NaplesLogic

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Project Title

NaplesLogic: Restaurant Management Tool

Project Significance

NaplesLogic is a restaurant management tool with real-world applications for understanding the complexity of what makes restaurants tick. Businesses all have similar needs and learning how to organize them correctly can potentially lead to business running smoothly. NaplesLogic is significant because it exists in a difficult industry, where budgets are tight and the number of people coming in and out of stores are numerous. NaplesLogic provides the leeway most restaurants need by structuring order information, staffing the restaurant and making sure that there is not an under or overstock on food supplies. This can save chefs and managers from the headache of constantly observing patterns during their busy shifts. The owner doesn't have to worry about spending too much. Now the one who gets the most benefit from NaplesLogic is the customer. They will go to a restaurant that has enough food, fully staffed, and without an extremely long wait time. Additionally, business owners can use the software to identify patterns and generate direct reports from the data.

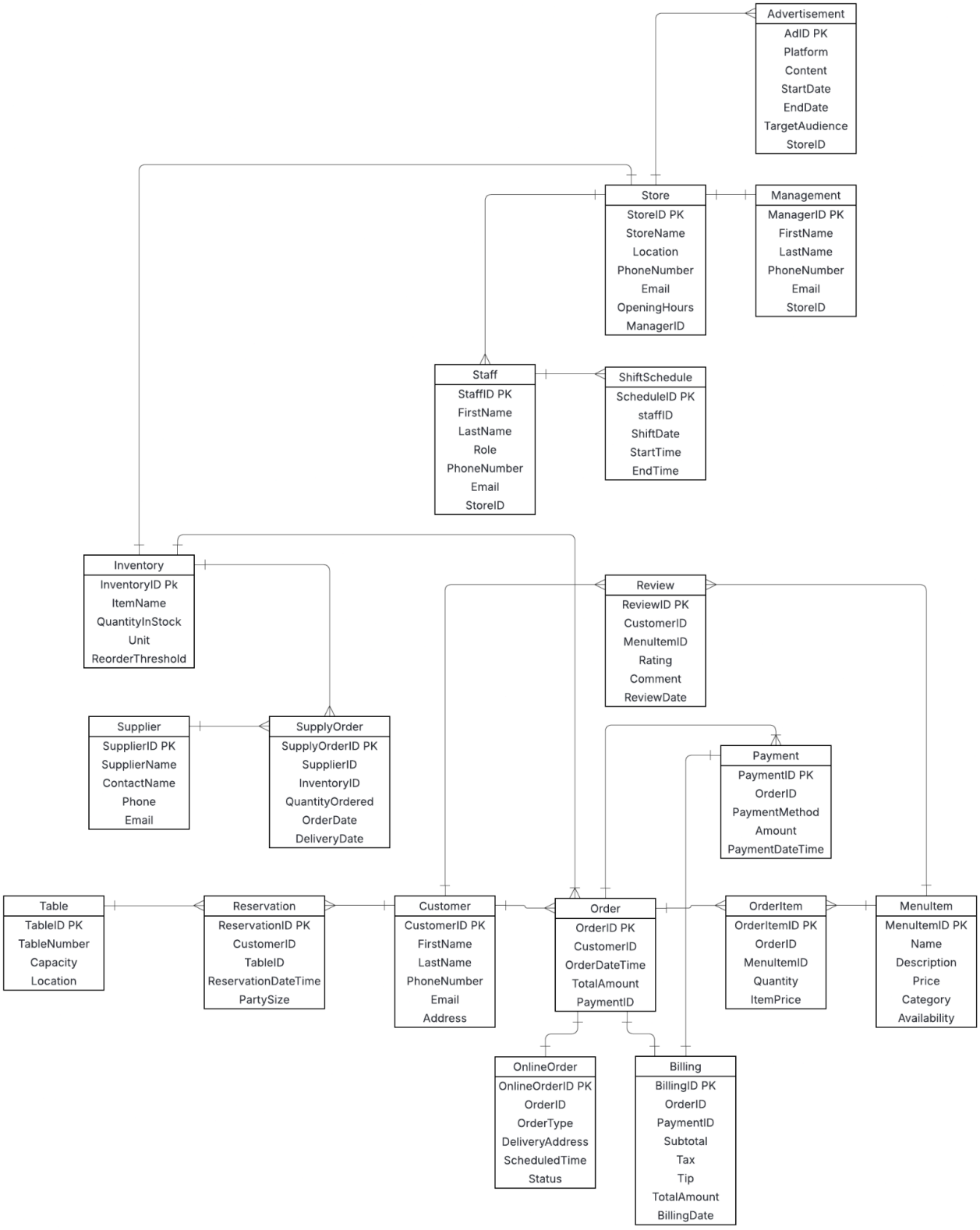
Relevant Business Requirements

Here are some applicable business requirements NaplesLogic may cover:

1. Customer Management
    a. Collects and stores customer information: name (first and last name), contact info (phone number and email), address and reservations.
    b. Maintain a customer's history of visits and online orders.
2. Menu and Order Management
    a. Manage the restaurant's menu (items, descriptions, categories, prices, and availability).
    b. Allow online order placement, with tracking details per customer.
3. Reservation System
    a. Enable customers the ability to book tables online or at the venue.
    b. Display real-time table id, table size and location.
4. Pricing and Billing
    a. Support flexible pricing.
    b. Generate and process bills, while accepting multiple payment methods (cash, card, paypal, etc.).

5. Staff and Shift Scheduling
    a. Profiles and roles of the store staff.
    b. Plan and manage work schedules for kitchen and floor staff.
6. Inventory and Supply Management
    a. Keep track of ingredients and stock levels.
    b. Automate the supply orders based on inventory.
    c. Track supplies deliveries and update inventory in real-time.
7. Reports and Analytics
    a. Generate detailed reports on sales and inventory usage.
    b. Provide managers with performance dashboards to demonstrate financial planning.

Tentative Conceptual Diagram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Expected Timelines

Week 1: Finalize Project Scope & Database Planning

- Finalize the majority of the project scope and important features (reservations, menu, inventory, billing, etc.).
- Assign tasks to team members.
- Create an initial ER diagram to visualize how everything connects.
- Expand the ER diagram into a complete conceptual model.
- Design the relational schema, identifying all necessary tables and relationships.

Week 2: Build the Database

- Set up the database using a relational DBMS (such as: MySQL).
- Create core tables: customers, menu items, orders, staff, and inventory.
- Normalize the data to avoid redundancy and ensure consistency.
- Define all relationships using primary and foreign keys.
- Begin writing key transactional queries (such as: placing orders, billing logic).

Week 3: Add Features & Functionality

- Building system functionalities (such as: table tracking, staff scheduling, inventory management, online ordering.)
- Implement automated billing processes.
  Develop basic user interfaces or input forms for data entry.
- Start tying together different components of the system.
- Begin early testing of major functions to detect any issues early.

Week 4: Test, Polish & Wrap Up

- Conduct thorough testing (such as: edge cases and concurrent users).
  Validate data integrity and ACID compliance across transactions.
- Debug and fine-tune queries and processes for better performance.
- Finalize any reporting and analytics features.
- Compile the final project report and prepare the presentation.

Group Contributions

Each team member played an important role in shaping and enhancing the project documentation. Meaghan prepared the Project Title and Detailed Business Requirements. Meaghan, Kaden, and Nat worked together to develop the Expected Timelines section. Nat and Kaden composed the Project Description along with the Project Significance. Nat was

responsible for designing the Tentative Conceptual Diagram. Throughout the process, all members collaborated to review and finalize the entire project proposal.