



Software Testing Project

API-Manual-Automation



THE
THINKING
TESTER

*Automation
Exercise*



Origin of the idea

The idea for those platforms emerged from a need to provide QA engineers with a dedicated space for honing their automation testing skills, and API testing skills. Recognizing the gap in accessible, hands-on practice environments for both beginners and advanced testers, the platform was conceptualized to cater to everyone, regardless of experience level. The vision was to create a tool that would help professionals continuously improve, refresh their knowledge, and stay current with evolving testing methodologies. This project is built to be a universal resource, supporting skill growth through real-world scenarios and challenges.





Project vision and mission

To build a robust and efficient testing framework that ensures the highest quality of software products by integrating API, manual, and automation testing practices. We strive to create a seamless, reliable, and scalable testing process that enhances product performance, user experience, and overall market success.

Throughout our website testing journey, we successfully implemented all test cases based on their criticality and best practices. This approach allowed us to apply DEPI objectives effectively, ensuring the highest learning objectives were achieved.

01.

The goal is to implement API testing to thoroughly test the backend, ensuring that my products function optimally in both best and worst-case scenarios. This will be achieved by utilizing Postman for API testing, allowing for comprehensive validation of product performance, reliability, and resilience under various conditions.

02.

The goal of manual testing is to thoroughly evaluate the user interface and functionality, ensuring a smooth and intuitive user experience. By identifying usability issues and edge cases, we ensure the product meets quality standards from the user's perspective before release.

03.

The goal of automation testing is to streamline the testing process by executing repetitive tasks efficiently, ensuring consistent product quality. This approach allows for faster detection of defects, improves test coverage, and enhances product performance across various scenarios, leading to quicker releases and reliable results.

Team Members

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Project process

01



Understanding Requirements

As testers, our team leader has decided to organize and manage meetings, along with structuring the testing process, to address most of the requirements. The goal is to gain valuable experience and create a project that aligns with our skills and can be added to our portfolio.

02



API Testing

We also needed to start API testing, so we selected the Contact List App, which allows us to apply all HTTP methods and cover all possible test cases.

03



Manual Testing

After completing API testing, we began creating manual test cases for the Automation Exercise website to identify bugs and, if found, document them in a bug report.

04



Automation Testing

After creating manual test cases, we selected a few to convert into automated test cases to avoid repeating the same tests daily and save time.



Understanding Requirements

To build a robust and efficient testing framework that ensures the highest quality of software products by integrating API, manual, and automation testing practices. We strive to create a seamless, reliable, and scalable testing process that enhances product performance, user experience, and overall market success we scheduled regular meetings to follow up progress and organize tasks and following SMART objectives, recorded all points on meeting minutes document.



API Testing

Base URL:

<https://thinking-tester-contact-list.herokuapp.com/>

Purpose:

The Contact List App API enables users to manage contacts by creating, reading, updating, and deleting entries. This API is designed primarily for testing and learning purposes.

Key Features:

❑ User Authentication:

Users can register and log in to manage their contact lists securely.

❑ Contact Management:

All HTTP Methods (GET, POST, PUT, PATCH, and DELETE) operations are supported for managing contacts.

❑ Data Persistence:

Data is stored temporarily, with the database subject to periodic purging to control costs.



Manual Testing

Testing Objectives:

- ☐ Validate the functionality of all website features using excel to type test cases, and bug reports.
- ☐ Ensure all links, forms, and navigation work as expected.
- ☐ Verify consistent user experience across different devices and browsers.

Key Areas to Test:

☐ Homepage:

- Check loading time, layout, and visibility of key elements.

☐ User Registration and Login:

- Test registration with valid and invalid data.
- Verify login with correct and incorrect credentials.

☐ Product Browsing:

- Ensure categories (Men, Women, Kids) display the correct products.
- Test sorting and filtering options.

☐ Shopping Cart:

- Validate adding/removing products from the cart.
- Check cart summary and pricing accuracy.

☐ Contact Us:

- Test form submission with valid and invalid inputs.
- Verify response messages.

☐ Responsive Design:

- Check site functionality across mobile, tablet, and desktop devices.



Automation Testing

Testing Objectives:

- ❑ Automate repetitive testing tasks to enhance efficiency and test coverage.
- ❑ Ensure the website's functionalities work correctly across multiple scenarios.
- ❑ Support continuous integration and delivery by integrating automated tests into the development pipeline.

Tools and Frameworks:

❑ Selenium:

For web application testing to simulate user interactions.

❑ TestNG:

For structuring and executing test cases.

Key Areas to Test:

❑ User Registration:

Test new user registration and handling existing emails.

❑ User Login:

Validate login with correct and incorrect credentials.

❑ Contact Us Form:

Ensure form submission works with various input data.

❑ Test Cases Page:

Verify functionality of the test cases section.

❑ All Products and Product Details:

Confirm product listings and details are displayed correctly.

❑ Search Functionality:

Test product search accuracy.

❑ Homepage Subscription:

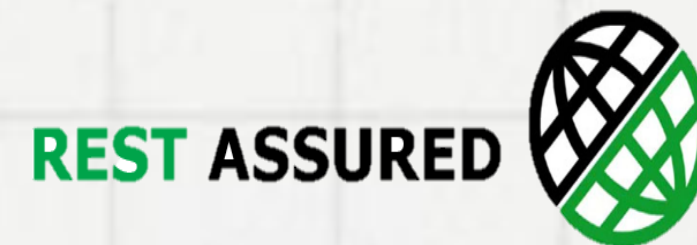
Validate the subscription feature on the homepage.





Final reflections and future steps

After completing our implementation based on the knowledge gained at DEPI, we are now planning to explore further by focusing on API automation testing, performance testing, and advancing our skills in Selenium. Additionally, some team members will be exploring other tools such as Cypress and expanding into other testing areas like mobile testing using Appium.



References

API Tested Website: <https://thinking-tester-contact-list.herokuapp.com/>

Manual, Automation Tested Website: <https://automationexercise.com/>

Project Files Link:

<https://drive.google.com/drive/folders/1gcCRlcP34sw0Cb2B0Nz1EI2N3Rthl9FU>



Thank you very much!