Jaqueline Zagaste

CIS233DA

June 7, 2023

Browser Testing Tools

Cross-browser testing is a type of non-functional testing that lets you check whether your website works as intended when accessed through different browser combinations, different devices, and assistive tools. Performing this task helps identify any issues or inconsistencies that may arise when users access the website using various browsers. This includes checking for compatibility issues related to HTML, CSS, JavaScript, and other web technologies. During the testing web developers and testers will look at different aspects of the layout consistency, visual appearance, responsive design, interactivity, functionality, performance, and compatibility with specific browser versions and platforms.

Cross-browser testing is important for several reasons, the first one being user experience, since users use different forms to view a web page performing this task ensures that the browser will have a smooth experience. Compatibility is also very important because this makes sure that the website works properly no matter what browser or device you are viewing it from. It will also help reach different regions and demographics, making it more popular and expanding the potential user base. It also helps with performance and speed since every browser has different rendering engines and performance characteristics. It will help identify any performance bottlenecks or slowdowns specific to certain browsers. Speed and responsiveness are everything these days and performing these tests will really help improve that over different browsers. Bug detection is also a really important issue this helps with, it is just an overall easier way to detect any inconsistencies.

From what I read it seems that the ones who should be conducting the cross-browser testing are Web Developers, Quality Assurance Team, Designers, and Project Managers. Web developers play an important role when it comes to testing to validate those adjustments. QA professionals are normally the ones that test websites using different tools and techniques, so it is important for them to be a part of the process as well. Designers are also important for this process to make sure that the visual elements, layout, and responsiveness are correct and look consistent across different browsers. Project managers can oversee the development process and make sure that the project meets its objectives, so it is important for them to understand the process.

Cross-browser testing is typically done using a combination of manual testing and automated testing techniques. First, we Establish a Baseline and run all design and functionality tests on your primary browser to understand the intended look and behavior of the website. Then we Create a Testing Plan by outlining the specific tests you'll conduct using a test specification document. Choose the browser-OS combinations to test based on popularity and site traffic analysis. After that you decide between automated and manual testing. Automated testing uses code to simulate user interactions and can be executed across multiple browsers, providing precise error reporting. Manual testing relies on human testers and is useful for exploratory testing and identifying UX issues. Automated testing is quicker and provides repeatable execution. Finally, Set up the testing infrastructure to account for different operating systems and devices. Options include using emulators/simulators/VMs, creating your own device lab, or utilizing a cloud-based testing infrastructure. Each option has its advantages in terms of cost, scalability, and reliability of test results.

There are several tools available for cross-browser testing. BrowserStack provides a cloud-based testing platform that allows you to test your website or web application on a wide range of browsers, operating systems, and mobile devices. It offers real browser instances for testing, including older versions, and supports both manual and automated testing. Similar is like BrowserStack, Sauce Labs is a cloud-based platform for cross-browser testing. It provides access to a large selection of browsers, platforms, and devices. It also supports both manual and automated testing and integrates with popular testing frameworks and CI/CD tools. CrossBrowserTesting offers a cloud-based testing platform that allows you to test your website on a variety of browsers and devices. It provides real browser instances, interactive testing, and supports automated testing using popular frameworks like Selenium. LambdaTest is another cloud-based platform that offers a wide range of browsers, operating systems, and mobile devices for cross-browser testing. It supports manual and automated testing and integrates with popular testing frameworks and CI/CD tools. Microsoft Edge Developer Tools is also an option if you specifically need to test your website on Microsoft Edge, the browser's built-in developer tools can be used. It provides features for inspecting elements, debugging, and testing website compatibility. There are also Browser developer tools since all major browsers come with built-in developer tools that allow you to inspect and debug web pages. They offer features for testing and troubleshooting issues specific to each browser.