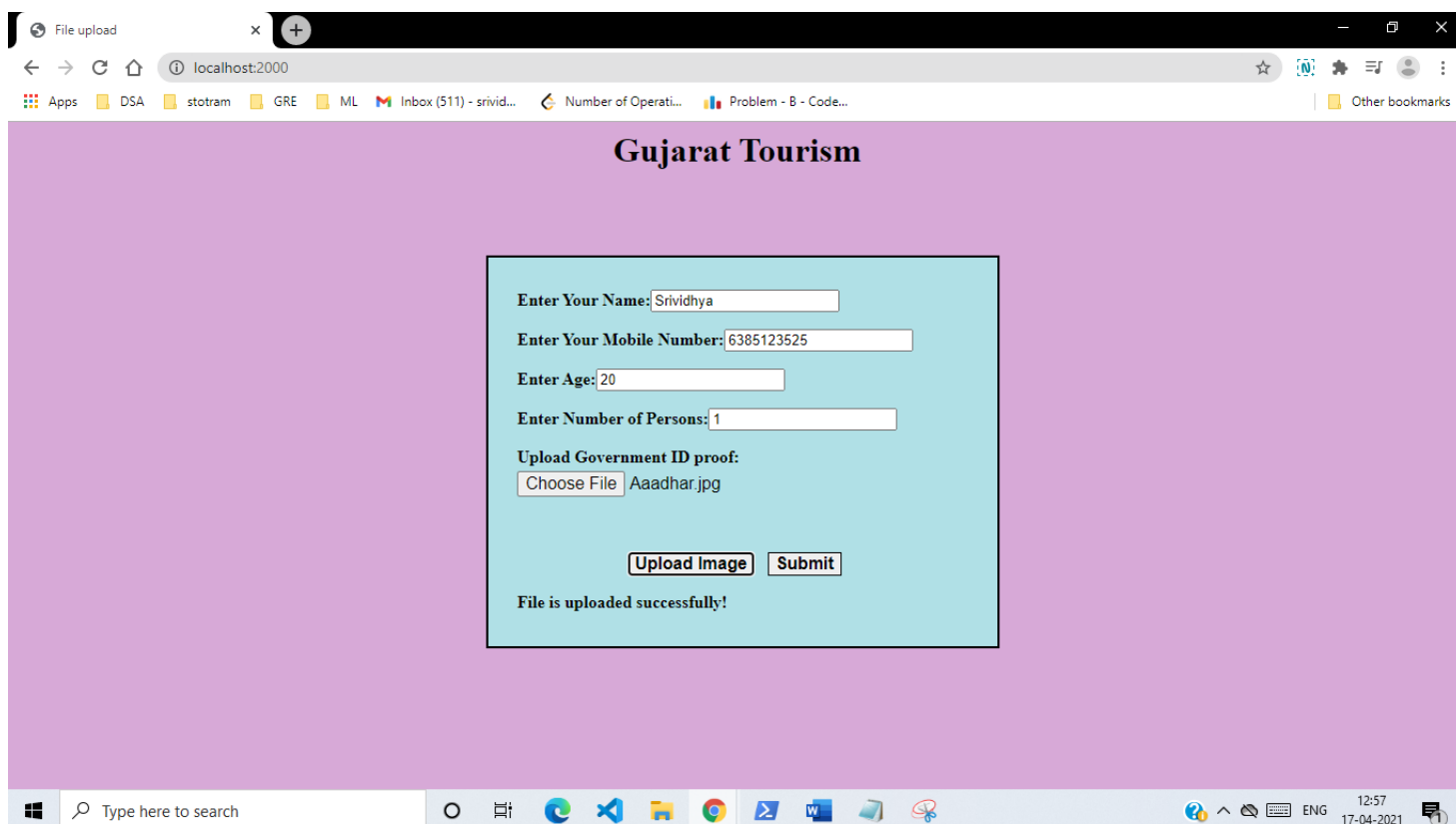
### File explorer of the user will open on clicking choose file



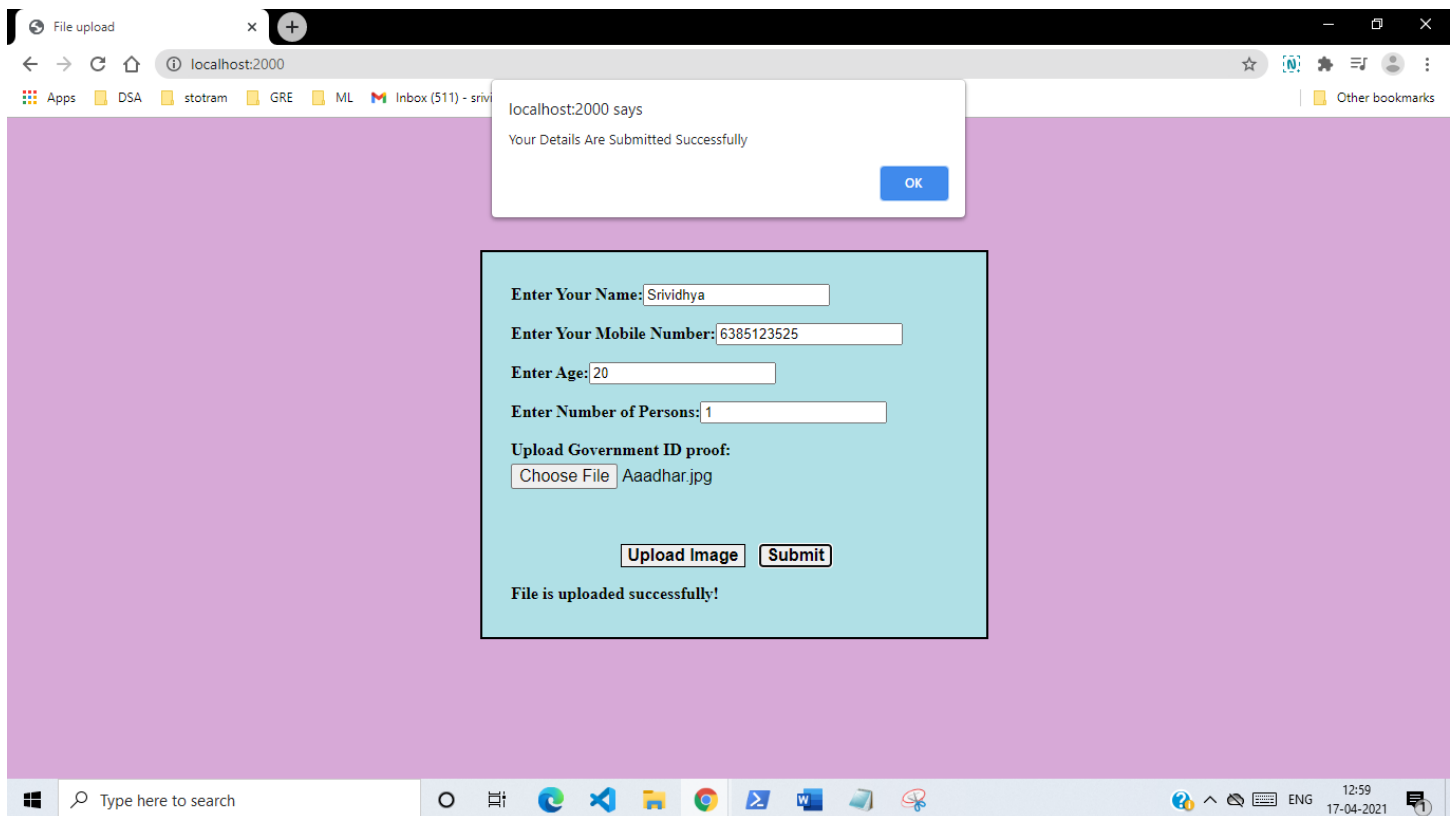
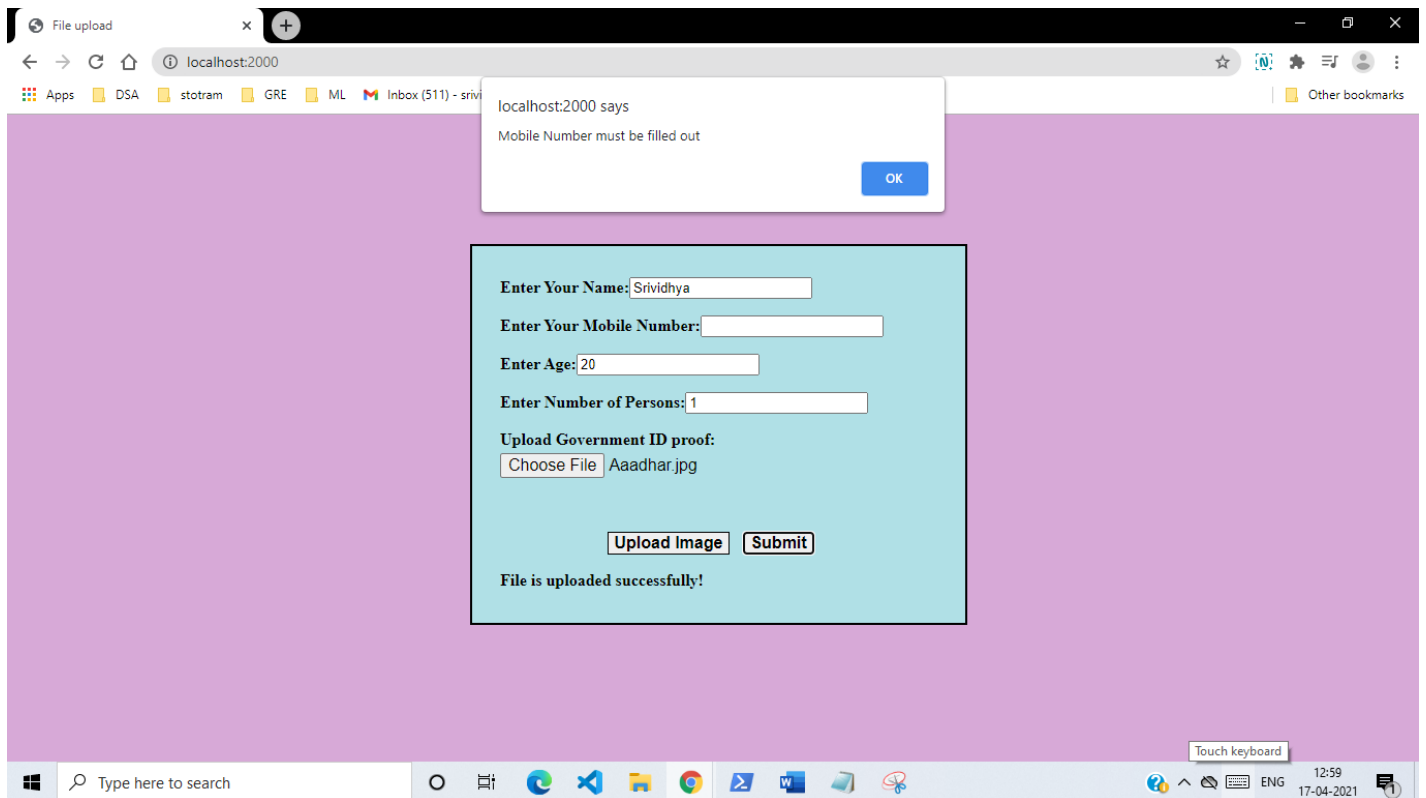




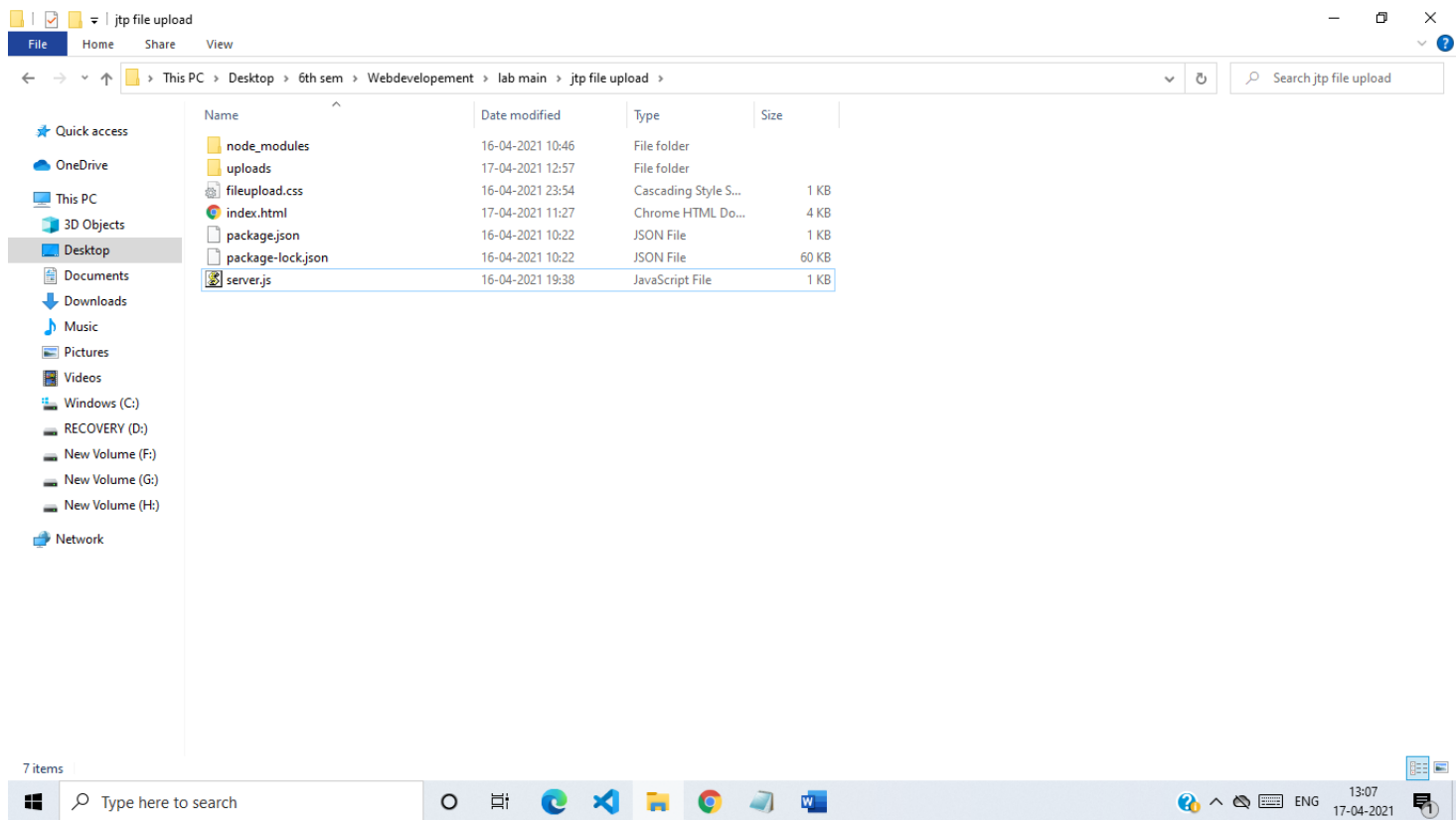
**On clicking upload image it shows the status of file upload. If file has been uploaded successfully success status is shown else error message is displayed.**



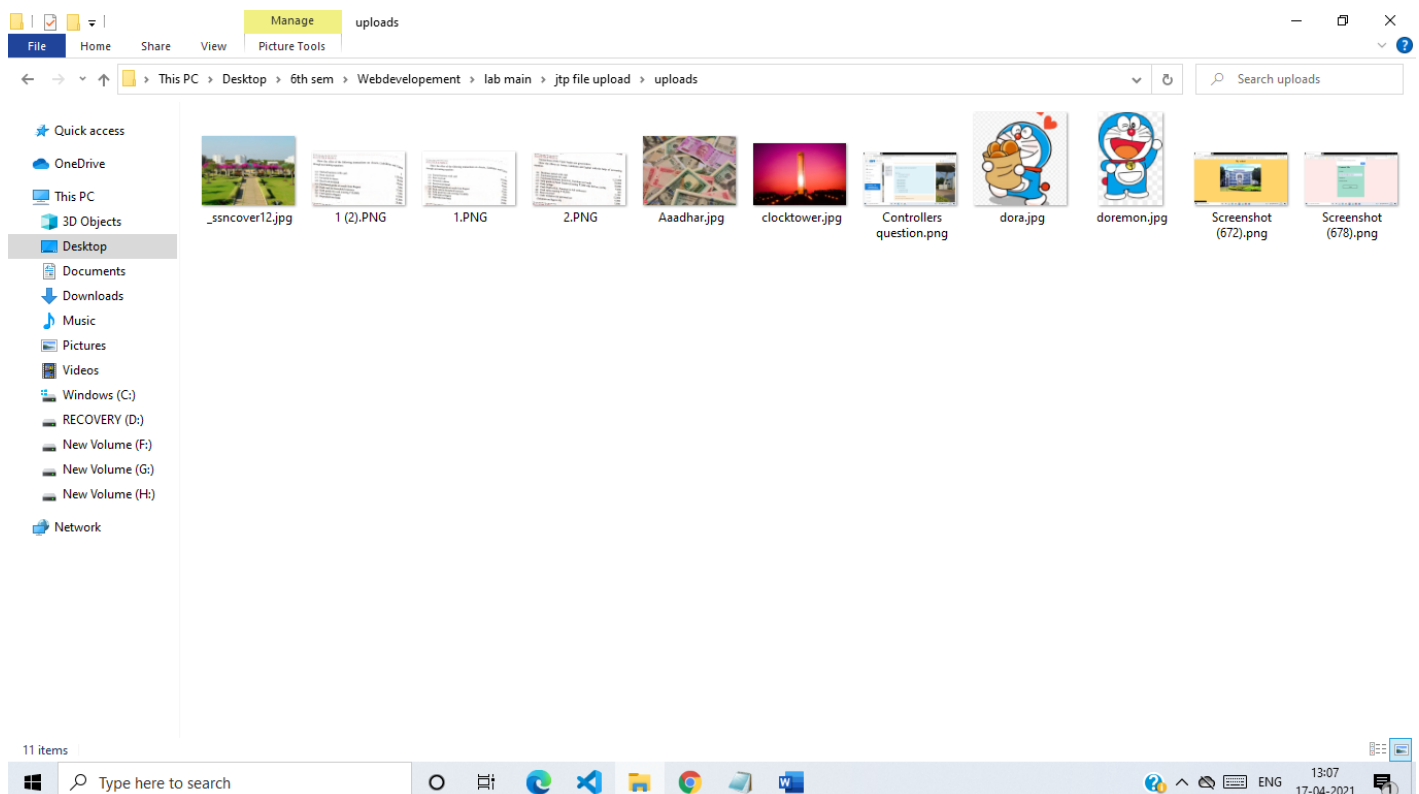
**The form filled by user is validated on clicking the submit button and appropriate messages are displayed.**



## File upload folder location where there is an uploads folder.



## After the user has successfully uploaded the file it will stored and can be retrieved from the uploads folder. I saved Aadhar.jpg and it is present in the uploads folder.



**Result:** A dynamic file upload application using Nodejs and express has been successfully executed and verified.