Enhancing Data Security in Google Cloud Platform: A Comprehensive Analysis

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Abstract*: For almost a decade, the cloud computing concept has completely changed the computing industry. When compared to traditional benefits, cloud computing offers many advantages such as lower costs, quicker speeds, less setup time, pay per use, resilient service, round-the-clock availability, service availability on the go, and many more. Notwithstanding all these benefits, cloud computing is not without its problems and difficulties. the shared data or information in a cloud-based virtual environment. Since virtual computers, which offer a virtual environment, are the foundation of the cloud concept. Data security is not always at the same level. Instead, it varies depending on the kind of data and occasionally the owner's request. As a result, a basis for classifying data that will be shared on the cloud must be determined to implement an appropriate encryption technique dynamically and provide the best possible data encryption at the lowest possible cost.*

Keywords: data security, cloud, encryption, key management, security.