DESIGN PHASE PART 2
Technical Architecture for Creating a Table Reservation Website in Canva

Creating a table reservation website for hotels requires a well-structured technical architecture to ensure smooth operation, security, and scalability. This architecture can be divided into four key components:

1. Presentation Layer:
   - The presentation layer is responsible for rendering the user interface and providing an interactive experience.
   - Canva, a design tool, is used to create visually appealing web pages, including the homepage, search results, hotel profiles, and reservation forms.
   - The front-end is built using HTML, CSS, and JavaScript to ensure responsiveness and interactivity.
   - This layer communicates with the application layer for data retrieval and submission.

2. Application Layer:
   - The application layer contains the core logic and functionality of the website.
   - It uses programming languages like Python, Ruby, or Node.js for server-side processing.
   - Canva's designs for reservation forms and user interfaces guide the development of user interactions.
   - This layer manages user authentication, reservation processing, search functionality, and communication with the database layer.

3. Database Layer:
   - The database layer stores and manages all data required for the website's operation.

- Database management systems like MySQL, PostgreSQL, or MongoDB are used to store customer information, hotel details, reservation records, and, if applicable, user reviews and ratings.
- Canva can influence the design of the database schema by visualizing data entities and relationships.
- It communicates with the application layer to retrieve and update data.

4. Integration and Security Layer:
- The integration and security layer ensures the website connects with external services and APIs while maintaining data security.
- Payment gateways, geolocation services, and social media integration are part of this layer.
- Security components, including encryption protocols, authentication mechanisms, and access control, protect user data and website integrity.
- Canva may provide visual cues for security and privacy policies.

In conclusion, this technical architecture outlines the core components necessary for building a table reservation website for hotels. Canva's design capabilities influence the visual aspects of the presentation layer, while various technologies and layers ensure the website's efficient and secure operation. This architecture is designed to provide a seamless reservation experience for users and offers robust management tools for hotel staff, ultimately enhancing customer satisfaction and operational efficiency in the hotel reservation process.