

allows us to effectively address issues, optimize resource allocation, and sustain overall cluster efficiency.

7 CONCLUSIONS

This research paper explores the development of an automated API testing system with a focus on real-time monitoring and visualization. By integrating containerization tools like Docker and Kubernetes, the study establishes a cohesive testing framework for efficiency and scalability. Using Google Cloud Platform (GCP) further enhances the system's scalability and performance. Additionally, the integration of monitoring tools, particularly Elasticsearch, enables the assessment and visualization of the health and performance of the Kubernetes cluster underlying the testing environment.

By adopting a continuous and automated approach, the research successfully orchestrates these technologies to create a robust and efficient system for daily automation testing. The results highlight the collective impact of these integrated technologies in achieving reliable and effective automated testing processes, ultimately contributing to the advancement of software development.

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