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Our group has decided to do the Food Delivery system which would be able to be used by a restaurant for their day to day use. It will include their Menu, a place where they can create orders, deliveries, customer profiles, make payments, and have information about the restaurant.

Here is how we are planning on dividing the responsibilities:

Lauren (New group leader):

Customer

Description: This class will store a customer's information.

- This will store a customer's name, age, email, and home address
- This will store any food allergies the customer has (peanuts, tree nuts, eggs, shellfish, etc.)

Communication

Description: This will display messages between the delivery driver and customer.

- This class's constructor will take a Customer and a DeliveryDriver as parameters
- This class will allow drivers or customers to communicate once before the delivery is complete
- This class will display messages from the delivery drivers until they end communication
- The customer will be able to respond to the driver's message until they end communication

Delivery Driver

Description: This will store a delivery driver's information.

- This will store a driver's name, age, and email as parameters
- This class will assign a random employee ID

- This will store the driver's rating. If this driver has no rating, it will display a message saying the driver has no rating.
- This will store whether or not a driver's been reported as dangerous

Delivery Vehicle

Description: This class will store information about the delivery driver's vehicle.

- This class will store a vehicle's license plate, state where the vehicle's registered, model, color, and its owner.
- A vehicle's ID will match the delivery driver's employee ID

Order

Description: This will handle all order information placed by customers.

- This class will get a customer's name, delivery address, and contact information for the order
- Users can enter special delivery instructions and change their delivery address if it's not the same as the address on their account
- This class will display the selected menu items, quantities, and special instructions
- This will display subtotal, taxes, delivery fee, and final total
- This class will apply a discount (%5) if the customer is over 65 (senior discount)
- Each order will have a status (Placed, In Progress, Out for Delivery, Completed, or Canceled)
- This class will record the time and date placed
- A confirmation will be generated once the order is successfully placed

Rating

Description: This class will allow customers to rate the delivery drivers.

- This will take an integer from 1-5

- This class will give the users a choice to rate the driver
- Users will be able to input a rating (1-5)
- Users can report if the driver is dangerous (ex. The driver brought a weapon, threatened the customer, or tried to break into the customer's house)

Customer Account Changes

Description: This class will allow a customer to update their information or delete their account.

- This will allow the user to change their name, email, home address, and age
- This class will allow a user to delete their account. This action will remove all of their information.

Driver Account Changes

Description: This class will allow drivers to update their information or delete their account.

- This class will allow drivers to change their name and email
- This will allow the driver to update their vehicle information in the system
- This class will allow a user to delete their account. This action will remove all of their information, including vehicle information.

Evan:

Payment

Description: This class stores payment records and processes transactions for customer orders

- Payment ID, order ID, total amount, tax amount, delivery fee, payment status (pending, completed, failed), and payment date
- Process the payment transaction and update the payment status
- Calculate the total amount including tax and delivery fees
- Prompt for payment confirmation with "Process payment (Y/N)"
- Generate a detailed receipt showing order total and payment details

- Retrieve payment records for cancelled orders

Payment Method

Description: This class stores and manages different payment options for customers

- Method ID, customer ID, payment method type (Credit Card, Debit Card, or Cash), card number, expiration date, and default status
- Allow customers to select their preferred payment method
- Add, update, or remove saved payment methods
- Validate card number and expiration date

Transaction

Description: This class tracks and maintains detailed logs of all payment transactions and their status history

- Transaction ID, payment ID, timestamp, transaction status, and audit log trail
- Generate unique transaction IDs for each payment attempt
- Record transaction audit trails for security and accountability
- Retrieve transaction history and details for specific orders
- Display transaction logs and payment confirmations to customers and managers
- Link transactions to specific orders and payment methods

Restaurant

Description: This class stores basic restaurant information and operational details

- Restaurant ID, name, address, phone number, opening time, closing time, and base delivery fee
- Add, update, or remove restaurant information
- Display the restaurant's operating hours (opening and closing time)
- Calculate and set the delivery fee amount based on the range/zone of delivery
- Provide restaurant information including contact details and hours

Support Staff

Description: This class manages customer service and technical support staff information and tracks customer support issues

Support staff ID, name, issue type, ticket status, availability, response time, customer satisfaction rating, customer ID, and order ID

- Add, update, or remove support staff members
- Assist customers with order issues, payment problems, and delivery inquiries
- Assign support issues to staff based on issue type and availability
- View and update issue status (open, in-progress, resolved, closed)
- Track response times and customer satisfaction ratings
- Resolve customer issues and disputes directly
- Store customer and order information related to each support case

Menu

Description: This class represents individual food or drink items with detailed information.

- Item ID, name, description, price, category, ingredients, allergen information, and preparation time
- Store and maintain item details (name, description, price)
- Assign and update item categories (appetizer, entrée, dessert, beverage)
- Maintain ingredient information and allergen details for each dish
- Track preparation time for each menu item
- Provide detailed item information including ingredients and price
- Add, update, or remove individual menu items

Menu Item

Description: This class represents individual food or drink items with detailed information

- Item ID, name, description, price, category, ingredients, allergen information, preparation time, and availability status
- Store and maintain item details (name, description, price)
- Assign and update item categories (appetizer, entrée, dessert, beverage)
- Maintain ingredient information and allergen details for each dish
- Track preparation time for each menu item
- Provide detailed item information including ingredients and price

- Add, update, or remove individual menu items