Tugas 5 Unit Testing

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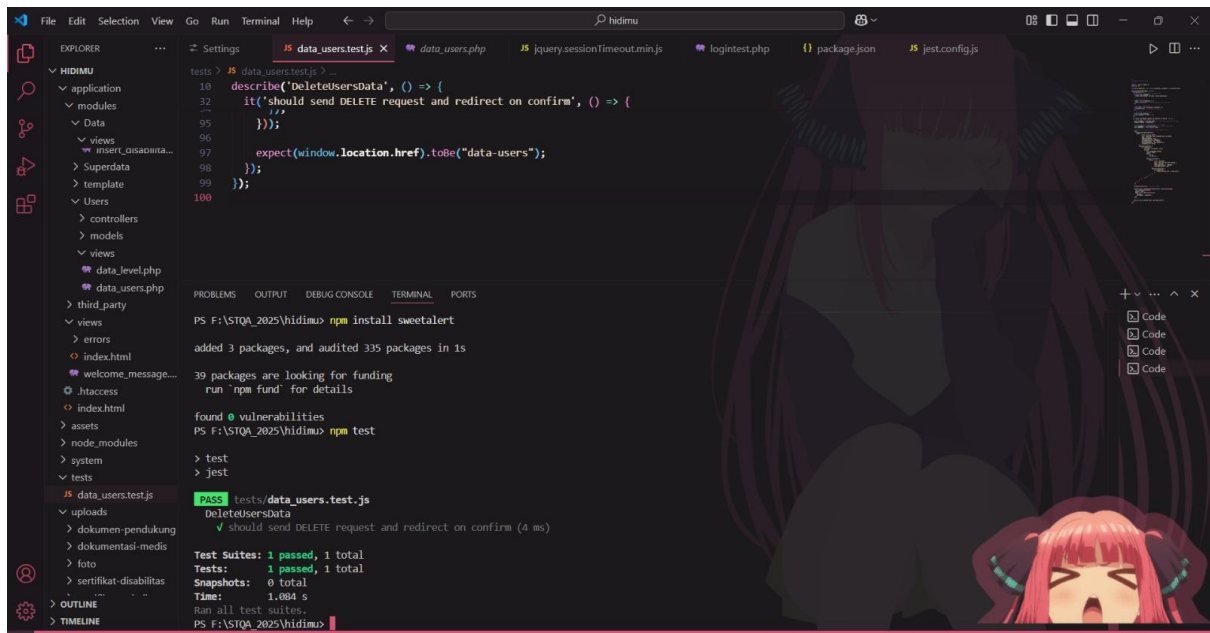FRISKA VENUNZA BAYU (20230140163)

a. Tentang Sistem

Website **http://data.hidimu.org** adalah sistem pendataan milik Himpunan Disabilitas Muhammadiyah (HIDIMU). Tujuannya untuk mencatat data anggota dan kegiatan penyandang disabilitas di lingkungan Muhammadiyah. Melalui situs ini, pengurus dan anggota bisa mengelola informasi keanggotaan secara online.

b. Hasil Unit Testing

1. User Management, Delete data user(B5)

Gambar 1. Hasil Unit Testing BR 5 – delete data user

Gambar 1:

unit test JavaScript pakai Jest untuk fungsi DeleteUsersData(id):

- **Mock**: SweetAlert, jQuery AJAX, dan token CSRF.

- **Fungsi diuji**: Mengirim request POST ke "data-users/delete" dan redirect ke "data-users" jika konfirmasi OK.

- **Assertion**: Memastikan AJAX dipanggil dengan data yang benar dan redirect bekerja.

Gambar 2:

hasil test di terminal:

- Semua test **berhasil (PASS)**.

- Fungsi DeleteUsersData **berjalan sesuai harapan** dalam simulasi.
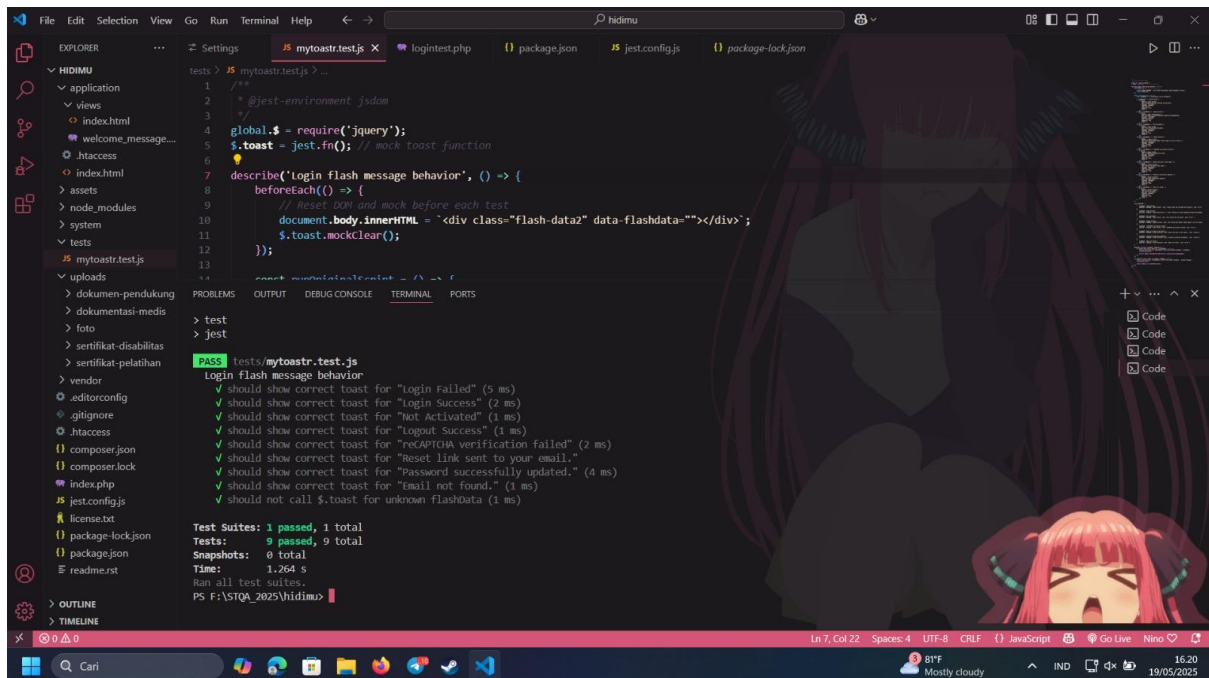
2. Sign In/Login(B1)

```javascript
const testCases = [
    {
        flashData: "Login Failed",
        expected: { heading: "Login Failed!"
, text:
"Please Check Your Username and Password", icon:
 "error" }
    },
    {
        flashData: "Login Success",
        expected: { heading:
"Login Successfully :)", text:
"Welcome to Sistem Pendataan Disabilitas Muhamma
diyah"
, icon: "success" }
    },
    {
        flashData: "Not Activated",
        expected: { heading: "Login Failed"
, text: "Your Account Not Activated", icon:
"error" }
    },
    {
        flashData: "Logout Success",
        expected: { heading:
"Logout Success", text:
"Your Session Was Ended, Please Login to use our
system :)"
, icon: "success" }
    },
    {
        flashData:
"reCAPTCHA verification failed",
        expected: { heading: "Login Failed"
, text: "reCAPTCHA verification failed", icon:
"error" }
    },
    {
        flashData:
"Reset link sent to your email.",
        expected: { heading:
"Forgot Password", text:
"Reset link sent to your email.", icon:
"success" }
    },
    {
        flashData:
"Password successfully updated.",
        expected: { heading:
"Forgot Password", text:
"Password successfully updated.", icon:
"success" }
    },
    {
        flashData: "Email not found.",
        expected: { heading:
"Forgot Password", text: "Email not found.",
icon: "error" }
    }
];

testCases.forEach(({ flashData, expected })
=> {
    it(`should show correct toast for "${
flashData}"`, () => {
        document.querySelector(
'.flash-data2').setAttribute('data-flashdata',
flashData);
        runOriginalScript();

        expect($.toast).toHaveBeenCalledWith
(expect.objectContaining(expected));
    });
});

it(
'should not call $.toast for unknown flashData'
, () => {
        document.querySelector('.flash-data2').
setAttribute('data-flashdata', 'Unknown Message'
);
        runOriginalScript();

        expect($.toast).not.toHaveBeenCalled();
    });
});
```

```javascript
            } else if (flashData2 ===
"reCAPTCHA verification failed") {
                $.toast({
                    heading: "Login Failed",
                    text:
"reCAPTCHA verification failed",
                    position: "top-center",
                    loaderBg: "#ff6849",
                    icon: "error",
                    hideAfter: 3500,
                    stack: 6,
                });
            } else if (flashData2 ===
"Reset link sent to your email.") {
                $.toast({
                    heading: "Forgot Password",
                    text:
"Reset link sent to your email.",
                    position: "top-center",
                    loaderBg: "#ff6849",
                    icon: "success",
                    hideAfter: 3500,
                    stack: 6,
                });
            } else if (flashData2 ===
"Password successfully updated.") {
                $.toast({
                    heading: "Forgot Password",
                    text:
"Password successfully updated.",
                    position: "top-center",
                    loaderBg: "#ff6849",
                    icon: "success",
                    hideAfter: 3500,
                    stack: 6,
                });
            } else if (flashData2 ===
"Email not found.") {
                $.toast({
                    heading: "Forgot Password",
                    text: "Email not found.",
                    position: "top-center",
                    loaderBg: "#ff6849",
                    icon: "error",
                    hideAfter: 3500,
                    stack: 6,
                });
            }
    };
```

```
1   /**
2    * @jest-environment jsdom
3    */
4   global.$ = require('jquery');
5   $.toast = jest.fn(); // mock toast function
6
7   describe('Login flash message behavior', () => {
8       beforeEach(() => {
9           // Reset DOM and mock before each test
10          document.body.innerHTML =
    `<div class="flash-data2" data-flashdata=""></di
    v>`
    ;
11          $.toast.mockClear();
12      });
13
14      const runOriginalScript = () => {
15          const flashData2 = $(".flash-data2").
    data("flashdata");
16
17          if (flashData2 === "Login Failed") {
18              $.toast({
19                  heading: "Login Failed!",
20                  text:
    "Please Check Your Username and Password",
21                  position: "top-center",
22                  loaderBg: "#ff6849",
23                  icon: "error",
24                  hideAfter: 3500,
25                  stack: 6,
26              });
27          } else if (flashData2 ===
    "Login Success") {
28              $.toast({
29                  heading: "Login Successfully :)"
    ,
30                  text:
    "Welcome to Sistem Pendataan Disabilitas Muhamma
    diyah"
    ,
31                  position: "top-right",
32                  loaderBg: "#ff6849",
33                  icon: "success",
34                  hideAfter: 3500,
35                  stack: 6,
36              });
37          } else if (flashData2 ===
    "Not Activated") {
38              $.toast({
39                  heading: "Login Failed",
40                  text:
    "Your Account Not Activated",
41                  position: "top-center",
42                  loaderBg: "#ff6849",
43                  icon: "error",
44                  hideAfter: 3500,
45                  stack: 6,
46              });
47          } else if (flashData2 ===
    "Logout Success") {
48              $.toast({
49                  heading: "Logout Success",
50                  text:
    "Your Session Was Ended, Please Login to use our
    system :)"
    ,
51                  position: "top-center",
52                  loaderBg: "#ff6849",
53                  icon: "success",
54                  hideAfter: 3500,
55                  stack: 6,
56              });
```

Pada testing ini yang diuji adalah sistem dapat memberikan notifikasi yang tepat sesuai scenarionya. Berikut skenario yang diuji:

1. Login gagal karena username atau passwod salah, flash data: 'login failed', toast "please check your username and password"
2. Login sukses, flash data: 'login success', toast: "welcome to sistem penataan disabilitas muhammadiyah"
3. Logout sukses, flashdata: 'logout success',
4. Gaga verifikasi recaptcha, flashdata: 'recaptcha verification failed', toast "recaptcha verfication field"
5. Reset password - Link terkirim, flashdata: 'reset link sent to your email', toast: sama seperti flash message
6. Reset password- berhasil diubah
   Flash data: password succesfully update, toast: sama seperti flash message.
7. Reset password – email tidak ditemukan, flashdata 'email not found', toast:sama seperti flash message.

Testing yang di lakukan sesuai dengan BR, login berhasil, login tidak berhasil