**Steps:**

1. **node -v**
2. **npm -v**

**Setup Instructions**

First, install dependencies:

1. **npm list express**
2. **npm install express express-session**
3. **npm init -y**

**Check if express-session is installed locally:**

**npm list express-session**

**PROGRAM-5: ExpressJS – Cookies, Sessions, Authentication.**

**a. Write a program for session management using cookies and sessions.**

**ExpressJS program** with:

✅ Session creation on login  
✅ Accessing session data  
✅ Logout and session destroy

**✅5A .js**

const express = require('express');

const session = require('express-session');

const app = express();

app.use(session({

secret: 'abc',

resave: false,

saveUninitialized: true

}));

// Login and set session

app.get('/login', (req, res) => {

req.session.username = 'Ambika';

res.send('User logged in');

});

// Access protected page

app.get('/profile', (req, res) => {

if (req.session.username) {

res.send(`Welcome ${req.session.username}`);

} else {

res.send('Please login first');

}

});

// Logout and destroy session

app.get('/logout', (req, res) => {

req.session.destroy();

res.send('User logged out');

});

app.listen(3000, () => {

console.log('http://localhost:3000');

});

**🔗 How to Use**

1. Visit http://localhost:3000/login → Session created
2. Visit http://localhost:3000/profile → Shows username
3. Visit http://localhost:3000/logout → Session destroyed
4. Visit /profile again → Asks to login again
5. **b. Write a program for user authentication**.

**Steps:**

* 1. **node -v**
  2. **npm -v**

**Setup Instructions**

First, install dependencies:

* 1. **npm list express (if version number is shown as empty u have to install express) i.e, --**🡪 **npm install express**
  2. **npm install express ejs body-parser**
  3. **npm install express express-session**
  4. **npm init -y**

**# PROGRAM CODE**

const express = require('express');

const bodyParser = require('body-parser');

const session = require('express-session');

const app = express();

const PORT = 3000;

// Middleware

app.use(bodyParser.urlencoded({ extended: true }));

app.use(session({

secret: 'secret-key',

resave: false,

saveUninitialized: true

}));

// Dummy user credentials

const USER = {

username: 'admin',

password: '1234'

};

// Login page

app.get('/', (req, res) => {

res.send(`

<h2>Login</h2>

<form method="POST" action="/login">

<input type="text" name="username" placeholder="Username" required/><br/>

<input type="password" name="password" placeholder="Password" required/><br/>

<button type="submit">Login</button>

</form>

`);

});

// Login handler

app.post('/login', (req, res) => {

const { username, password } = req.body;

if (username === USER.username && password === USER.password) {

req.session.user = username;

res.send(`<h2>Welcome, ${username}!</h2><a href="/logout">Logout</a>`);

} else {

res.send('<h3>Invalid credentials. <a href="/">Try again</a></h3>');

}

});

// Logout handler

app.get('/logout', (req, res) => {

req.session.destroy();

res.redirect('/');

});

// Start server

app.listen(PORT, () => {

console.log(`Server running at http://localhost:${PORT}`);

});

**Test with Browser:**

1. Visit http://localhost:3000 to see the login form.
2. Enter:
   * **Username**: admin
   * **Password**: 1234
3. You'll be logged in with a welcome message.