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INTEGRATING UAT AND REGRESSION TESTING FOR IMPROVED QUALITY ASSURANCE

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ABSTRACT

Integrating User Acceptance Testing (UAT) and Regression Testing is essential for enhancing the quality assurance (QA) process in software development. UAT focuses on validating the software's functionality from the end-user perspective, ensuring that it meets business requirements and user expectations. Conversely, Regression Testing is crucial for verifying that recent code changes do not adversely affect existing functionalities. This paper explores the synergy between UAT and Regression Testing, emphasizing their complementary roles in delivering high-quality software solutions.

By adopting an integrated approach, organizations can streamline their testing processes, reducing time and resource expenditure while improving overall software reliability. The integration facilitates early detection of issues during the development lifecycle, allowing for prompt resolutions and minimizing the risk of costly post-deployment defects. Furthermore, the paper discusses best practices for implementing this integration, including the establishment of clear communication channels between QA teams and stakeholders, the use of automation tools to support both testing types, and the development of comprehensive test cases that encompass both functional and non-functional requirements.

In conclusion, the collaboration between UAT and Regression Testing not only enhances the efficacy of the QA process but also aligns the development team with business objectives, ultimately leading to improved user satisfaction and a stronger competitive edge in the market. This integrated methodology represents a paradigm shift in quality assurance, underscoring the importance of holistic testing strategies in today's fast-paced software development environments.

KEYWORDS: *User Acceptance Testing, Regression Testing, Quality Assurance, Software Development, Integration, Testing Processes, Automation Tools, Functional Requirements, Non-Functional Requirements, User Satisfaction.*

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