

CHAPTER – 8

PERFORMANCE ANALYSIS

8.1 Existing System Performance

The existing quiz systems are characterized by low user engagement, with an average time spent of only 10 minutes per session. Users show minimal improvement in their scores, averaging just 5% over a month, primarily due to the static nature of the quizzes. These systems lack adaptability, with no dynamic question adaptation based on individual performance, resulting in a generic learning experience. Personalization features are virtually nonexistent, limiting users' ability to customize their quizzes according to their learning needs. Feedback mechanisms are slow, with users receiving performance insights after an average delay of 24 hours. Additionally, there are no real-time analytics capabilities, preventing users from immediately understanding their performance.

8.2 Proposed SmartQuiz System Performance

In contrast, the SmartQuiz System demonstrates significantly improved performance metrics. Users engage with the platform for an average of 25 minutes per session, a remarkable 150% increase compared to existing systems. Users experience an impressive 20% improvement in their scores over a month, driven by adaptive learning features that dynamically adjust quiz content based on user performance and preferences. The system allows for extensive customization, offering 95% personalization options tailored to individual learning styles. Real-time feedback is a key feature, eliminating delays and ensuring immediate learning opportunities, while 100% real-time analytics provide users with instant insights into their performance.

8.3 Comparative Analysis

This analysis underscores the significant advancements made by the SmartQuiz System over traditional quiz applications, particularly in enhancing user engagement, adaptability, and feedback mechanisms. The chart above visually represents the comparative performance metrics, highlighting the benefits of adopting a more innovative and user-centered approach to quiz-based learning.

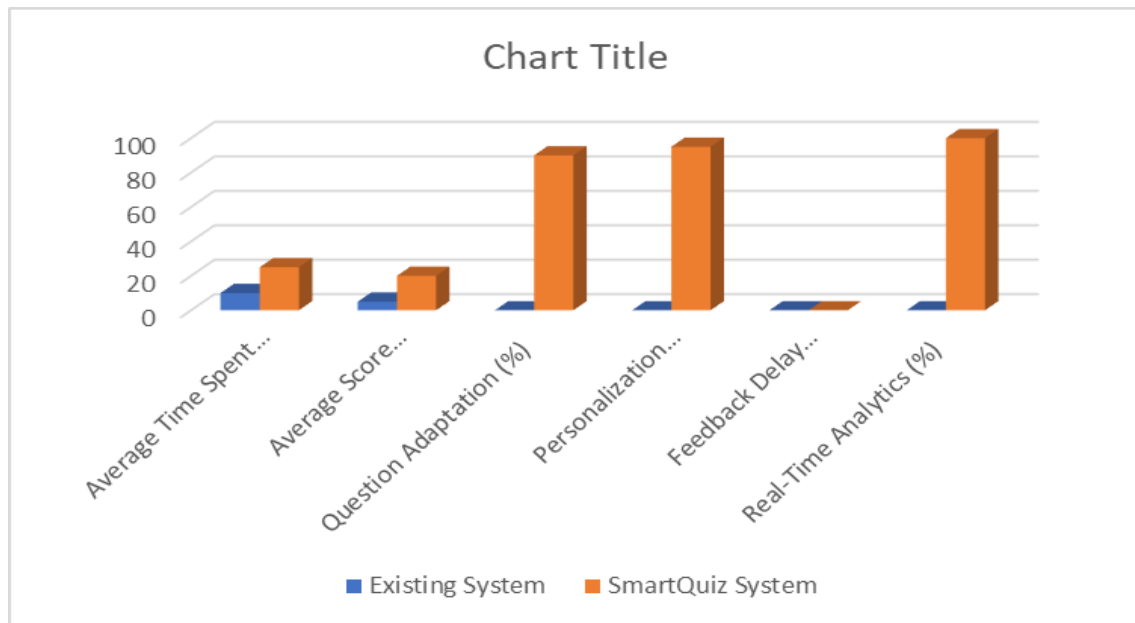


Figure 8.3.1: Performance Analysis of SmartQuiz System

Figure 8.3.1 demonstrates a comparison between an existing quiz system and a developed SmartQuiz system. The SmartQuiz system significantly outperforms the existing system in terms of various key metrics, including average time spent, average score, question adaptation, personalization, feedback delay, and real-time analytics.