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CLASS	622-A

➢ Full Stack PRACTICE 8.2
- CODE
  server.js :::

```javascript
const express = require("express");
const jwt = require("jsonwebtoken");
const bodyParser = require("body-parser");

const app = express();
app.use(bodyParser.json());

const SECRET_KEY = "mysecretkey";

const user = {
  id: 1,
  username: "testuser",
  password: "password123",
};

//  LOGIN ROUTE — issues a JWT token
app.post("/login", (req, res) => {
  const { username, password } = req.body;

  if (username === user.username && password === user.password) {
    const token = jwt.sign({ id: user.id, username: user.username }, SECRET_KEY,
{
```

```javascript
      expiresIn: "1h",
    });
    res.json({ token });
  } else {
    res.status(401).json({ message: "Invalid credentials" });
  }
});

// JWT VERIFICATION MIDDLEWARE
function verifyToken(req, res, next) {
  const authHeader = req.headers["authorization"];

  if (!authHeader) {
    return res.status(401).json({ message: "Token missing" });
  }

  const token = authHeader.split(" ")[1];

  jwt.verify(token, SECRET_KEY, (err, decoded) => {
    if (err) {
      return res.status(403).json({ message: "Invalid token" });
    }
    req.user = decoded;
    next();
  });
}

// PROTECTED ROUTE — accessible only with valid JWT
app.get("/protected", verifyToken, (req, res) => {
  res.json({
    message: "You have accessed a protected route!",
    user: req.user,
  });
});

const PORT = 3000;
app.listen(PORT, () => console.log(`Server running on
http://localhost:${PORT}`));
```

OUTPUT:

POST: http://localhost:3000/login   Send

Params Headers Auth **Body** ●   </>   Request **POST** Response **200**

```
1 ▼ {
2      "id": 1,
3      "username": "testuser",
4      "password": "password123"
5    }
```

▶ HTTP/1.1 **200 OK** (6 headers)

```
1 ▼ {
2      "token":
       "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwidXNlcm
       5hbWUiOiJ0ZXN0dXNlciIsImlhdCI6MTc1MjQ3NTMzOSwiZXhwIjoxNz
       UyNDc4OTM5fQ.Bt0iYA9USb9WGc7pRMH6IhQ2NSwIrKYIlE2mrUhOOmE
       "
3    }
```

GET: http://localhost:3000/protected   Send

Params Headers Auth **Body**   </>   Request **GET** Response **401**

▶ HTTP/1.1 **401 Unauthorized** (6 headers)

```
1 ▼ {
2      "message": "Token missing"
3    }
```

GET: http://localhost:3000/protected   Send

Params Headers **Auth** ● Body   </>   Request **GET** Response **200**

```
⌐ eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ  ⊙
  9.eyJpZCI6MSwidXNlcm5hbWUiOiJ0ZXN0d
  XNlciIsImlhdCI6MTc1MjQ3NTMzOSwiZXhw
  IjoxNzUyNDc4OTM5fQ.Bt0iYA9USb9WGc7p
  RMH6IhQ2NSwIrKYIlE2mrUhOOmE
```

▶ HTTP/1.1 **200 OK** (6 headers)

```
1 ▼ {
2      "message": "You have accessed a protected route!",
3 ▼    "user": {
4        "id": 1,
5        "username": "testuser",
6        "iat": 1752475339,
7        "exp": 1752478939
8      }
9    }
```