



Online Restaurant Ordering System API - User Manual

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Overview

The Online Restaurant Ordering System API is designed to simplify the process of managing restaurant operations. This API serves as a bridge between customers, restaurant staff, and the underlying database, allowing for efficient handling of essential tasks. The API enables seamless interaction with customer data, menu items, orders, reviews, and pantry inventory, making it easier to manage day-to-day activities in a restaurant environment.

Key Features Include:

Customer Management: Easily create, update, and delete customer information.

Menu Management: Add and manage various menus and menu items dynamically.

Order Processing: Place, update, and manage customer orders in real time.

Review System: Collect and manage customer feedback to enhance service quality.

Inventory Management: Maintain pantry stock and payment information efficiently.

This API makes it easy for users to handle restaurant operations efficiently.

Setup Instructions

Prerequisites

- **Python 3.9+** installed on your machine.
- **FastAPI** framework and necessary libraries.
- **PostgreSQL** or a similar SQL database.

Installation Steps

1. Clone the Repository:

```
git clone https://github.com/MasonScarbrow/GroupProject-ITSC-3155.git
```

2. Install Dependencies:

Requirements: fastapi, uvicorn, sqlalchemy, pymysql, pytest, pytest-mock, httpx, and cryptography

Necessary packages:

```
pip install fastapi
pip install "uvicorn[standard]"
pip install sqlalchemy
pip install pymysql
pip install pytest
pip install pytest-mock
pip install httpx
pip install cryptography
```

3. Set Up the Database:

Configure your database settings in config.py or .env file.

4. Run the API Server:

```
uvicorn main:app --reload
```

5. Access the API Documentation:

Navigate to <http://127.0.0.1:8000/docs> for the interactive Swagger UI.

Usage Examples

Creating a Customer:

- **Endpoint:** POST /customers/
- **Request Example:**

The screenshot shows a Swagger UI interface for a POST endpoint. The top bar indicates the method is POST and the endpoint is /customer/ with a 'Create' label. Below this, there is a 'Parameters' section which is currently empty, showing 'No parameters'. To the right of the parameters section are 'Cancel' and 'Reset' buttons. The 'Request body' section is marked as 'required' and has a dropdown menu set to 'application/json'. The request body is a JSON object with the following fields: 'name' (Marry Jane), 'email' (Jmarry@example.com), 'phone_number' (123-456-2345), 'address' (456 Main St, City), and 'payment_info_id' (2).

```
POST /customer/ Create
Parameters
No parameters
Request body required application/json
{
  "name": "Marry Jane",
  "email": "Jmarry@example.com",
  "phone_number": "123-456-2345",
  "address": "456 Main St, City",
  "payment_info_id": 2
}
```

- **Response Example:**



The screenshot shows a REST client interface with the following sections:

- Responses**: A header section.
- Curl**: A text area containing the following curl command:

```
curl -X 'POST' \
  'http://127.0.0.1:8000/customer/' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "name": "Marry Jane",
    "email": "Jmarry@example.com",
    "phone_number": "123-456-2345",
    "address": "456 Main St, City",
    "payment_info_id": 2
  }'
```
- Request URL**: A text area containing the URL `http://127.0.0.1:8000/customer/`.
- Server response**: A section with a table containing two columns: **Code** and **Details**.

Fetching All Menu Items

- **Endpoint: GET /menu-items/**
- **Response Example:**

```
[
  {
    "id": 1,
    "dish": "Cheeseburger",
    "calories": 550,
    "price": 7.99,
    "menu_id": 1
  },
  {
    "id": 2,
    "dish": "Veggie Pizza",
    "calories": 450,
    "price": 9.99,
    "menu_id": 2
  }
]
```

Deleting an Order

- **Endpoint:** DELETE /orders/{order_id}
- **Request:**
 - DELETE /orders/1
- **Response:**

```
{ "detail": "Order deleted successfully" }
```

Error Handling:

404 Not Found: When a resource does not exist.

400 Bad Request: Invalid input or database error.