



# Software Metrics

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# Cavemanomics

## Members

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# Index.js

## External Inputs:

- POST request.body data for api/login, api/register, Postgres server responses
- Complexity: 4 (Average) x 2

## External Outputs

- Response status, accompanying JSON from api/login, api/register
- Complexity: 5 (Average) x 2

## External Inquiries

- GET /api/users, directly reports user table information
- Complexity: 4 (Average) x 1

## Internal Logical Files (ILFS)

- PostGRES users table, stores user info to be queried by api/users endpoint
- Complexity: 10 (Average) x 1

## External Logical Files (ELFS)

- Dotenv file for secret data
- Complexity: 5 (Simple) x 1

$$\text{Total Complexity} = 8 + 10 + 4 + 10 + 5 = 37$$



# Register Function

## External Inputs:

- Username, email, password from the form fields
- Complexity: 3 (Simple) x 3

## External Outputs:

- Error messages on error, navigation on success, render Register React Component
- Complexity: 4 (Simple) x 2 + 7 (Complex) x 1

External Inquiries: None

Internal Logical Files: None

## External Logical Files:

- CSS File and backend API endpoint
- CSS file provides styling for frontend Register component, backend endpoint posts the user info to database
- Complexity: 7 (Average) x 1 + 10 (Complex) x 1

Total Complexity:  $9 + 15 + 17 = 41$



# Login Function

## External Inputs:

- Username, password from the form fields
- Complexity: 3 (Simple) x 2

## External Outputs:

- Error messages on error, navigation on success, render Register React Component, export JWT to localStorage
- Complexity: 4 (Simple) x 2 + 7 (Complex) x 2

External Inquiries: None

Internal Logical Files: None

## External Logical Files:

- CSS File and backend API endpoint and Auth function
- CSS file provides styling for frontend Register component, backend endpoint gets user info from database and Auth function wraps components in an auth require for login
- Complexity: 7 (Average) x 1 + 10 (Complex) x 2

Total Complexity:  $9 + 22 + 27 = 58$



# Auth Function

## External Inputs:

- JSON token, other react component
- Complexity: 4 (Average) x 2

## External Outputs:

- On error, renders login component. On success, renders child input component and sends user id that's logged in
- Complexity: 7 (Complex) x 2

External Inquiries: None

Internal Logical Files: None

## External Logical Files:

- ENV file provides secret token to decrypt token
- Complexity: 7 (Average) x 1

Total Complexity:  $8 + 14 + 7 = 29$