Summary In this chapter, we have examined business requirements, cloud definitions, cloud computing roles and responsibilities, and foundational concepts of cloud computing. This chapter has provided an introductory foundation for these topics. We will explore each of them in more detail as we move ahead. **Exam Essentials Explain the different roles in cloud computing.** Cloud service providers offer cloud computing services for sale. Cloud service customers purchase these services and use them to meet their business objectives. Cloud service partners assist cloud service customers in implementing the services they purchase from providers. Cloud access service brokers offer an intermediary layer of security for cloud users. Regulators define requirements for operating in the cloud with sensitive data. **Identify the key characteristics of cloud computing.** The key characteristics of cloud computing are on- demand self- service, broad network access, multitenancy, rapid elasticity and scalability, resource pooling, and measured service. **Explain the three cloud service categories.** The three cloud service categories are software as a service (SaaS), infrastructure as a service (IaaS), and platform as a service (PaaS). In a SaaS offering, the provider runs a complete application in the cloud that is sold to customers. In IaaS offerings, the provider sells technology building blocks to customers, who assemble their own solutions. In PaaS offerings, the provider sells an environment where customers may run their own code. **Describe the five cloud deployment models.** Public cloud deployments use multitenancy to provide services to many customers on shared hardware. Private cloud environments use hardware that is dedicated to a single customer. Hybrid cloud environments make use of both public and private cloud services. Community clouds are dedicated to a group of customers with a shared characteristic. Some organizations choose to combine cloud services from several providers in a multi- cloud deployment. **Identify important related technologies.** Cloud computing benefits from and serves several related technologies. These include data science, machine learning, artificial intelligence, blockchain, the Internet of Things, containers, quantum computing, edge computing, fog computing, confidential computing, and DevSecOps. **Explain the shared considerations in the cloud.** As organizations decide whether to use cloud services, they must analyze several important considerations. These include interoperability, portability, reversibility, availability, security, privacy, resiliency, performance, governance, maintenance and versioning, service levels and service- level agreements, auditability, regulatory concerns, and the impact of outsourcing.