

Business Problem Specification

Amazon, being a global e-commerce giant, faces the challenge of ensuring the reliability, scalability, and functionality of its software applications to provide a seamless and satisfying shopping experience for millions of customers worldwide.

The primary business problem is to guarantee a flawless and user-friendly experience for Amazon customers during the product search and order process. The identified challenges include potential defects in login validation, UI interactions, cross-browser compatibility, and integration with Git and Jenkins. The challenge is to ensure the robustness, reliability, and functionality of the Amazon website's product search and order functionalities through effective software automation testing.

The specific areas of concern include:

Login Validation:

Problem: Inaccurate validation of user login credentials could lead to unauthorized access or denial of access to legitimate users.

Impact: Security breaches, compromised user accounts, and potential loss of customer trust.

Search and Order Process:

Problem: Glitches in the product search and order process, including incorrect handling of user inputs or UI interactions, may result in a frustrating user experience.

Impact: Decreased customer satisfaction, abandoned carts, and negative reviews affecting brand perception.

Cross-Browser Compatibility:

Problem: Inconsistencies in the performance of product search and order functionalities across different web browsers may lead to user interface issues.

Impact: Reduced accessibility, potential loss of customers using specific browsers, and negative impact on the brand's reputation.

Integration with Git and Jenkins:

Problem: Issues in integrating the testing framework with version control (Git) and continuous integration (Jenkins) could result in operational inefficiencies.

Impact: Delays in the development and testing processes, hindering the agility of the software delivery pipeline.

Customer Dissatisfaction:

Problem: Cumulative defects in login validation, search, and order processes may contribute to an overall unsatisfactory user experience.

Impact: Decline in customer loyalty, potential loss of repeat business, and negative word-of-mouth affecting brand reputation.

Operational Inefficiencies:

Problem: Integration challenges with Git and Jenkins can lead to inefficiencies in managing and executing automated tests.

Impact: Increased development and testing cycle times, potentially impacting time-to-market for new features or updates.