

This is a testing document to understand what cases are tested:

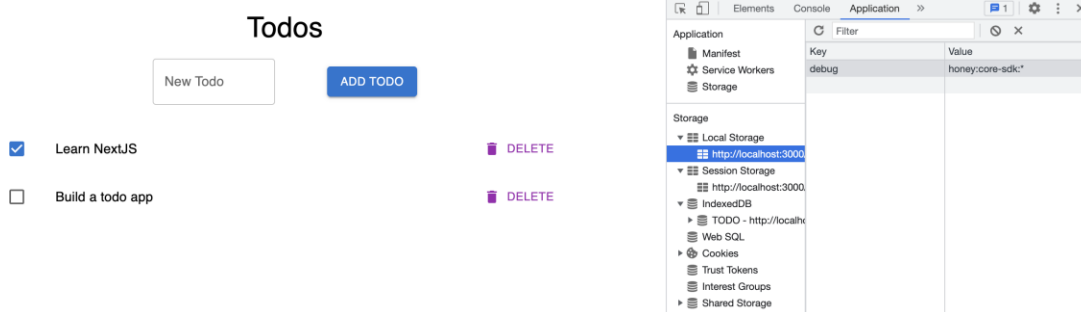
Note: There were some situations in which testing was not possible in an automated way but is assumed as manual testing steps.

The test and analysis included 2 major parts namely, Frontend and Backend. Frontend includes e2e test carried out in **Playwright test suite** and manual check of localForage variables. Backend testing is done mainly by API testing through **Mocha, Chai** and **Supertest**.

1. **For e2e testing**, Playwright test suite is used

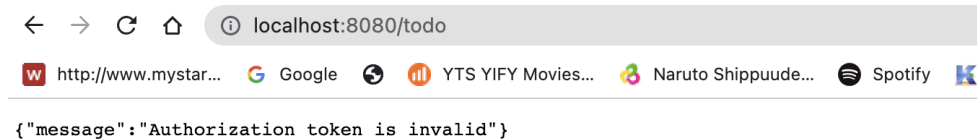
- These tests are based on how a user will interact with the Frontend application in this case with the Todo Application
- The e2e test also includes a video which is autogenerated on every spec file execution.

2. **For localForage**, localStorage section of the Application tab in the inspect element is first used to verify whether localForage stores values for key-pair in localStorage. Due to configuration issue, it does not show the localStorage variables. **I made quite a few attempts to test this case, but it seems there is a logic missing to embed it in the localStorage of the Browser.**



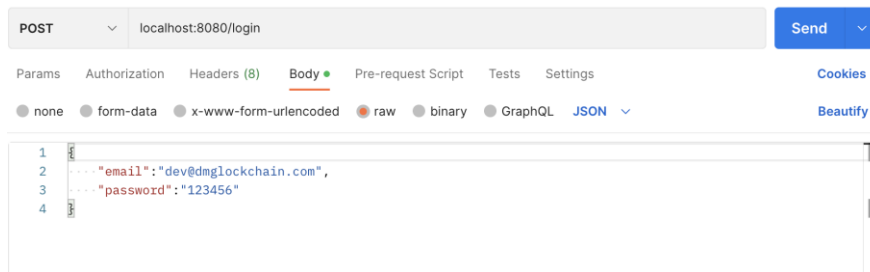
3. **For API testing**, mocha, chai and supertest libraries are used

- the API includes a couple of methods which executes to sign an email using jsonwebtoken library and verify an authentication token



A screenshot of a web browser window. The address bar shows 'localhost:8080/todo'. Below the address bar, there are several icons for various services like Google, YTS YIFY Movies, and Spotify. The main content area of the browser displays a JSON object: `{ "message": "Authorization token is invalid" }`.

- While testing for /login endpoint in Postman, there is no specific Bearer token set for authentication as there are some limitations in the backend application for generating Auth. It depicts an error of secret or private key having a value as undefined



- Other three endpoints, GET /todo, POST /todo and DELETE /todo are having a limitation of auth. However, it includes an endpoint “https://jsonplaceholder.typicode.com/” on which the above-mentioned HTTP methods are analyzed and tested.