1) Develop a user registration form and store its data in any database using Express. Form should also contain file upload (single, multiple) with validations.

Model :-

```
const mongoose = require('mongoose')

const Q1Schema = new mongoose.Schema({

   name: {
      type:String
   },
   pass: {
      type:String
   },
   email: {
      type:String
   },
   phone: {
      type:Number
   },
   avatar: {
      type:String
   }
})

module.exports = mongoose.model('Q1', Q1Schema)
```

upload.js :-

```
const express = require('express')
const mongoose = require('mongoose')
const multer  = require('multer')
const path = require('path');
const app = express();
app.use(express.static('public'));
const Q1 = require('./model/q1')

mongoose.connect('mongodb://0.0.0.0:27017/Q1DBex')
const db = mongoose.connection

db.on('open', ()=>{
  console.log('Connected to database!!')
})

var options = multer.diskStorage({
   destination : function (req, file, cb) {
     if (file.mimetype !== 'image/jpeg')
```

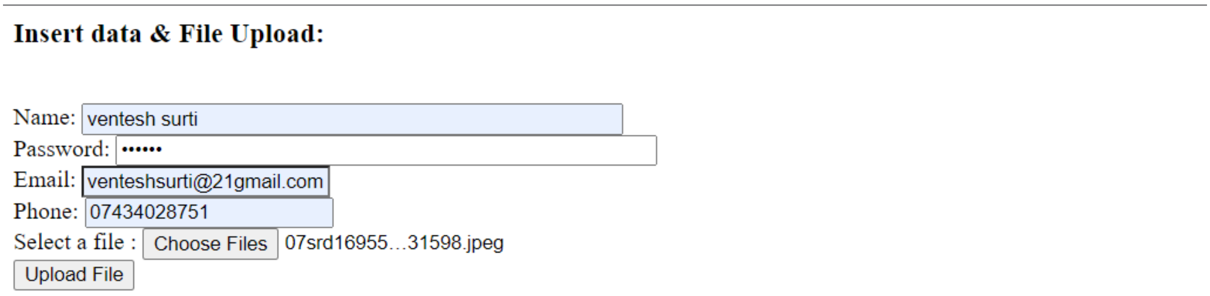
```
      {
        return cb('Invalid file format'); //cb(err)
      }
      cb(null, './uploads');
    } ,
      filename: function (req, file, cb) {
        cb(null, (Math.random().toString(30)).
          slice(5, 10) + Date.now()
          + path.extname(file.originalname));
      }
});
var upload= multer({ storage: options });

app.post("/url",()=>{})
app.post('/file_upload', upload.single("myfile"), function (req, res, next) {
  res.write(req.body.fname+" "+req.body.lname+"\n");
  res.write("file uploaded");
  res.end();
})

app.post('/photos_upload',upload.array('photos',2), (req, res) => {
  // req.files is array of `photos` files
  console.log(req.files)
  const add = new Q1({
    name: req.body.name,
    pass: req.body.pass,
    email: req.body.email,
    phone: req.body.phone,
    avatar: req.body.photos
  })
  try {
    const newq1 = add.save()
    res.redirect('/data')
  } catch (error) {
    console.log('Error'+error)
  }
})

app.get('/data',async(req,res)=>{
  try {
    const data = await Q1.find()
    res.json(data)
  } catch (error) {
    error
  }
})

app.use(function (err, req, res, next) {
  if (err instanceof multer.MulterError)
```

```
{
  console.log("ERRRR");
  res.status(500).send("file upload  err "+err.message);

 }
 else
  next(err);
});
app.listen(8000);
```

index.html :-

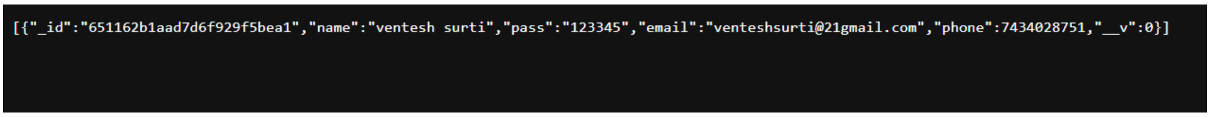
```
<html>
  <head>
    <title>File Uploading Form</title>
  </head>
  <body>
    <h3>Insert data & File Upload:</h3>
    <br />

    <form action = "/photos_upload" method = "POST"
      enctype = "multipart/form-data">
      Name: <input type="text" name="name" size="50" /><br>
      Password: <input type="password" name="pass" size="50" /><br>
      Email: <input type="text" name="email"/><br>
      Phone: <input type="number" name="phone" /><br>
      Select a file : <input type="file" name="photos" size="500" multiple="multiple" />
      <br />
      <input type = "submit" value = "Upload File" />
    </form>
  </body>
</html>
```

Output :-

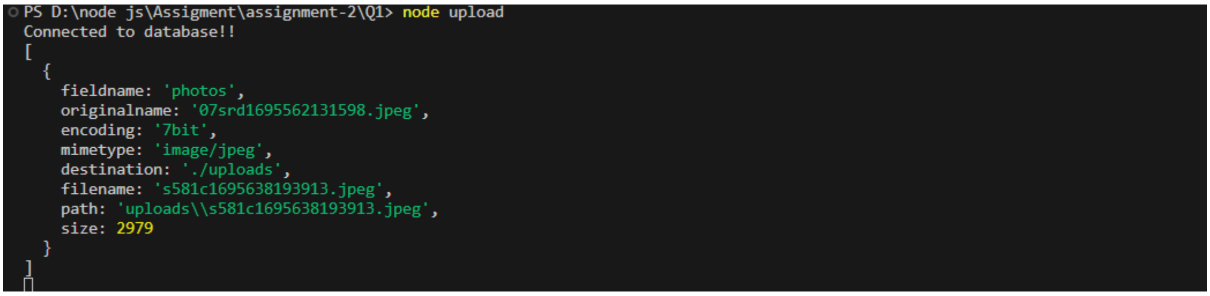


Insert data & File Upload:

Name: ventesh surti
Password: ••••••
Email: venteshsurti@21gmail.com
Phone: 07434028751
Select a file : 07srd16955...31598.jpeg



```
[{"_id":"651162b1aad7d6f929f5bea1","name":"ventesh surti","pass":"123345","email":"venteshsurti@21gmail.com","phone":7434028751,"__v":0}]
```



```
PS D:\node js\Assigment\assignment-2\Q1> node upload
Connected to database!!
[
  {
    fieldname: 'photos',
    originalname: '07srd1695562131598.jpeg',
    encoding: '7bit',
    mimetype: 'image/jpeg',
    destination: './uploads',
    filename: 's581c1695638193913.jpeg',
    path: 'uploads\\s581c1695638193913.jpeg',
    size: 2979
  }
]
```

2) Express Login application with file session store.

Index.js :-

```
const express = require('express')
const app = express()
const session = require('express-session')
const path = require('path')
const FileStore = require('session-file-store')(session)

const PORT = 3000
app.use(express.static('public'))
app.use(express.urlencoded({ extended: false }))

app.use(session({
   secret: 'secret',
   resave: false,
   saveUninitialized: false,
   store: new FileStore({ path: './session-data' })
}))

app.get('/', (req, res, next) => {
   res.sendFile(__dirname + '/public/login.html')
})

app.post('/login', (req, res) => {
   var username = req.body.username;
   var password = req.body.password;

   if (username && password) {
      //credential validation logic here, if credential matches than we store data in session
      req.session.loggedIn = true;
      req.session.username = username
      console.log(req.body)
      return res.redirect('/home')
   } else {
      return res.send('Please Enter Username And Password!')
```

```
    }
})

app.get('/home', (req, res) => {
    if (req.session.loggedIn) {
        console.log('logged in')
        res.sendFile(__dirname + '/public/home.html')
    } else {
        console.log('not logged in')
        res.sendFile(__dirname + '/public/login.html')

    }
})

app.listen(PORT, () => {
    console.log(`server listening on http://localhost:${PORT}`)
})
```

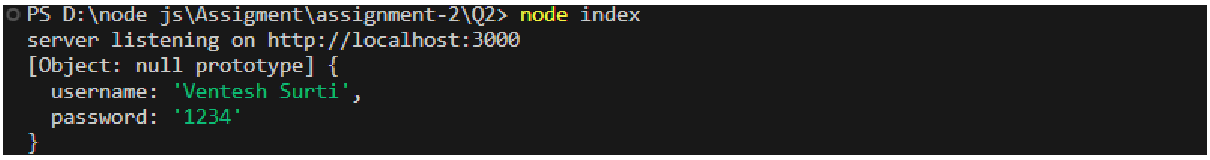
Home.html :-

```
<!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>Home Page</title>
</head>

<body>
    <div class="container">
        <h2>Home Page, You Are Authentic User</h2>
    </div>
</body>

</html>
```

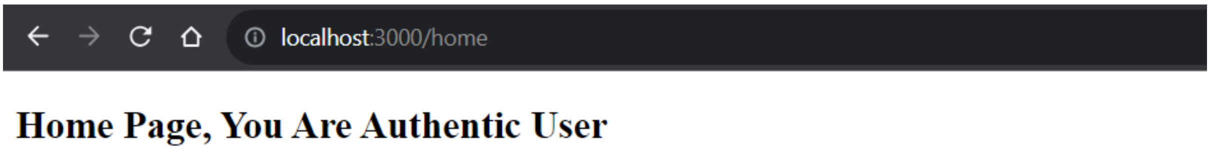
Login.html :-

```
<!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>Log In Page</title>
    <style>
        .mb-2 {
            margin-bottom: 2rem;
        }

        .mt-2 {
            margin-top: 2rem;
        }

        .flex-center {
            display: flex;
            justify-content: center;
            flex-direction: column;
            align-items: center;
        }

        * {
            font-size: 1.2rem;
        }
    </style>
</head>

<body>
    <div class="container flex-center">
        <div class="header">
            <h3>Log In</h3>
        </div>
        <div class="form-container mt-2 ">
            <form class="flex-center" action="/login" method="post">
                <div class="username mb-2">
                    <input type="text" placeholder="enter username" name="username" required>
                </div>
                <div class="password mb-2">
                    <input type="password" name="password" placeholder="enter password" id=""
required>
                </div>
                <div class="submit">
                    <input type="submit" value="Log In">
                </div>
            </form>
        </div>
    </div>
</body>

</html>
```

Output :-



```
PS D:\node js\Assigment\assignment-2\Q2> node index
server listening on http://localhost:3000
[Object: null prototype] {
  username: 'Ventesh Surti',
  password: '1234'
}
```



Home Page, You Are Authentic User

3) Express Login application with redis session store.

Output :-

4) Login with JWT, CRUD operations for students table with mongoose, express and any one template engine, Logout.

Database :-

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

//database config
const server = "127.0.0.1:27017"
const Database = "studentDB"
```

```
class database {
  constructor() {
    this._connect()
  }
  async _connect() {
    try {
      await mongoose.connect(`mongodb://${server}/${Database}`)
      console.log(`database connection successfull`)
    } catch (error) {
      console.error('Database connection error: ' + error);
    }
  }
}

module.exports = new database()
```

Middleware :-

```
const jwt = require('jsonwebtoken')

const signToken = async (req, res) => {
  //TODO: implement sign token logic here
}

const verifyToken = async (req, res, next) => {
  const token = req?.cookies?.token
  if (token) {
    //verify token
    if (jwt.verify(token, process.env.TOKEN_SECRET)) {
      // return res.send('token found and verified');
      next()
    } else {
      return res.status(401).end('Unauthorized access');
    }
  }
  else {
    //redirect to login
    return res.status(401).send('Token Missing')
  }
}

module.exports = { signToken, verifyToken }
```

Models :-

```
const mongoose = require('mongoose')

const studentSchema = new mongoose.Schema({
    name: String,
    email: String,
    password: String,
    age: Number,
    gender: String,
    city: String
})

module.exports = new mongoose.model('student', studentSchema, 'students')
```

Routes :-

```
const express = require('express');
const { verifyToken } = require('../middleware/token');
const student = express.Router();
const studentModel = require('../models/student')

student.use(verifyToken)

//create
student.get('/add', (req, res) => {
    res.render('add');
})
student.post('/', async (req, res) => {
    try {
        const newStudent = req.body;
        const student = new studentModel({
            ...newStudent
        })
        await student.save()
        res.redirect('/')
    } catch (error) {
        res.send('There was problem creating students')
    }
})

//read
student.get('/:id', async (req, res) => {
    try {
        const student = await studentModel.findById(req.params.id)
        student ? res.render('view', { data: student }) : res.render('index', { noDataError: 'No
students found' })
    } catch (error) {
        res.send('There was problem getting student')
    }
})

student.get('/', async (req, res) => {
  try {
    const students = await studentModel.find()
    students ? res.render('index', { data: students }) : res.render('index', { noDataError: 'No
students found' })
  } catch (error) {
    res.send('There was problem getting students')
  }
})

//update
student.get('/edit/:id', async (req, res) => {
  try {
    const student = await studentModel.findById(req.params.id)
    student ? res.render('update', { data: student }) : res.render('index', { noDataError:
'student not found' })
  } catch (error) {
    res.send('There was problem getting student')
  }
})

student.post('/edit/:id', async (req, res) => {
  console.log('student post /:id')
  try {
    const updatedStudent = req.body;
    const id = req.params.id;
    console.log('updated student: ', updatedStudent)
    delete updatedStudent['_id']
    await studentModel.findOneAndUpdate({ _id: id }, updatedStudent)
    return res.redirect('/')
  } catch (error) {
    return res.send('There was problem updating students')
  }
})

//delete
student.get('/delete/:id', async (req, res) => {
  try {
    const student = await studentModel.findById(req.params.id)
    student ? res.render('delete', { data: student }) : res.render('index', { noDataError: 'student
not found' })
  } catch (error) {
    res.send('There was problem getting student')
  }
})
student.post('/delete', async (req, res) => {
  console.log('delete student request')
  try {
    const id = req.body._id
    console.log("id: ", id)
```

```
        await studentModel.findOneAndDelete({ _id: id })
        res.redirect('/')
    } catch (error) {
        console.log('Error: ', error)
        res.send('There was problem deleting students')
    }
})

module.exports = student
```

Add.ejs :-

```
<!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">
    <link rel="stylesheet" href="/style.css" type="text/css">
    <title>Add Student</title>
</head>

<body>
    <div class="container flex-center">
        <div class="header">
            <h3>Add Student</h3>
        </div>
        <div class="err">
            <% if(typeof errors!=='undefined' ){ %>
                <p>
                    <%= errors.validationError %>
                </p>
                <% } %>
        </div>
        <div class="form-container mt-2 ">
            <form class="flex-center" action="/student/" method="post">
                <div class="username mb-2">
                    <input type="text" placeholder="enter your name" name="name" required>
                </div>
                <div class="password mb-2">
                    <input type="password" name="password" placeholder="enter password" id=""
required>
                </div>
                <div class="email mb-2">
                    <input type="email" name="email" id="" placeholder="enter your email" required>
                </div>
                <div class="city mb-2">
                    <input type="text" name="city" id="" placeholder="enter your city" required>
        </div>
        <div class="age mb-2">
          <input type="number" name="age" id="" min="10" max="80" placeholder="Age
here" required>
        </div>
        <div class="gender mb-2">
          <input type="radio" name="gender" value="Male" id="" checked>Male
          <input type="radio" name="gender" value="Female" id="">Female
        </div>
        <div class="submit">
          <input style="padding:0.4rem" type="submit" value="Add">
        </div>
      </form>
    </div>
  </div>
  <div class="links mt-2">
    <a href="/logout">Log Out</a>
  </div>
</body>

</html>
```

Delete.ejs :-

```
<!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>Student Detail</title>
  <link rel="stylesheet" href="/style.css" type="text/css">
</head>

<body>
  <% if(typeof(data)!=='undefined' ) { %>
    <div class="student-container">
      <form class="flex-center" action="/student/delete" method="post">
        <input type="hidden" name="_id" value="<%= data?._id %>">

        <div class="username mb-2">
          <input type="text" placeholder="enter your name" name="name" value="<%=
data?.name %>" disabled>
        </div>
        <div class="password mb-2">
          <input type="password" name="password" placeholder="enter password"
value="<%= data?.password %>"
            id="" disabled>
        </div>
        <div class="email mb-2">
          <input type="email" name="email" id="" placeholder="enter your email" value="<%=
data?.email %>"
            disabled>
        </div>
        <div class="city mb-2">
          <input type="text" name="city" id="" placeholder="enter your city" value="<%=
data?.city %>"
            disabled>
        </div>
        <div class="age mb-2">
          <input type="number" name="age" id="" min="10" max="80" placeholder="Age
here"
            value="<%= data?.age %>" disabled>
        </div>
        <div class="gender mb-2">
          <input disabled type="radio" name="gender" value="Male" id="" <%
if(data?.gender==='Male' )
            {%>checked<%} %>
            >Male
            <input disabled type="radio" name="gender" value="Female" id="" <%
if(data?.gender==='Female'
              ){%>
            checked<% }%>>Female
        </div>
        <div class="submit">
          <input style="padding:0.4rem" type="submit" value="Confirm Delete">
        </div>
      </form>
    </div>

    <div class="links">
      <a href="/student/">Go Back</a>
    </div>
    <div class="links mt-2">
      <a href="/logout">Log Out</a>
    </div>
    <% } else{ %>
      Student Not Available!
      <%}%>
</body>

</html>
```

Index.ejs :-

```
<!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>Home Page</title>
  <style>
    .err {
      color: rebeccapurple;
    }

    .mr-1 {
      margin-right: 0.3rem
    }

    .mt-2 {
      margin-top: 2rem;
    }
  </style>
</head>

<body>
  <div class="container">
    <div class="error">
      <% if(typeof(noDataError)!=='undefined' ) { %>
        <p class="err">
          <%= {noDataError} %>
        </p>
        <%}%>
          <% if(typeof(accessToken)!=='undefined' ) { %>
            <script>
              localStorage.setItem('token', "<%= JSON.stringify(accessToken) %>"); // <-
setup token into localStorage, (but i think it's not good place for that, and would be better get
token with another authorization request)
            </script>
            <%}%>
    </div>
    <div class="error">
      <% if(typeof(data)!=='undefined' ) { %>
        <table border="1">
          <thead>
            <tr>
              <th>name</th>
              <th>email</th>
              <th>age</th>
              <th>city</th>
              <th>gender</th>
              <th>Actions</th>
            </tr>
```

```
                    </thead>
                    <tbody>
                        <% data.forEach(student=>{
                            %>
                            <tr>
                                <td>
                                    <%= student.name %>
                                </td>
                                <td>
                                    <%= student.email %>
                                </td>
                                <td>
                                    <%= student.age %>
                                </td>
                                <td>
                                    <%= student.city %>
                                </td>
                                <td>
                                    <%= student.gender %>
                                </td>
                                <td>
                                    <div class="mr-1">
                                        <a href="/student/edit/<%=student._id%>" class="mr-1">edit</a>
                                        <a href="/student/delete/<%=student._id%>" class="mr-1">delete</a>
                                        <a href="/student/<%=student._id%>" class="mr-1">view</a>
                                    </div>
                                </td>
                            </tr>
                            <% }) %>
                    </tbody>
                </table>
                <%}%>
                    <div class="links mt-2">
                        <a href="/student/add">Add Student</a>
                    </div>
                    <div class="links mt-2">
                        <a href="/logout">Log Out</a>
                    </div>
        </div>
    </div>
</body>

</html>
```

Login.ejs :-

```
<!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>Log In Page</title>
    <style>
        .mb-2 {
            margin-bottom: 2rem;
        }

        .mt-2 {
            margin-top: 2rem;
        }

        .flex-center {
            display: flex;
            justify-content: center;
            flex-direction: column;
            align-items: center;
        }

        * {
            font-size: 1.2rem;
        }

        .err {
            color: red;
        }
    </style>
</head>

<body>
    <div class="container flex-center">
        <div class="header">
            <h3>Log In</h3>
        </div>
        <div class="err">
            <% if(typeof errors!=='undefined' ){ %>
                <p>
                    <%= errors.validationError %>
                </p>
                <% } %>
        </div>
        <div class="form-container mt-2 ">
            <form class="flex-center" action="/login" method="post">
                <div class="username mb-2">
                    <input type="text" placeholder="enter username" name="username" required>
                </div>
                <div class="password mb-2">
```

```
          <input type="password" name="password" placeholder="enter password" id=""
required>
        </div>
        <div class="submit">
          <input type="submit" value="Log In">
        </div>
      </form>
    </div>
  </div>
</body>

</html>
```

Update.ejs :-

```
<!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>Edit Student</title>
  <link rel="stylesheet" href="/style.css" type="text/css">

</head>

<body>
  <div class="container flex-center">
    <div class="header">
      <h3>Edit Student</h3>
    </div>
    <div class="err">
      <% if(typeof errors!=='undefined' ){ %>
        <p>
          <%= errors.validationError %>
        </p>
        <% } %>
    </div>
    <div class="form-container mt-2 ">
      <form class="flex-center" action="/student/edit/<%= data?._id %>" method="post">
        <input type="hidden" name="_id" value="<%= data?._id %>">

        <div class="username mb-2">
          <input type="text" placeholder="enter your name" name="name" value="<%=
data?.name %>" required>
        </div>
        <div class="password mb-2">
```

```
                <input type="password" name="password" placeholder="enter password"
value="<%= data?.password %>"
                    id="" required>
            </div>
            <div class="email mb-2">
                <input type="email" name="email" id="" placeholder="enter your email" value="<%=
data?.email %>"
                    required>
            </div>
            <div class="city mb-2">
                <input type="text" name="city" id="" placeholder="enter your city" value="<%=
data?.city %>"
                    required>
            </div>
            <div class="age mb-2">
                <input type="number" name="age" id="" min="10" max="80" placeholder="Age
here"
                    value="<%= data?.age %>" required>
            </div>
            <div class="gender mb-2">
                <input type="radio" name="gender" value="Male" id="" <% if(data?.gender==='Male'
) {%>checked<%} %>
                    >Male
                    <input type="radio" name="gender" value="Female" id="" <%
if(data?.gender==='Female' ){%>
                    checked<% }%>>Female
            </div>
            <div class="submit">
                <input style="padding:0.4rem" type="submit" value="Update">
            </div>
          </form>
        </div>
    </div>
    <div class="links mt-2">
        <a href="/logout">Log Out</a>
    </div>
</body>

</html>
```

View.ejs :-

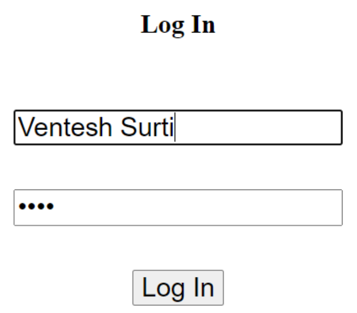
```
<!DOCTYPE html>
<html lang="en">

<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>Student Detail</title>
</head>

<body>
    <% if(typeof(data)!=='undefined' ) { %>
        <div class="student-container">
            <p>name: <%= data.name %>
            </p>
            <p>email: <%= data.email %>
            </p>
            <p>age: <%= data.age %>
            </p>
            <p>city: <%= data.city %>
            </p>
            <p>gender: <%= data.gender %>
            </p>
        </div>
        <div class="links">
            <a href="/student/">Go Back</a>
        </div>
        <div class="links mt-2">
            <a href="/logout">Log Out</a>
        </div>
        <% } else{ %>
            Student Not Available!
            <%}%>
</body>

</html>
```

Index.js :-

```
const express = require('express')
const app = express()
const PORT = 8000
const database = require('./db/database')
const student = require('./routes/student')
require('dotenv').config()
const jwt = require('jsonwebtoken')
const cookieParser = require('cookie-parser')
const accessTokenSecret = process.env.TOKEN_SECRET;
const studentModel = require('./models/student')
const verifyToken = require('./middleware/token')

app.use(cookieParser())
app.set('view engine', 'ejs')
app.use(express.json())
app.use(express.urlencoded({ extended: true }))
app.use(express.static(__dirname + '/public'));

app.use('/student', student)

app.get('/', (req, res) => {
    const token = req.cookies.token
    if (token) {
        //verify token
        if (jwt.verify(token, process.env.TOKEN_SECRET)) {
            return res.redirect('/student')
        } else {
            return res.status(401).end('Unauthorized access');
        }
    }
    else {
        //redirect to login
        return res.render('login')
    }
})

app.post('/login', async (req, res) => {
    let { username, password } = req.body
    if (username && password) {
        try {
            let result = await studentModel.find({ name: username, password: password })
            if (result.length === 1) {
                //Generate Token
                const accessToken = jwt.sign({ name: username, password: password },
accessTokenSecret)
                res.cookie('token', accessToken, { httpOnly: true });
                return res.redirect('/student')
                // return res.render('index', { session: result[0], accessToken: accessToken })
            } else {
                res.render('login', { errors: { validationError: 'Enter Valid Username Or Password' } })
            }
        } catch (error) {
            res.render('login', { errors: { validationError: 'There Was Problem While Log In.' } })
        }
    } else {
        res.render('login', { errors: { AllFieldsError: 'Please Enter Username And Password' } })
    }
})

app.get('/logout', (req, res) => {
    res.clearCookie('token')
    res.render('login')
})
```

```
app.listen(PORT, () => {
    console.log(`app listening on http://localhost:${PORT}`)
})
```

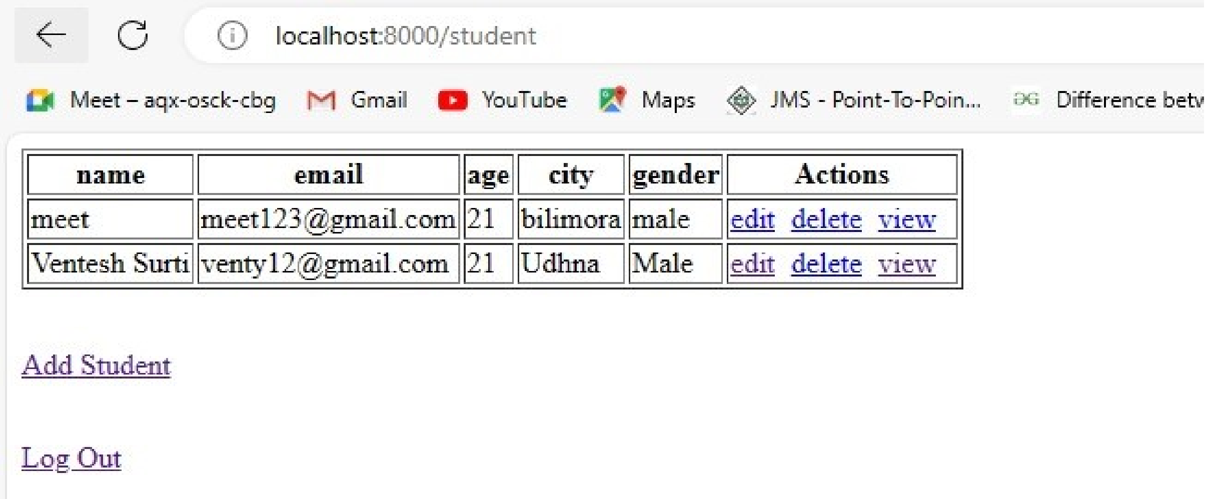
Output :-



Log In

Ventesh Surti

••••



name	email	age	city	gender	Actions
meet	meet123@gmail.com	21	bilimora	male	edit delete view
Ventesh Surti	venty12@gmail.com	21	Udhna	Male	edit delete view

Add Student

Log Out

5) Login with JWT, CRUD operations for students table with mongoose, express and frontend(html,css,javascript/jquery/angularjs), Logout.

Auth :-

```
const jwt = require('jsonwebtoken')

const sign = (data) => {
    const token = jwt.sign({ ...data }, process.env.TOKEN_SECRET, { algorithm: 'HS256',
expiresIn: process.env.EXPIRY })
    return token
}

const verify = (req, res, next) => {
    let token = req.headers["authorization"] || req.headers["x-access-token"];
    token = token?.split(" ")[1]
    if (token) {
        try {
            if (jwt.verify(token, process.env.TOKEN_SECRET)) {
                return next()
            } else {
                return res.status(401).send('Unauthorized Access')
            }
        } catch (JsonWebTokenError) {
            return res.status(401).send('Something went wrong!');
        }
    } else {
        return res.status(401).send('Unauthorized Access')
    }
}

module.exports = { sign, verify }
```

Database :-

```
var mongoose = require('mongoose');
const DB_URL = process.env.DB_URL
class database {
    constructor() {
        this._connect()
    }
    async _connect() {
        try {
            await mongoose.connect(DB_URL)
            console.log(`database connection successfull`)
        } catch (error) {
            console.error('Database connection error: ' + error);
        }
    }
}

module.exports = new database()
```

Model :-

```
const mongoose = require('mongoose')
const studentSchema = new mongoose.Schema({
    name: String,
    email: String,
    password: String,
    age: Number,
    gender: String,
  city: String
})

module.exports = mongoose.model('student', studentSchema, 'students')
```

Routes :-

```
const express = require('express')
const app = express.Router()

//model
const student = require('../models/studentModel')

//getting all students
app.get('/', async (req, res) => {
  try {
    const data = await student.find()
    if (data) {
      return res.send(data)
    } else {
      return res.status(404).send('No Data Found')
    }
  } catch (error) {
    console.error(error);
    return res.status(500).send('Something went wrong')
  }
})

//getting single student
app.get('/:id', async (req, res) => {
  const id = req.params.id
  try {
    const data = await student.findById(id)
    if (data) {
      return res.send(data)
    } else {
      return res.status(404).send('No Data Found')
    }
  } catch (error) {
    console.log(error)
    res.status(500).send('Something went wrong')
  }
})

//creating student
app.post('/', async (req, res) => {
  try {
    const reqData = req.body
    const newStudent = new student({ ...reqData })
```

```
        const response = await newStudent.save()
        res.json("Student added successfully")
    } catch (error) {
        console.log(error)
        res.status(500).send('Something went wrong')
    }
})

//updating student
app.put('/:id', async (req, res) => {
    try {
        const reqData = req.body
        const id = req.params.id
        const response = await student.findByIdAndUpdate(id, reqData)
        if (response) {
            return res.json("Student updated successfully")
        } else {
            return res.status(404).send('No Data Found For Given Id')
        }
    } catch (error) {
        console.error(error);
        res.status(500).send('Something went wrong')
    }
})

//deleting student
app.delete('/:id', async (req, res) => {
    try {
        const id = req.params.id
        const response = await student.findByIdAndDelete(id)
        if (response) {
            res.json('student deleted successfully')
        } else {
            res.status(500).json('Something went wrong')
        }
    } catch (error) {
        console.log(error)
        res.status(500).json('Something went wrong')
    }
})

module.exports = app
```

index.js :-

```
const express = require('express')
const app = express()
const cors = require('cors')
const { sign, verify } = require('./auth/authenticate')
```

```
require('dotenv').config()
//database
require('./db/database')

//router
const studentRouter = require('./routes/studentRoute')

//model
const student = require('./models/studentModel')

//config
const PORT = process.env.PORT

//cors
app.use(cors())

//body-parser and json for sending json and reading body
app.use(express.json())
app.use(express.urlencoded({ extended: true }))

app.get('/', (req, res) => {
  console.log('default response')
  res.send('DEFAULT RESPONSE FROM SERVER')
})

//login request
app.post('/login', async (req, res) => {
  let { username, password } = req.body
  username = username
  password = password
  if (username && password) {
    let response = await student.find({ name: username, password: password });
    if (response.length === 1) {
      return res.json(sign({ username }))
    } else {
      return res.status(401).json('Invalid username or password')
    }
  } else {
    return res.status(401).json('Please provide username and password')
  }
})

app.use('/get-token', sign)

app.use('/student', [verify], studentRouter)

app.listen(PORT, () => {
  console.log(`app listening on http://localhost:${PORT}`);
})
```

Index.html :-

```
<!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>Home Page</title>
  <style>
    .err {
      color: rebeccapurple;
    }

    .mr-1 {
      margin-right: 0.3rem
    }

    .mt-2 {
      margin-top: 2rem;
    }
  </style>
</head>

<body>
  <div class="container">
    <div class="error">
      <table border="1">
        <thead>
          <tr>
            <th>name</th>
            <th>email</th>
            <th>age</th>
            <th>city</th>
            <th>gender</th>
            <th>Actions</th>
          </tr>
        </thead>
        <tbody id="tableBody">
        </tbody>
      </table>
      <div class="links mt-2">
        <a href="./add.html">Add Student</a>
      </div>
      <div class="links mt-2">
        <a href="./logout.html">Log Out</a>
      </div>
    </div>
  </div>
</body>

<script>
  const tableBody = document.getElementById('tableBody')
  const fetchStudents = async () => {
    const url = "http://localhost:8000/student"
    const response = await fetch(url, {
      headers: {
        'Authorization': `Bearer ${localStorage.getItem('authToken')}`
      }
    })
    return response.json()
  }
  fetchStudents().then(data => {
    data.forEach(student => {
      tableBody.innerHTML = tableBody.innerHTML + `
      <tr>
                <td>
                  ${student.name}
                </td>
                <td>
                  ${student.email}
                </td>
                <td>
                  ${student.age}
                </td>
                <td>
                  ${student.city}
                </td>
                <td>
                  ${student.gender}
                </td>
                <td>
                  <div class="mr-1">
                    <a href="./update.html?id=${student._id}" class="mr-1">edit</a>
                    <a href="./delete.html?id=${student._id}" class="mr-1">delete</a>
                    <a href="./view.html?id=${student._id}" class="mr-1">view</a>
                  </div>
                </td>
              </tr>
      `
    });
  })
</script>
</html>
```

View.html :-

```
<!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>Student Detail</title>
</head>

<body>
   <div class="student-container" id="studentContainer">
   </div>
   <div class="links">
      <a href="./student/">Go Back</a>
   </div>
   <div class="links mt-2">
      <a href="./logout.html">Log Out</a>
   </div>
</body>
<script>
   const studentContainer = document.getElementById('studentContainer')
   const fetchStudent = async (id) => {
      console.log('fetchStudent')
      const url = `http://localhost:8000/student/${id}`
      const response = await fetch(url, {
         headers: {
            'Authorization': `Bearer ${localStorage.getItem('authToken')}`
         }
      })
      return response.json()
   }
   const searchUrl = window.location.search
   id = searchUrl?.split("?")[1]?.split("=")[1]
   if (id) {
      fetchStudent(id).then(data => {
         studentContainer.innerHTML = `
      <p>name: ${data.name}</p>
      <p>email: ${data.email}</p>
      <p>age: ${data.age}</p>
      <p>city: ${data.city}</p>
      <p>gender: ${data.gender}</p>
```

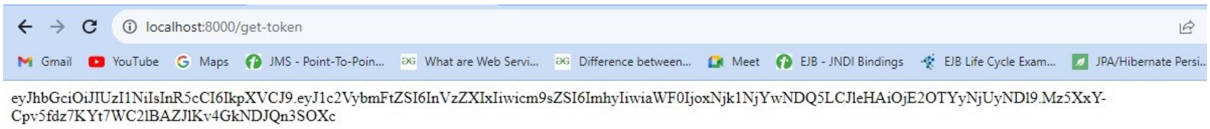
```
        `
        })
    } else {
        alert("Please provide student id")
    }

</script>

</html>
```

Login.html :-

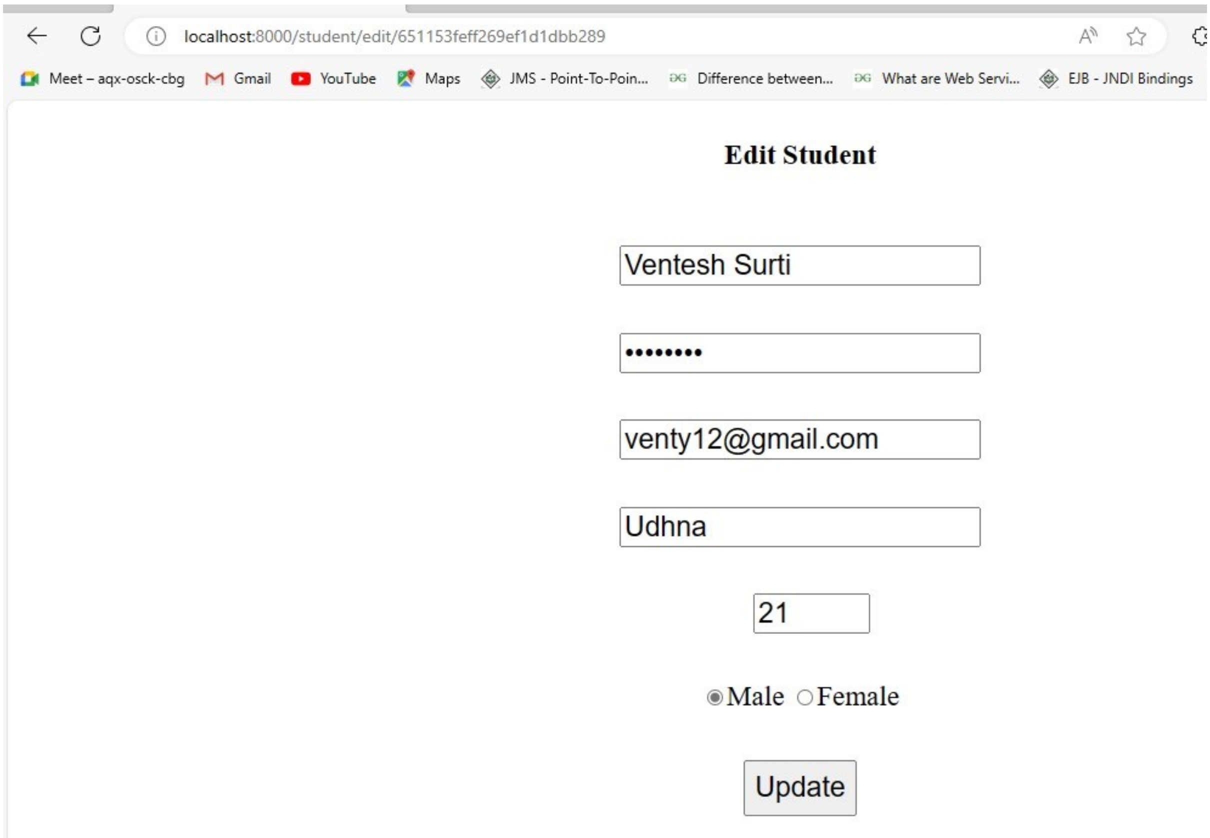
```
<!DOCTYPE html>
<html lang="en">

<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>Log In Page</title>
    <style>
        .mb-2 {
            margin-bottom: 2rem;
        }

        .mt-2 {
            margin-top: 2rem;
        }

        .flex-center {
            display: flex;
            justify-content: center;
            flex-direction: column;
            align-items: center;
        }

        * {
            font-size: 1.2rem;
        }

        .err {
            color: red;
        }
    </style>
```

```
</head>

<body>
   <div class="container flex-center">
      <div class="header">
         <h3>Log In</h3>
      </div>
      <div class="err">
      </div>
      <div class="form-container mt-2 ">
         <div class="flex-center">
            <div class="username mb-2">
               <input type="text" placeholder="enter username" name="username"
id="txtusername" required>
            </div>
            <div class="password mb-2">
               <input type="password" name="password" placeholder="enter password"
id="txtpassword" required>
            </div>
            <div class="submit">
               <input type="submit" value="Log In" onclick="handleLogin()">
            </div>
         </div>
      </div>
   </div>
</body>

<script>
   const usernameField = document.getElementById("txtusername")
   const passwordField = document.getElementById("txtpassword")

   const handleLogin = async () => {
      let username = usernameField.value
      let password = passwordField.value
      postData('http://localhost:8000/login', { username, password })
         .then((data) => {
            if (data) {
               localStorage.setItem('authToken', data)
               window.location.replace('./index.html')
            }
         }).catch(error => {
            console.log(error)
         });
   }

   async function postData(url = ", data = {}) {
      // Default options are marked with *
      try {
         const response = await fetch(url, {
            method: 'POST', // *GET, POST, PUT, DELETE, etc.
            mode: 'cors', // no-cors, *cors, same-origin
            cache: 'no-cache', // *default, no-cache, reload, force-cache, only-if-cached
            credentials: 'same-origin', // include, *same-origin, omit
            headers: {
              'Content-Type': 'application/json'
              // 'Content-Type': 'application/x-www-form-urlencoded',
            },
            redirect: 'follow', // manual, *follow, error
            referrerPolicy: 'no-referrer', // no-referrer, *no-referrer-when-downgrade, origin,
origin-when-cross-origin, same-origin, strict-origin, strict-origin-when-cross-origin, unsafe-url
            body: JSON.stringify(data) // body data type must match "Content-Type" header
          });
          if (response.status === 200) {
            return response.json(); // parses JSON response into native JavaScript objects
          } else {
            let msg = await response.json()
            alert(msg)
          }
        } catch (error) {
          alert(error)
        }

    }

</script>

</html>
```

Output :-



```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VybmFtZSI6InVzZXIxIiwicm9sZSI6ImhyIiwiaWF0IjoxNjk1NjYwNDQ5LCJleHAiOjE2OTYyNjUyNDl9.Mz5XxY-
Cpv5fdz7KYt7WC2lBAZJlKv4GkNDJQn3SOXc
```



Edit Student

Ventesh Surti

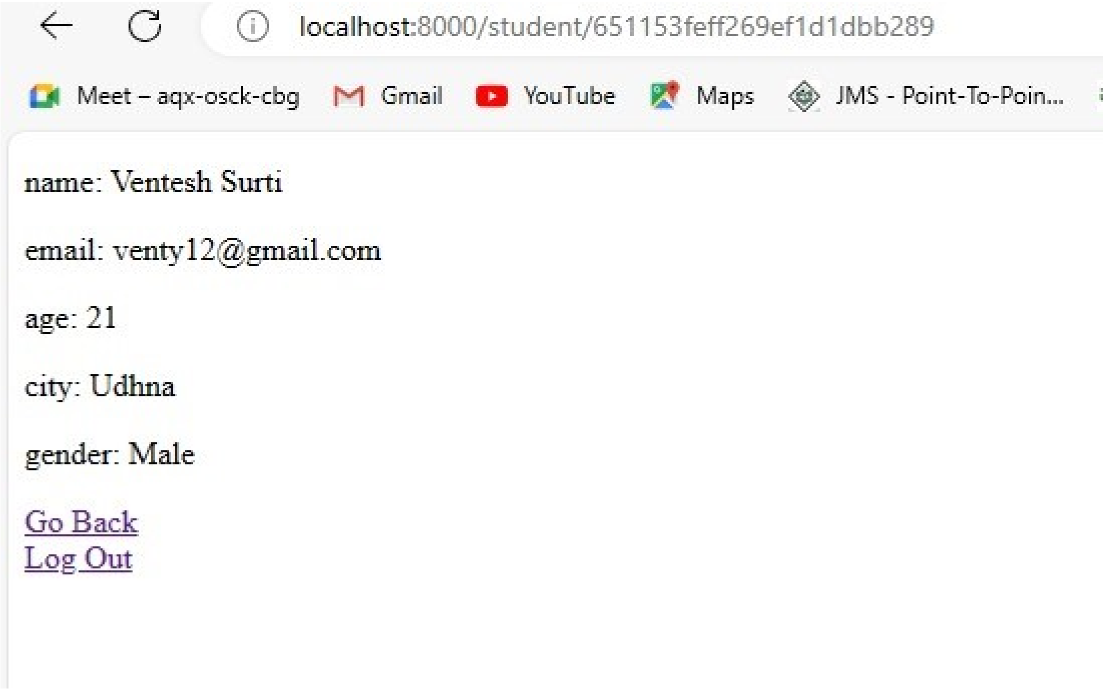
••••••••

venty12@gmail.com

Udhna

21

● Male ○ Female



name: Ventesh Surti

email: venty12@gmail.com

age: 21

city: Udhna

gender: Male