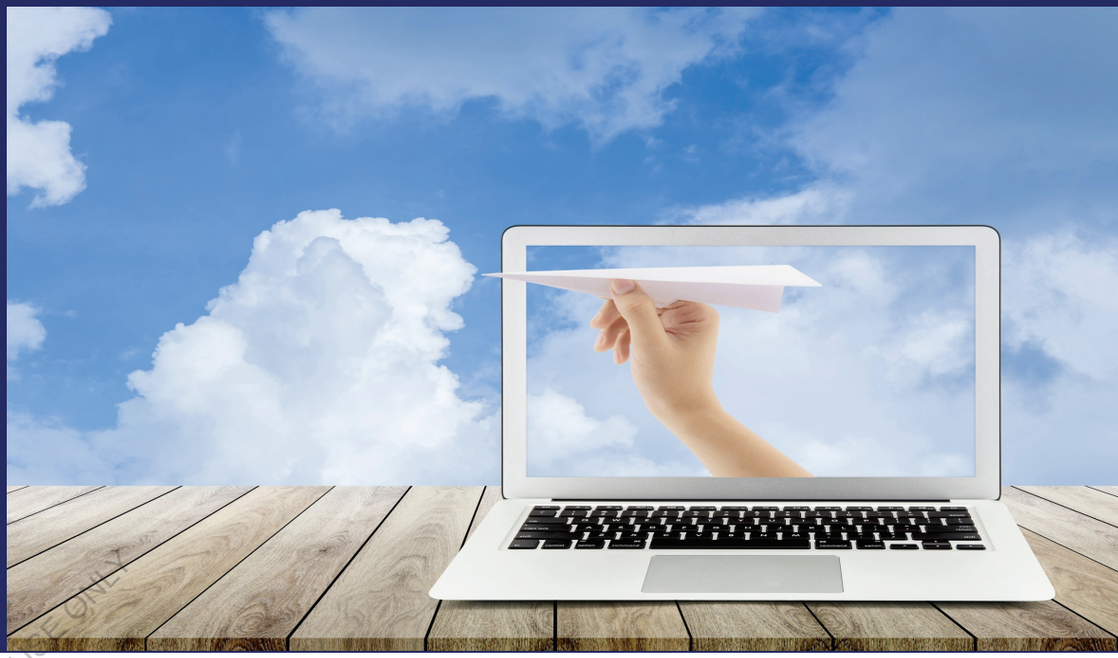
This book delves into the fundamental concepts and advanced practices of cloud technology, offering readers a clear understanding of its evolution, infrastructure, and deployment models. Starting with the basics, the book explains the core principles of cloud computing, including service models like IaaS, PaaS, and SaaS, and various deployment models such as public, private, and hybrid clouds. It explores the vital role of virtualization in the cloud ecosystem and provides insights into cloud infrastructure components like data centers, servers, storage, and networks. Security is a major focus, addressing challenges and solutions related to data protection, identity management, and compliance. The book also compares leading cloud service providers—Amazon Web Services, Microsoft Azure, and Google Cloud Platform—highlighting their unique offerings and pricing structures. For developers, the book covers cloud application architecture, development tools, and the significance of DevOps practices. It also includes a thorough examination of cloud storage options, databases, and networking, emphasizing performance management and monitoring strategies.



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