**DESIGN PHASE PART 2**
**Cloud Deployment**

Cloud deployment plays a pivotal role in the creation of a table reservation website for hotels, offering scalability, reliability, and cost-effectiveness. This discussion will delve into the cloud deployment strategy for such a website, focusing on four key subtopics:

1. Cloud Service Selection:
   - The first crucial step in cloud deployment is selecting an appropriate cloud service provider. Popular options include Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), and others. Each provider offers a suite of services to host, store, and manage web applications.
   - For this project, AWS is a preferred choice due to its wide range of services and strong reputation in the industry. AWS offers services such as Elastic Compute Cloud (EC2) for virtual servers, Relational Database Service (RDS) for managed databases, and CloudFront for content delivery.

2. Scalability and Elasticity:
   - Table reservation websites experience fluctuating demand, with peak usage during weekends or holidays. Cloud deployment allows for automatic scalability, ensuring that the website can handle varying levels of traffic. Elasticity ensures that resources can be automatically added or removed based on demand.
   - AWS Auto Scaling is a valuable feature that can be employed to automatically adjust server capacity in response to changing traffic patterns. Canva's design elements, incorporated into the web application, remain consistent as the website scales, providing a seamless user experience.

3. Data Storage and Management:
   - Effective data storage and management are fundamental for a table reservation website. Cloud databases offer secure, efficient, and highly available solutions for storing user profiles, hotel details, reservations, and reviews.
   - AWS provides managed database services like Amazon RDS, which supports various database engines, including MySQL, PostgreSQL, and SQL Server. These services ensure data integrity and reliability. Canva designs can guide the creation of visually appealing data displays and forms that interact with the cloud-based databases.

4. Content Delivery and Load Balancing:
   - Content delivery and load balancing are essential components of a responsive and efficient website. Cloud services like AWS CloudFront and Elastic Load Balancing (ELB) play a critical role in distributing traffic and delivering content quickly to users.
   - AWS CloudFront serves as a content delivery network (CDN) that replicates website content across multiple server locations, reducing latency and improving load times. Elastic Load Balancing distributes incoming application traffic across multiple targets, enhancing availability and fault tolerance. Canva's design elements, embedded in website templates, can be distributed to multiple server locations to ensure consistent and visually appealing content delivery to users around the world.

In conclusion, cloud deployment is a vital aspect of creating a table reservation website in Canva for hotels. The choice of cloud service provider, such as AWS, scalability, data storage, and content delivery all contribute to the success of the website. Canva's design capabilities can be seamlessly integrated into the cloud-based web application, ensuring that the website is visually appealing and provides a consistent user experience. Together, cloud deployment and Canva's design tools form a

powerful combination for building a highly efficient and user-friendly table reservation website for hotels.