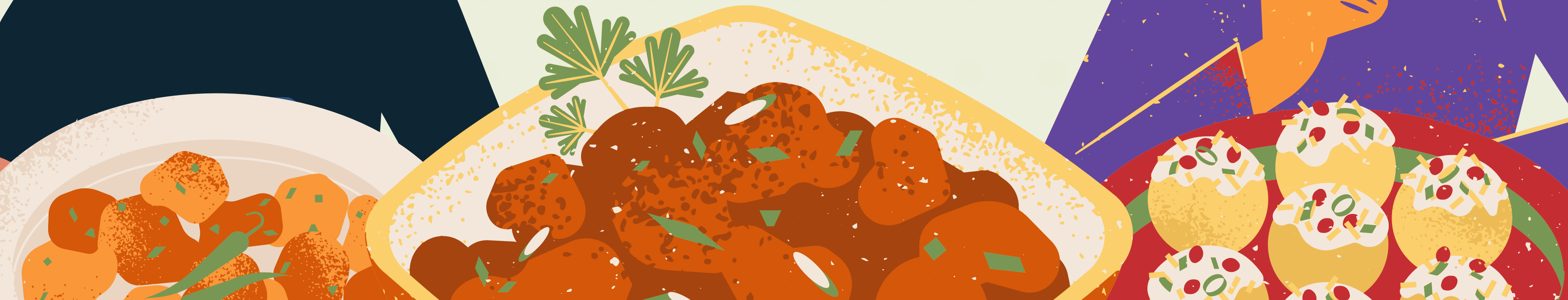MICRO PROJECT

RESTAURANT MANAGEMENT

GROUP MEMBER: OU VENHAV

PHON SOVATANAK
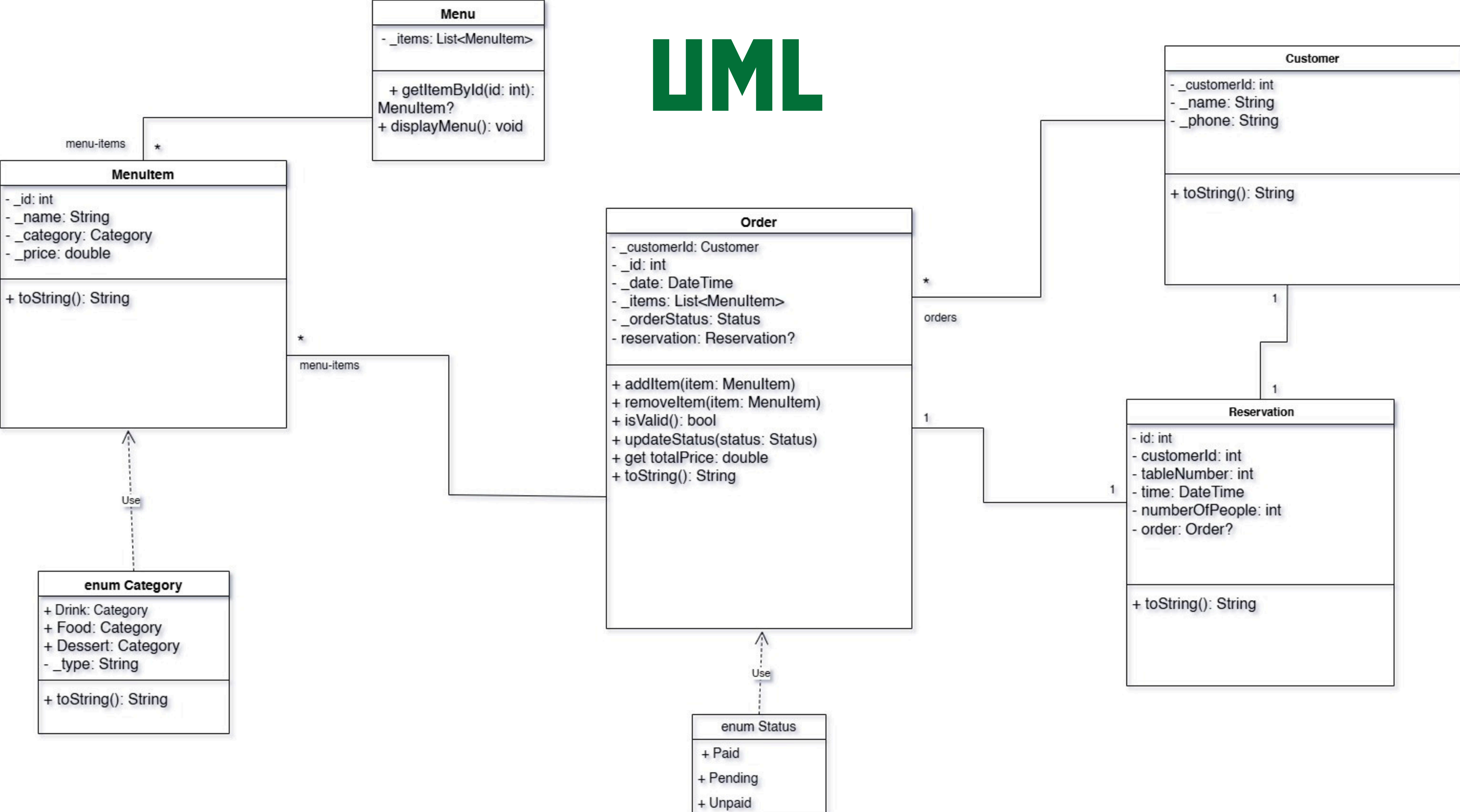
ABOUT

We created a simple Restaurant Management System That allows users:

- to record customer details
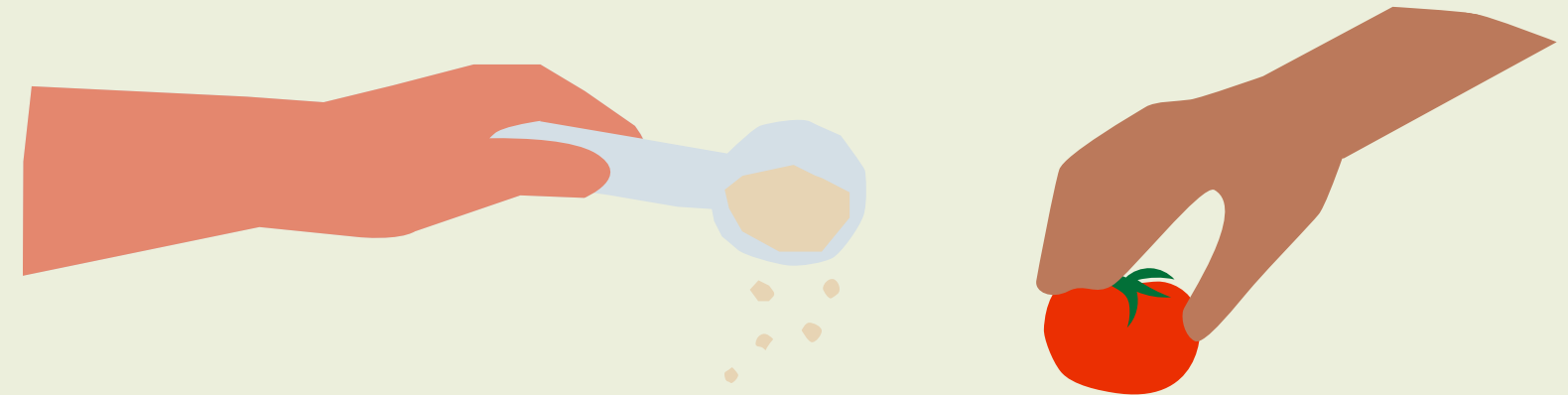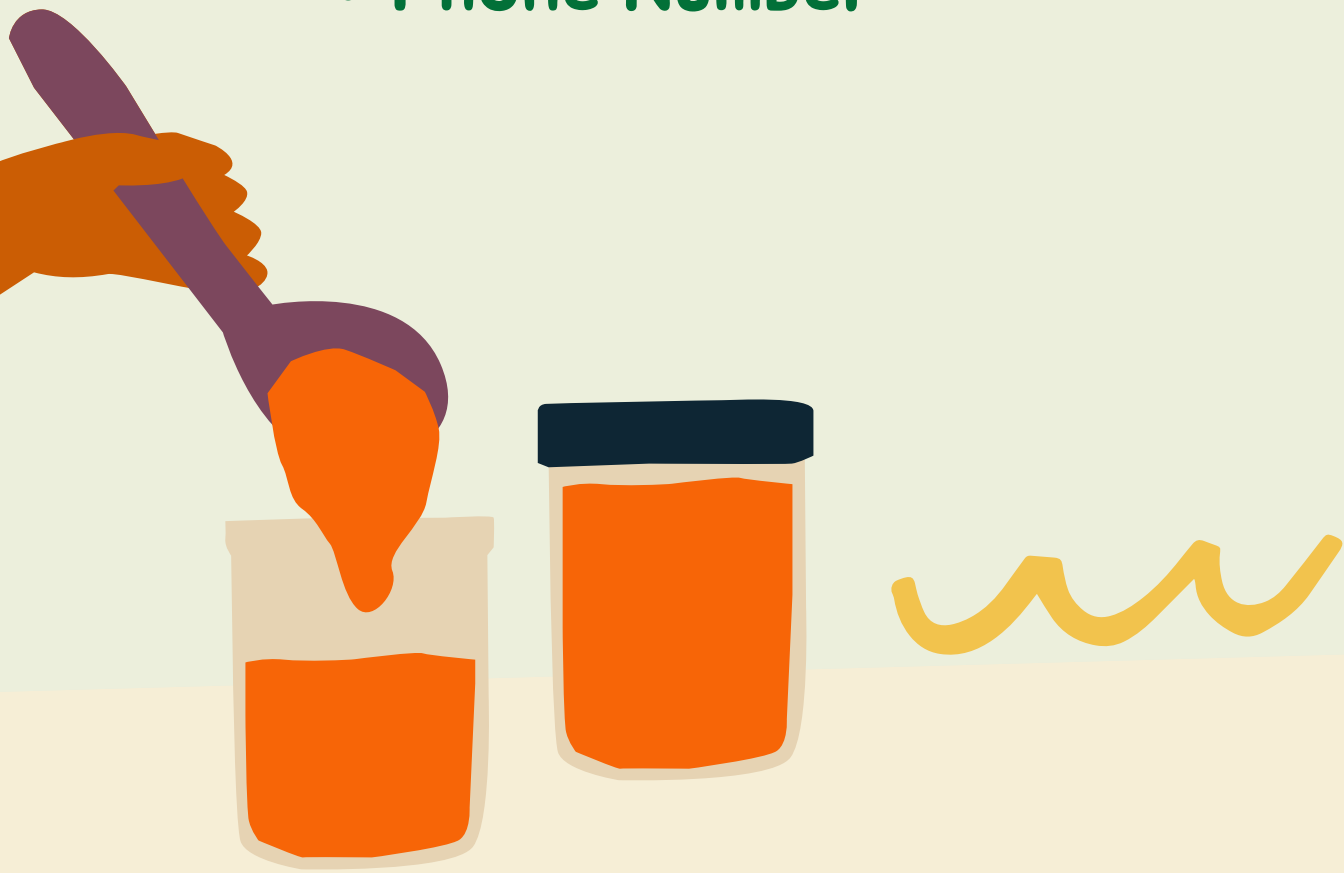- make reservations
- place orders.

Menu

- _items: List<MenuItem>

+ getItemById(id: int): MenuItem?
+ displayMenu(): void

UML

Customer

- _customerId: int
- _name: String
- _phone: String

+ toString(): String

menu-items *

MenuItem

- _id: int
- _name: String
- _category: Category
- _price: double

+ toString(): String

Order

- _customerId: Customer
- _id: int
- _date: DateTime
- _items: List<MenuItem>
- _orderStatus: Status
- reservation: Reservation?

+ addItem(item: MenuItem)
+ removeItem(item: MenuItem)
+ isValid(): bool
+ updateStatus(status: Status)
+ get totalPrice: double
+ toString(): String

* orders

menu-items *

Reservation

- id: int
- customerId: int
- tableNumber: int
- time: DateTime
- numberOfPeople: int
- order: Order?

+ toString(): String

Use

enum Category

+ Drink: Category
+ Food: Category
+ Dessert: Category
- _type: String

+ toString(): String

Use

enum Status

+ Paid
+ Pending
+ Unpaid

Customer

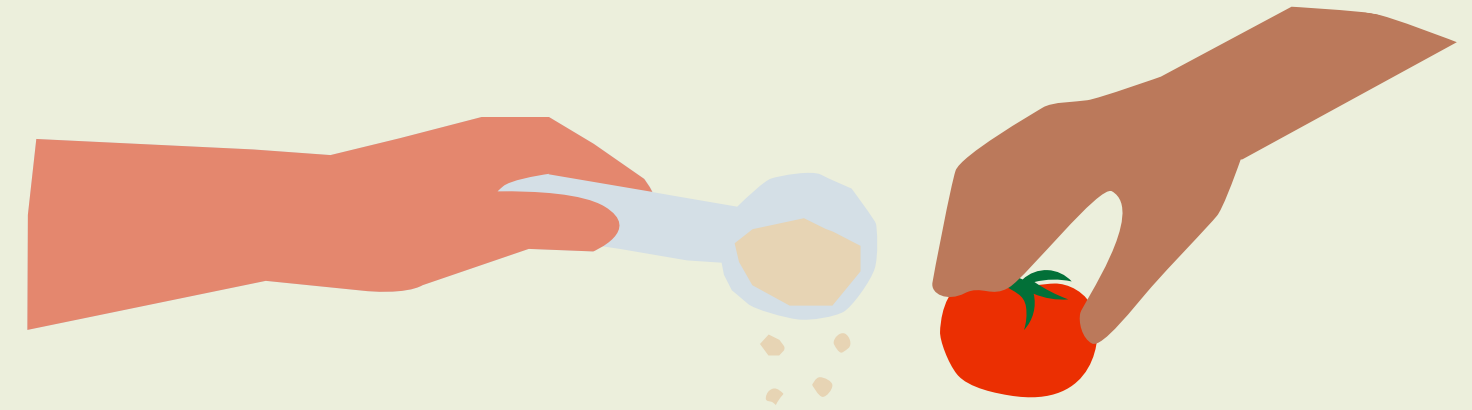**Customer Detail Include:**

- ID
- Name
- Phone Number

```
===== Customer Input =====
Enter customer ID:
123
Enter customer name:
OUVENHAV
Enter customer phone:
012249500
Customer added successfully.
```

Reservation

Reservation Detail Include:

- **Reservation ID**
- **Customer ID**
- **Table Number**
- **Amount of People**

```
===== Reservation Input =====
Enter reservation ID:
1
Enter customer ID:
1
Enter table number:
2
Enter number of people:
3
Reservation made successfully.
```

Order

Order input:
- **Reservation ID**
- **Items**
- **Payment**

```
Enter reservation ID:
1
Menu

Item ID: 1, Name: Burger, Category: Food, Price: $5.0

Item ID: 2, Name: Coca, Category: Drink, Price: $0.75

Item ID: 3, Name: Pizza, Category: Food, Price: $15.0

Item ID: 4, Name: Ice-Cream, Category: Dessert, Price: $1.0

Item ID: 5, Name: Fried Rice, Category: Food, Price: $2.0

Item ID: 6, Name: Noodle, Category: Food, Price: $2.0

Item ID: 7, Name: Cookie, Category: Dessert, Price: $0.25
Enter the ID of the item you want to order (or 'done' to finish):
1
Burger added to your order.
Enter the ID of the item you want to order (or 'done' to finish):
2
Coca added to your order.
Enter the ID of the item you want to order (or 'done' to finish):
done
Do you want to Pay?(yes/no):
yes

Order placed successfully.
```

Order (Cont.)

Order/Receipt Detail Include:

- **Customer Detail**
- **Reservation Detail**
- **Order Detail**

```
===== Customer =====
Customer ID: 1
Customer Name: 1
Contact: 1
===== Reservation =====
Rerservation ID: 1
Customer ID: 1
Table Number: 2
Time: 2024-10-31 22:40:40.709093
People: 3
===== Order =====
Order ID: 1
Customer ID: 1
Date: 2024-10-31 22:42:59.901421
===== Ordered Menu =====
Item ID: 1, Name: Burger, Category: Food, Price: $5.0
==================
Item ID: 2, Name: Coca, Category: Drink, Price: $0.75
===== Total =====
Price: $5.75
===== Status =====
Paid
```

```dart
void addCustomer(List<Customer> customers) {

  int customerId = getInputAsInt("Enter customer ID:");
  if (isCustomerExists(customers, customerId)) {
    print("Customer ID already exist!. Choose a unique one.");
    return;
  }
  String name = getInputAsString("Enter customer name:");
  String phone = getInputAsString("Enter customer phone:");
  customers.add(Customer(customerId, name, phone));
  print("Customer added successfully.");
}


// Add Reservation Function
void addReservation(List<Customer> customers, List<Reservation> reservations) {
  print("===== Reservation Input =====");
  int reservationId = getInputAsInt("Enter reservation ID:");
  if (!isReservationUnique(reservations, reservationId)) {
    print("Reservation ID already exist! Choose a Unique one.");
    return;
  }

  int customerId = getInputAsInt("Enter customer ID:");
  if (!isCustomerExists(customers, customerId)) {
    print("Customer don't exist! Choose an existing one");
    return;
  }
  int tableNumber = getInputAsInt("Enter table number:");
  int numberOfPeople = getInputAsInt("Enter number of people:");
  reservations.add(Reservation(
      reservationId, customerId, tableNumber, DateTime.now(), numberOfPeople)); // Reservation
  print("Reservation made successfully.");
}
```

```
PS C:\code files\micro project\micro_project> dart "c:\code files\micro project\micro_project\micro_project\main.dart"
===== Restaurant Management System =====
1. Input Customer
2. Input Reservation
3. Customer Place Order
4. Exit
Choose your choice.
1
===== Customer Input =====
Enter customer ID:
12
Enter customer name:
```

THANK YOU