Confix-Hub final project

S/N	Project Title	Version
1	Owner	Confix-Hub
2	Project Name	Contact Web App

Business Requirements Document (BRD) for Contact List App Website Automation

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1. Project Overview

The purpose of this document is to outline the requirements and objectives for automating the testing of the Contact List App website. The automation will ensure that the core functionalities of the website are consistently working as expected across various browsers and platforms, improving the efficiency of testing and reducing manual effort.

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2. Business Objectives

- **Enhance Testing Efficiency**: Automate the key workflows and functionalities of the Contact List App website to reduce the time spent on manual testing.
- **Improve Test Accuracy**: Minimize human errors in testing through automation, ensuring a higher level of test coverage.
- **Cross-Browser Compatibility**: Validate the website's compatibility across different browsers and devices.
- **Early Detection of Bugs**: Implement automated regression testing to catch issues early in the development cycle.
- **Continuous Testing Integration**: Integrate automated tests with the CI/CD pipeline for faster feedback during deployments.

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3. Scope of Automation

In-Scope:

- **User Authentication**
    - Login and Logout functionality
    - Registration of new users
    - Add new contact functionality
    - Display correct statistics and contact summaries
- **Responsive Design**
    - Ensure the UI adapts correctly to different screen sizes (desktop, tablet, mobile)

Out-of-Scope:

- Backend API testing
- Performance and load testing
- Non-functional requirements such as security or usability testing outside basic validations

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4. Functional Requirements

1. **User Authentication Automation**
   - Validate login with correct and incorrect credentials.
   - Ensure user can add 10 Contact
   - Verify user logout clears session data.
2. **Cross-Browser Testing**
   - Test all workflows on major browsers (Chrome, Firefox, Edge, Safari).
   - Ensure consistency of the UI and functionality across devices (desktop).

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5. Non-Functional Requirements

- **Performance of Automation Suite**: The execution of automated tests should not exceed 30 minutes in CI/CD.
- **Maintainability**: The automation framework should be modular and support easy updates when website features change.
- **Reusability**: Test scripts should be reusable for similar scenarios across different modules of the website.

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6. Test Environments

Staging Environment	URL: https://thinking-tester-contact-list.herokuapp.com/
Browser	Chrome, Edge and fireFox
Laptop(System)	Mac, Window

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7. Automation Tool Selection

- **Selenium WebDriver**: For web automation across multiple browsers.

- **Python**: For scripting and test case development.
- **CI/CD Integration**: GitHub action for automated test execution during deployments.
- **Reporting**: HTML reports to track the results of test execution.

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8. Assumptions

- The website is stable, and functionality will not significantly change during automation development.
- Test data will be provided and accessible during the automation process.
- Developers will collaborate to provide API mocks or stubs if backend integration is delayed.

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9. Risks

- **Delays in Website Features**: If development of core website features is delayed, automation timelines may shift.
- **Third-Party Dependencies**: External services like email verification might cause flakiness in tests.
- **Browser Compatibility Issues**: Differences in browser rendering could cause unexpected UI behavior in automated tests.

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11. Timeline

- **Planning and Framework Setup**: 2 day
- **Automation Script Development**: 1 weeks
- **Test Execution and Refinement**: 2 days
- **CI/CD Integration and Reporting**: 2 days
- **Generate test summary Report:** 1 day

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12. Conclusion

Automating the Contact List App website will significantly enhance testing accuracy, efficiency, and reliability. With comprehensive coverage of key functionalities, the automation suite will help ensure a consistent user experience while reducing manual testing effort.

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