RESTURANT STORE FRONT MANGAMENT APP

CSE 2

Database project

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RESTO

An online storefront for a restaurant with management, delivery and booking systems.

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Scope Of Work

- Login / Registration.
- Search Function.
- User Private Information Encryption.
- Customer interface page.
- Delivery Man interface page.
- Admin interface page.
- Admin Overview over orders, bookings and delivery men .
- Menu / Products Management.
- Full Delivery System with confirmation.
- Ordering system with billing.
- Booking Seat System.
- Hardware: Receive order with an ESP8266 device powered by NFC.

Business Rules

1. User Registration and Authentication:

- ❖ Users must register and create an account using a valid email address and password.
- ❖ Users should be able to securely log in using their registered credentials.

2. User Interface:

- ❖ Users can browse the menu, view item details, and add items to their cart.
- ❖ Users can view their order history, reorder previous orders, and track their current orders.
- ❖ Users can make table reservations by customizing the booking, choosing the date, hour, and table number in the restaurant.

3. Admin Interface:

- ❖ Admins have access to a dashboard to manage the restaurant's menu, adding, editing, and removing items.
- ❖ Admins can update item availability and descriptions.
- ❖ Admins can view an overview of bookings, orders, and delivery status.

4. Delivery Interface:

- ❖ Delivery personnel can view and accept delivery orders one at a time.
- ❖ Delivery personnel can update the status of orders ("picked up", " at location" or "delivered ").
- ❖ Delivery personnel can view delivery details: address, contact info, and special user instructions.

5. Order Placement and Processing:

- ❖ Users can place orders by adding items to their cart, specifying quantities, and providing delivery or pickup details.
- ❖ Orders should be assigned to available delivery personnel based on their proximity to the delivery address.

6. Payment Processing:

- ❖ Users can securely make online payments using various methods: mainly PayPal.
- ❖ Payment information should be encrypted and processed through a trusted gateway.

7. Discounts and Promotions:

- ❖ Users should be able to apply valid coupon codes during checkout to avail discounts or promotions.

8. Privacy and Data Security:

- ❖ The app must comply with privacy laws, ensuring user data protection and confidentiality.
- ❖ User passwords and sensitive info should be securely stored and encrypted.
- ❖ App security measures should prevent unauthorized access, data breaches, or malicious activities.

9. Platform Compatibility and Performance:

- ❖ The app should be compatible with various devices, operating systems, and screen sizes.
- ❖ It should be responsive, ensuring smooth performance across different network conditions and user loads.

Requirements

1. User Interface:

- ❖ User Registration and Login: Users should be able to create an account and log in to the app.
- ❖ Browse and Search: Users should be able to browse through a list of food items, view their menus, and search for specific dishes or cuisines.
- ❖ Place Orders: Users should be able to select items from the menu, add them to the cart, and place orders.
- ❖ Payment Integration: The app should support secure payment options, such as PayPal.
- ❖ Order Tracking: Users should be able to track the status of their orders, including order preparation, and delivery status.

2. Delivery Interface:

- ❖ Delivery Personnel Registration and Login: Delivery personnel should be able to register as delivery partners and log in to the app.
- ❖ Order Acceptance: Delivery personnel can see new orders and have the option to accept them based on their availability.
- ❖ Order Status Update: Delivery personnel should be able to update the status of their assigned orders, such as order pickup, in route, or delivered.

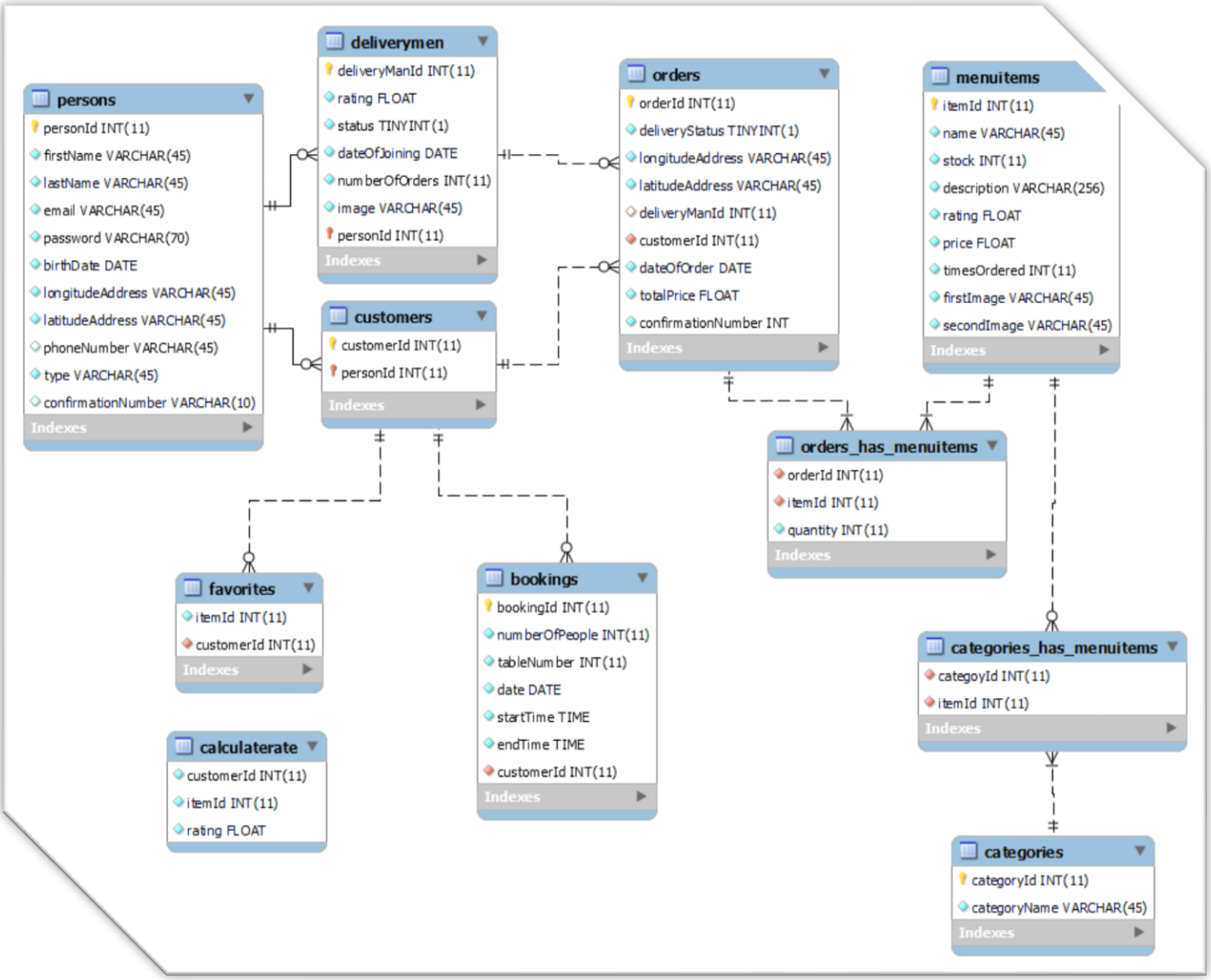
3. Admin Interface:

- ❖ Admin Dashboard: The admin should have access to a centralized dashboard to manage the entire system.
- ❖ Menu Management: The admin should have the ability to manage menus, including adding, updating, and removing dishes.
- ❖ Order Management: The admin should be able to view and manage all incoming orders, track order status

General Requirements

- Cross-Platform Compatibility: The app should be available on multiple platforms, such as a Website, Android, IOS and Windows, to reach a wider user base.
- Intuitive User Experience: The interfaces should be user-friendly and provide a seamless experience for users, delivery personnel, and administrators.
- Security and Privacy: The app should implement robust security measures to protect user data, including encryption, secure authentication, and compliance with data protection regulations.
- Scalability: The app should be designed to handle a large number of users, restaurants, and orders, ensuring smooth performance even during peak times.
- Integration with Third-Party Services: The app should integrate with external services for features such as payment processing, map navigation, and customer support.
- Customization and Branding: The app should allow restaurants to customize their profiles and branding to maintain their unique identity within the app.

EER Diagram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Indexes

Project Toolbox

Applications:

- ❖ Android Studio
- ❖ Visual Studio Code
- ❖ MySQL Workbench
- ❖ XAMPP

Languages & Frameworks:

Frontend:

- ❖ Flutter
- ❖ Dart

Backend:

- ❖ JavaScript
- ❖ Node JS
- ❖ Express JS

Database:

- ❖ MySQL