

Step1: Project and Folder

```
C:\demo\jsmarch24\L17>mkdir sms_project  
C:\demo\jsmarch24\L17>cd sms_project  
C:\demo\jsmarch24\L17\sms_project>mkdir server  
C:\demo\jsmarch24\L17\sms_project>mkdir client
```

Step2: React

S1:

```
C:\demo\jsmarch24\L17\sms_project>cd client  
C:\demo\jsmarch24\L17\sms_project\client>npx create-react-app sms_app  
C:\demo\jsmarch24\L17\sms_project\client>cd sms_app  
C:\demo\jsmarch24\L17\sms_project\client\sms_app>npm install axios react-router-dom file-saver  
C:\demo\jsmarch24\L17\sms_project\client\sms_app>cd src  
C:\demo\jsmarch24\L17\sms_project\client\sms_app\src>notepad Home.js  
C:\demo\jsmarch24\L17\sms_project\client\sms_app\src>notepad Create.js  
C:\demo\jsmarch24\L17\sms_project\client\sms_app\src>notepad NavBar.js  
C:\demo\jsmarch24\L17\sms_project\client\sms_app\src>cd..  
C:\demo\jsmarch24\L17\sms_project\client\sms_app>npm start
```

S2:

Home.js

```
import NavBar from "./NavBar";  
  
function Home()  
{  
    return(  
        <>  
        <center>  
            <NavBar/>  
            <h1> Home Page </h1>  
        </center>  
    </>  
);  
}  
export default Home;
```

Create.js

```
import NavBar from "./NavBar";
import { useState, useRef } from "react";
import axios from "axios";

function Create()
{
    const rRno = useRef();
    const [rno, setRno] = useState("");
    const [name, setName] = useState("");
    const [marks, setMarks] = useState("");
    const [file, setFile] = useState("");
    const [msg, setMsg] = useState("");

    const hRno = (event) => { setRno(event.target.value); }
    const hName = (event) => { setName(event.target.value); }
    const hMarks = (event) => { setMarks(event.target.value); }
    const hFile = (event) => { setFile(event.target.files[0]); }

    const save = (event) => {
        event.preventDefault();
        let url = "http://localhost:9000/save";
        const formData = new FormData();
        formData.append('rno', rno);
        formData.append('name', name);
        formData.append('marks', marks);
        formData.append('file', file);
        axios.post(url, formData, {headers: { 'Content-Type': 'multipart/form-data' },})
        .then( res => {
            if (res.data.affectedRows == 1)
            {
                setMsg("record created");
                setRno("");
                setName("");
                setMarks("");
                rRno.current.focus();
            }
            else if (res.data errno == 1062)
            {
                setMsg("rno already exists");
                setRno("");
                rRno.current.focus();
            }
        })
        .catch( err => setMsg("issue " + err));
    };
}
```

```

return(
<>
<center>
  <NavBar/>
  <h1> Create Page </h1>
  <form onSubmit={ save } >
    <input type="number" placeholder="enter rno "
      onChange={ hRno } value={ rno } ref={ rRno } />
    <br/><br/>
    <input type="text" placeholder="enter name "
      onChange={ hName } value={ name } />
    <br/><br/>
    <input type="number" placeholder="enter marks "
      onChange={ hMarks } value={ marks } />
    <br/><br/>
    <input type="file" placeholder="choose file "
      onChange={ hFile } />
    <br/><br/>
    <input type="submit"/>
    <br/><br/>
  </form>
  <h2> { msg } </h2>
</center>
</>
);
}
export default Create;

```

NavBar.js

```

import { Link } from "react-router-dom";

function NavBar()
{
return(
<>
<center>
  <div className="nav">
    <Link to="/" > Home </Link>
    <Link to="/create" > Create </Link>
  </div>
</center>
</>
);
}
export default NavBar;

```

App.js

```
import logo from './logo.svg';
import './App.css';
import Home from "./Home";
import Create from "./Create";
import { BrowserRouter, Routes, Route } from "react-router-dom";

function App() {
  return (
    <BrowserRouter>
      <Routes>
        <Route path="/" element={ <Home/> } />
        <Route path="/create" element={ <Create/> } />
        <Route path="*" element={ <Home/> } />
      </Routes>
    </BrowserRouter>
  );
}

export default App;
```

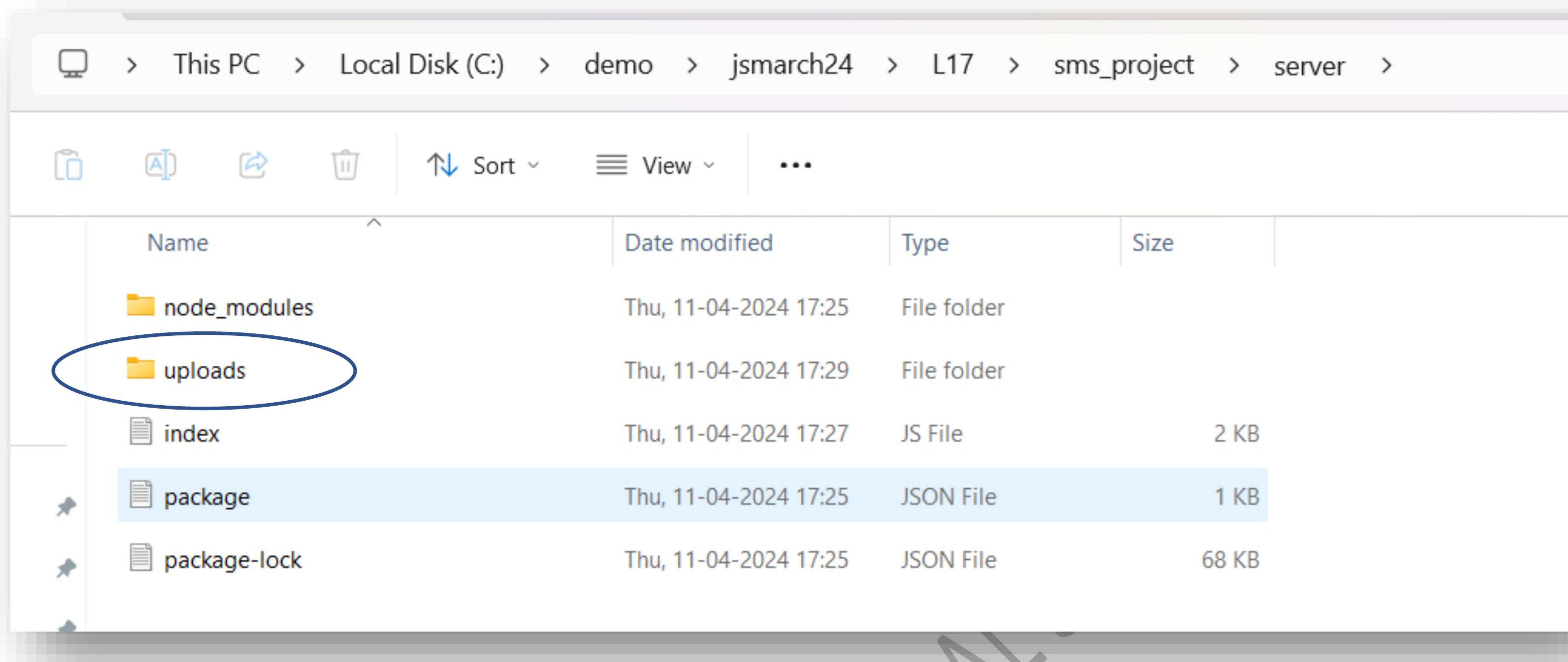
App.css

```
* { font-size: 2vw; }
body { background-color:azure; }
.nav { background-color:black; }
.nav a { color:white; text-decoration:none; margin:2vw;}
```

REACT + EXPRESS + MYSQL with KAMAL SIR - 8369084928

Step3: Express

S0: in server create folder → uploads



S1:

```
C:\demo\jsmarch24\L17\sms_project\server>npm install express cors mysql2 multer fs path  
C:\demo\jsmarch24\L17\sms_project\server>notepad index.js  
C:\demo\jsmarch24\L17\sms_project\server>nodemon index.js
```

S2:

index.js

```
const express = require("express");  
const cors = require("cors");  
const mysql = require("mysql2");  
const multer = require('multer');  
const path = require('path');  
const fs = require("fs");  
  
const app = express();  
app.use(cors());  
app.use(express.json());  
  
const con = mysql.createConnection({  
    "host" : "localhost",  
    "user" : "root",  
    "password" : "abc123",  
    "database" : "sms11april24"  
});
```

```

// Set up multer for file uploads
const storage = multer.diskStorage({
  destination: (req, file, cb) => {
    cb(null, 'uploads/'); // Destination folder for uploads
  },
  filename: (req, file, cb) => {
    cb(null, Date.now() + path.extname(file.originalname)); // Unique filename
  },
});

const upload = multer({ storage });

// Serve uploaded files statically
app.use('/uploads', express.static('uploads'));

app.post("/save", upload.single('file'), (req, res) => {
  let data = [req.body.rno, req.body.name, req.body.marks, req.file.filename];
  console.log(data);
  let sql = "insert into student values(?, ?, ?, ?)";
  con.query(sql, data, (err, result) => {
    if (err) res.send(err);
    else res.send(result);
  });
});

app.listen(9000, () => { console.log("ready @ 9000"); });

```

Step4: MySQL

```

C:\Program Files\MySQL\MySQL Server 8.0\bin>mysql -uroot -pabc123
mysql> create database sms11april24;
mysql> use sms11april24;
mysql> create table student(rno int primary key, name varchar(250), marks int, image varchar(250));

```