IT314 Software Engineering

Lab- 8 Report

Central Mess Management Software
Group: G32

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We are going to test 'login' module of our backend using the frameworks like mocha & chai

Login function which we are going to test:

```
app.post('/login', async (req, res) => {
    try {
        const username = req.body.username;
        const password = req.body.password;
        const user = await User.findOne({ username });
        // const isMatch = await bcrypt.compare(password, user.password);
        if (user && user.password === password && user.role === req.body.role)
{


            // req.session.user_id = user._id;
            res.status(201).render('home');
        } else {
            res.status(400).send('Invalid Login Details');
        }
    } catch (error) {
        res.status(400).send('Invalid Login Details');
    }
});
```

Test Cases:

1) User valid
2) User doesn't exist
3) Password invalid
4) Role invalid
5) Credentials invalid
6) Null username

Testing Code (Javascript):

```javascript
// Description: This file contains the test cases for the login route

let chai = require("chai");
let chaiHttp = require("chai-http");
chai.should();
chai.use(chaiHttp);
describe('Testing route /login', () => {
    const host = `http://localhost:3000`;
    const path = "/login";

    // Validating user
    it("User valid", (done) => {
        chai
            .request(host)
            .post(path)
            .send({
                username: 'deep9', password: 'working', role: 'manager'
            })
            .end(function (error, response, body) {
                response.should.have.status(201);
                done();
            });
    });
    it("User doesn't exist", (done) => {
        chai
            .request(host)
            .post(path)
            .send({
                username: 'gaurangggg', password: 'working', role: 'manager'
            })
            .end(function (error, response, body) {
                response.should.have.status(400);
                done();
            });
    });

    // password checking
    it("Password invalid", (done) => {
        chai
            .request(host)
```

```javascript
                .post(path)
                .send({
                    username: 'deep9', password: 'working22', role: 'manager'
                })
                .end(function (error, response, body) {
                    response.should.have.status(400);
                    done();
                });
        });

        // role checking
        it("Role invalid", (done) => {
            chai
                .request(host)
                .post(path)
                .send({
                    username: 'vrund1', password: 'T4#s9A', role: 'cadet'
                })
                .end(function (error, response, body) {
                    response.should.have.status(400);
                    done();
                });
        });

        // credentials checking
        it("Credentials invalid", (done) => {
            chai
                .request(host)
                .post(path)
                .send({
                    username: 'deep9', password: 'working333', role: 'cadet'
                })
                .end(function (error, response, body) {
                    response.should.have.status(400);
                    done();
                });
        });

        // null username
        it("Null Username", (done) => {
            chai
                .request(host)
                .post(path)
                .send({
                    username: '', password: 'working', role: 'manager'
```
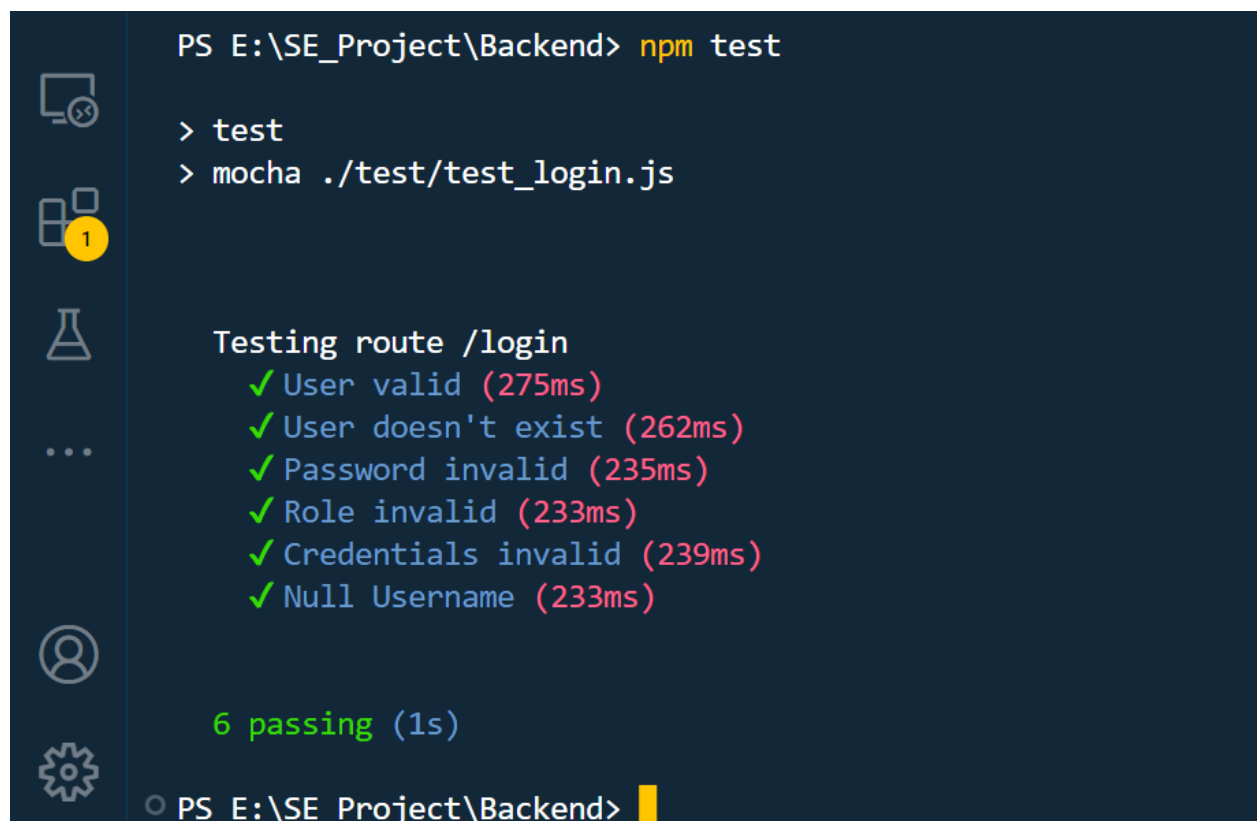
```
        })
        .end(function (error, response, body) {
            response.should.have.status(400);
            done();
        });
    });

});
```

Output :

```
PS E:\SE_Project\Backend> npm test

> test
> mocha ./test/test_login.js



   Testing route /login
     ✓ User valid (275ms)
     ✓ User doesn't exist (262ms)
     ✓ Password invalid (235ms)
     ✓ Role invalid (233ms)
     ✓ Credentials invalid (239ms)
     ✓ Null Username (233ms)


   6 passing (1s)

○ PS E:\SE Project\Backend>
```