

**1. Background:**

Healthcare platforms such as CURA are critical in the digital age, requiring dependable, secure, and high-performance solutions.

**2. Existing Practices:**

Robust testing practices, including both manual and automated testing, are critical for ensuring smooth user experiences and protecting platform reputation

**3. Automation Testing and Tools:**

Automation testing provides benefits such as faster testing processes and more efficient regression testing, with Katalon Studio being a popular option due to its user-friendly interface and flexible capabilities.

**4. Continuous Integration for Software Testing:**

Jenkins orchestrates automated builds, integrates with version control systems like as Git, and facilitates continuous testing, allowing for early defect discovery and efficient delivery pipelines.

**5. Cross-browser Testing Best Practices:**

Cross-browser testing is critical for guaranteeing compatibility across several devices and browsers, and tools like as TestCloud can help address the issues associated with varying browser environments.

**6. User authentication and security tests:**

Robust authentication techniques are critical for safeguarding user accounts and sensitive data, with an emphasis on discovering vulnerabilities and adopting mitigation strategies.

**7. Reporting and Analysis for Software Testing:**

Effective reporting mechanisms, such as automated email notifications via technologies like Katalon, ensure that stakeholders are promptly informed of test execution outcomes, allowing them to make educated decisions.

**8. Conclusion:**

The literature review lays the groundwork for optimizing software testing in the CURA project, emphasizing the necessity of using established methods, automation technologies, continuous integration, and tackling crucial issues such as cross-browser compatibility and user authentication security.