
Curry Inc.

**CurryMuncha's
Software Requirements Specification For
Online Restaurant System**

Version <1.0>



CurryMunchas Co.	Version: <1.0>
Software Requirements Specification	Date: 23/10/2025
First Draft	

Revision History

Date	Version	Description	Author
23/10/2025	1.0	First draft of CurryMuncha's	Syed Ferdows John Ortega Aaliyan Qureshi Minhazur Rahman Shaeem Rockcliffe

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Software Requirements Specification

1. Introduction

1.1 Purpose

This document is made to clarify the specifications of the following AI-Enabled Restaurant Order and Delivery System. In this document you the systems functionality user interactions and AI integrations, and the projects overall structure.

1.2 Scope

The system will allow users to Browse Restaurant Menus, Place and Pay for Online Orders, And use AI to recommend dishes based on preferences, the main users are customers and restaurant staff.

1.3 Definitions, Acronyms, and Abbreviations

OLLM: Ollama large language model

Firestore: Database offered by Firebase, that will be used to store key information and will serve as the overall backend service

1.4 References

Firebase Documentation: <https://firebase.google.com/docs>

React.js Documentation: <https://react.dev/>

Express.js Documentation: <https://expressjs.com/>

Ollama Documentation: <https://ollama.ai/>

“New food delivery study shows what consumers crave in a service”, US Foods, 2019

<https://www.usfoods.com/our-services/business-trends/2019-food-delivery-statistics.html>

1.5 Overview

Rest of what SRS contains:

Overall Description: Provides a high-level view of the product's functionality, users, and constraints.

Specific Requirements: Describes user interfaces, hardware interfaces, and software interfaces, languages, frameworks, databases, and LLM's that will be used for this project.

Supporting Information: Includes the indexes and the appendices.

2. Overall Description

The following information in the document will be system functionality, requirements, and needed information for design and implementation.

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2.1 Use-Case Model Survey

Our project is centered around 3 types of actors. They include the employees, customers and visitors. The employees category can then further be broken down into managers, chefs and delivery people. Each use-case will describe how each of these groups of people will interact with the system to produce their specialized goals.

List of current actors:

1. Manager
2. Chef
3. Delivery Dude
4. Customer with an Account
5. VIP Customer
6. Visitor
7. AI Chatbot

Current List of Use Cases

1. Browsing menu- view the menu, including prices and pictures
2. Placing order- select the order, confirm payment, and send out for delivery
3. Delivering order- accept orders and send them to customers
4. Change Menu- add, remove or update dishes to reflect user rating
5. Register or Login- Register new accounts or log in to existing ones.
6. Manage Account- Approve new users, handle complaints, adjust salaries
7. Reviews- Monitor performance metrics such as ratings, warnings
8. Handle Complaints- Review and decide on complaints, issue warnings
9. AI Chatbot interactions - Ask questions about the restaurant or food; chatbot responds using local knowledge or LLM assistance

Text Version of UML:

1. Manager- manage accounts, handle complaints, reviews
2. Chef- change menu, reviews
3. Delivery Dude- reviews, delivering order
4. Customer with an Account- AI chatbot interactions, browse menu, place order, register or login
5. VIP Customer- AI chatbot interactions, browse menu, place order, register or login
6. Visitor- AI chatbot interactions, browse menu, register or login

2.2 Assumptions and Dependencies

Assumptions:

1. The restaurant has at least two chefs, two delivery people, and one manager to operate the system effectively.
2. The LLM model (such as one hosted on Hugging Face or Ollama) is freely available and operational for integration.
3. Customers have valid digital payment methods to deposit funds before ordering.
4. The local knowledge base will contain accurate and up-to-date restaurant information for AI-assisted responses.

Dependencies:

1. The success of the system depends on the availability and reliability of the open-source LLM used for customer support.
2. Database and storage systems (e.g., SQLite, MySQL) must function correctly to persist user data, menus, orders, and chat logs.

3. The GUI framework (e.g., Python Tkinter, web frontend, or desktop app toolkit) must support image rendering and interactive components.
4. System operation may depend on third-party APIs for optional creative features (e.g., maps for delivery routing, voice processing APIs).

3. Specific Requirement

The AI-Enabled Restaurant Order and Delivery System will allow users to browse menus, place and pay for orders, and receive personalized meal recommendations generated by an integrated language model. The system will support multiple user roles, customers, restaurant staff, and managers, each with distinct levels of access and functionality. Customers can interact with an AI chatbot for menu assistance and order tracking, while staff members can manage menu updates, process orders, and monitor customer feedback. The AI model (OLLM) will enhance user interaction by generating natural language responses and adaptive suggestions based on customer preferences and previous activity.

3.1 Use-Case Reports

Use Case: Browsing Menu

- Actor(s): Customer, VIP Customer, Visitor
- Description: Users can view the restaurant's menu, including dish names, prices, images, and descriptions.
- Preconditions: User is on the menu page or has navigated to the menu.
- Postconditions: Menu is displayed correctly with accurate information.
- Functional Requirements: FR1 – Display menu items with images and prices; FR2 – Allow filtering by categories (e.g., appetizers, main course).

Use Case: Placing Order

- Actor(s): Customer, VIP Customer
- Description: Users select items from the menu, confirm payment, and submit orders for delivery or pickup.
- Preconditions: User has an account or is logged in, and has a valid payment method.
- Postconditions: Order is recorded in the system and sent to the restaurant for processing.
- Functional Requirements: FR3 – Add items to cart; FR4 – Process online payment securely; FR5 – Send order to kitchen and delivery queue.

Use Case: Delivering Order

- Actor(s): Delivery Dude
- Description: Delivery staff view assigned orders and confirm delivery to customers.
- Preconditions: Orders exist in the delivery queue.
- Postconditions: System updates order status to “delivered” and logs delivery time.
- Functional Requirements: FR6 – Display delivery assignments; FR7 – Update order status.

Use Case: Change Menu

- Actor(s): Chef
- Description: Chefs can add, remove, or update menu items based on ratings and inventory.
- Preconditions: Chef is logged in and authorized.
- Postconditions: Menu changes are reflected in the customer-facing system.
- Functional Requirements: FR8 – Add/remove/update menu items; FR9 – Adjust availability based on inventory.

Use Case: Register or Login

- Actor(s): Customer, VIP Customer, Visitor
- Description: Users create accounts or log in to access personalized features and place orders.

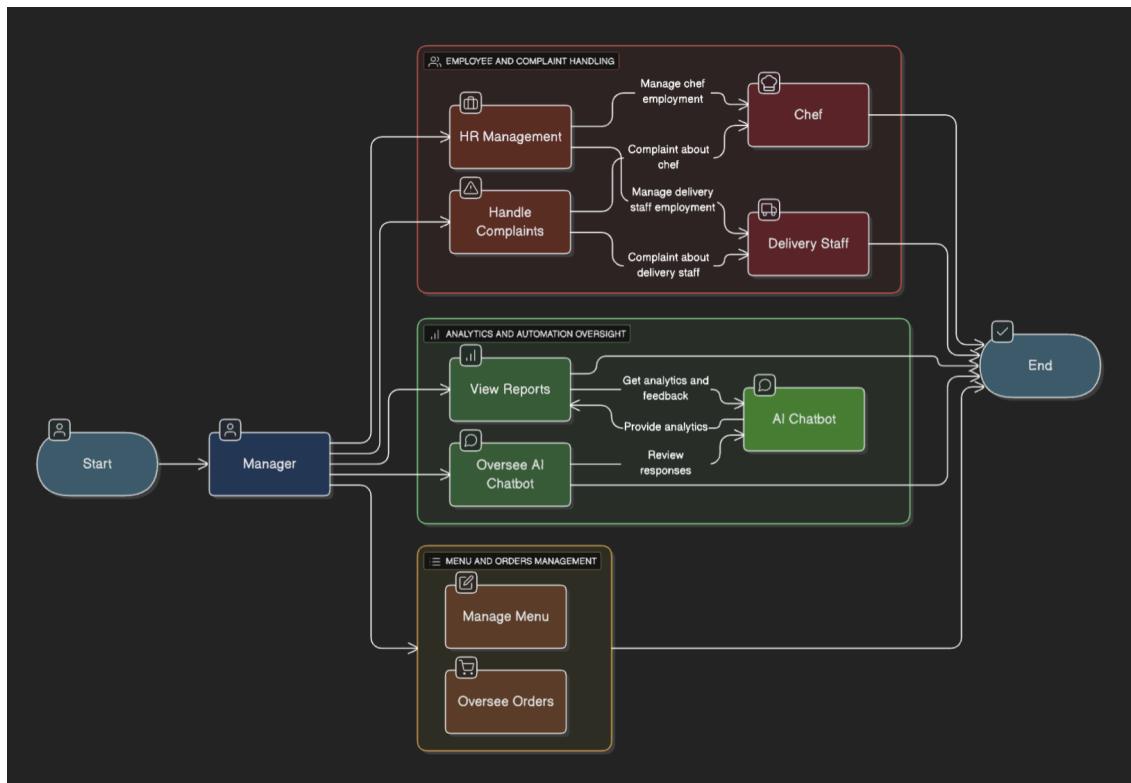
- Preconditions: None (registration) or valid account exists (login).
- Postconditions: User is authenticated and redirected to the dashboard or menu.
- Functional Requirements: FR10 – Account creation and login; FR11 – Validation of credentials.

Use Case: AI Chatbot Interactions

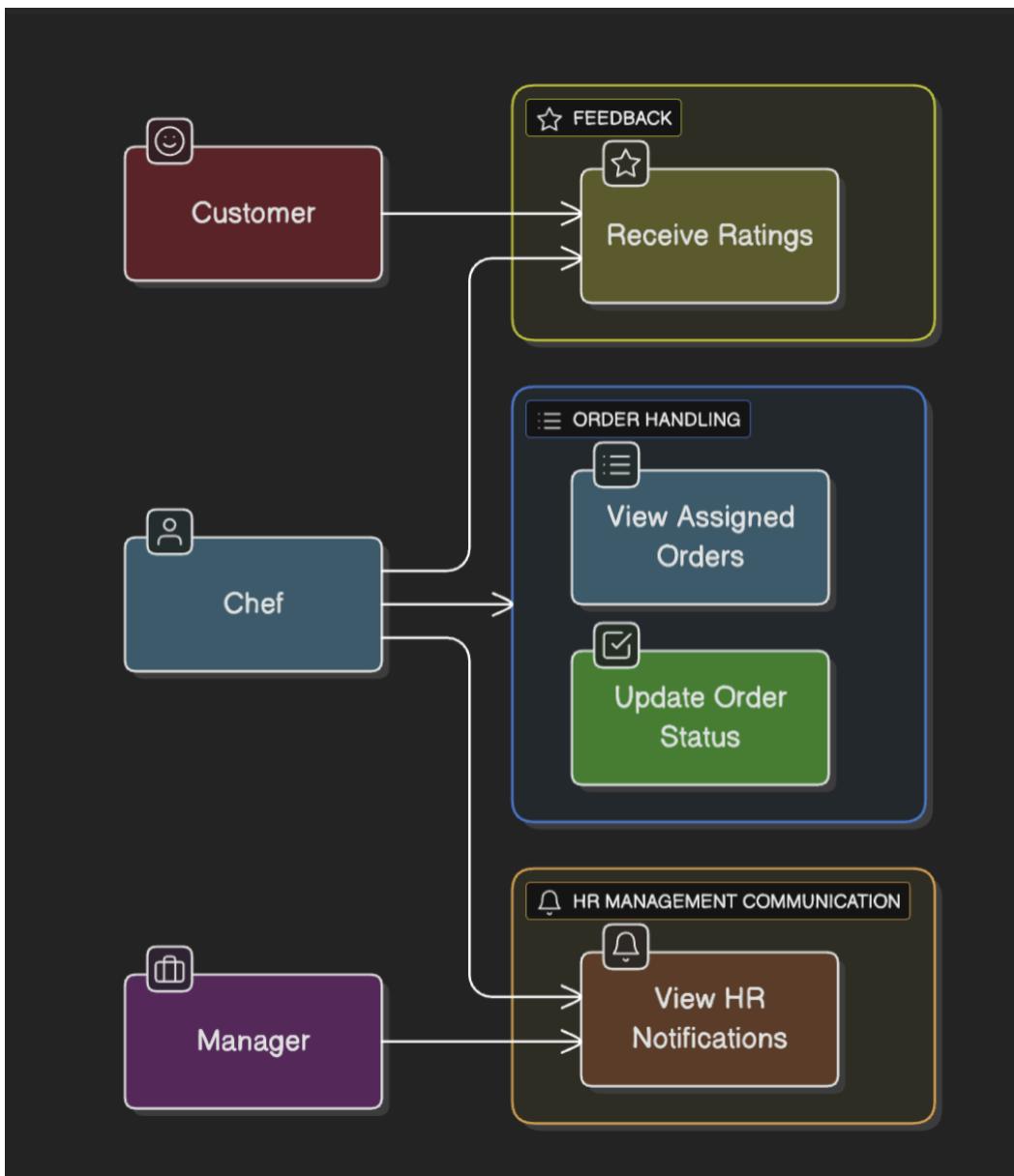
- Actor(s): Customer, VIP Customer, Visitor
- Description: Users ask questions about the restaurant, menu items, or recommendations. The AI responds using either a local knowledge base or LLM.
- Preconditions: User is logged in or has access to chatbot interface.
- Postconditions: User receives relevant responses and recommendations.
- Functional Requirements: FR12 – Process user queries; FR13 – Generate menu or dish suggestions; FR14 – Provide answers from local database or LLM.

3.2 Supplementary Requirements

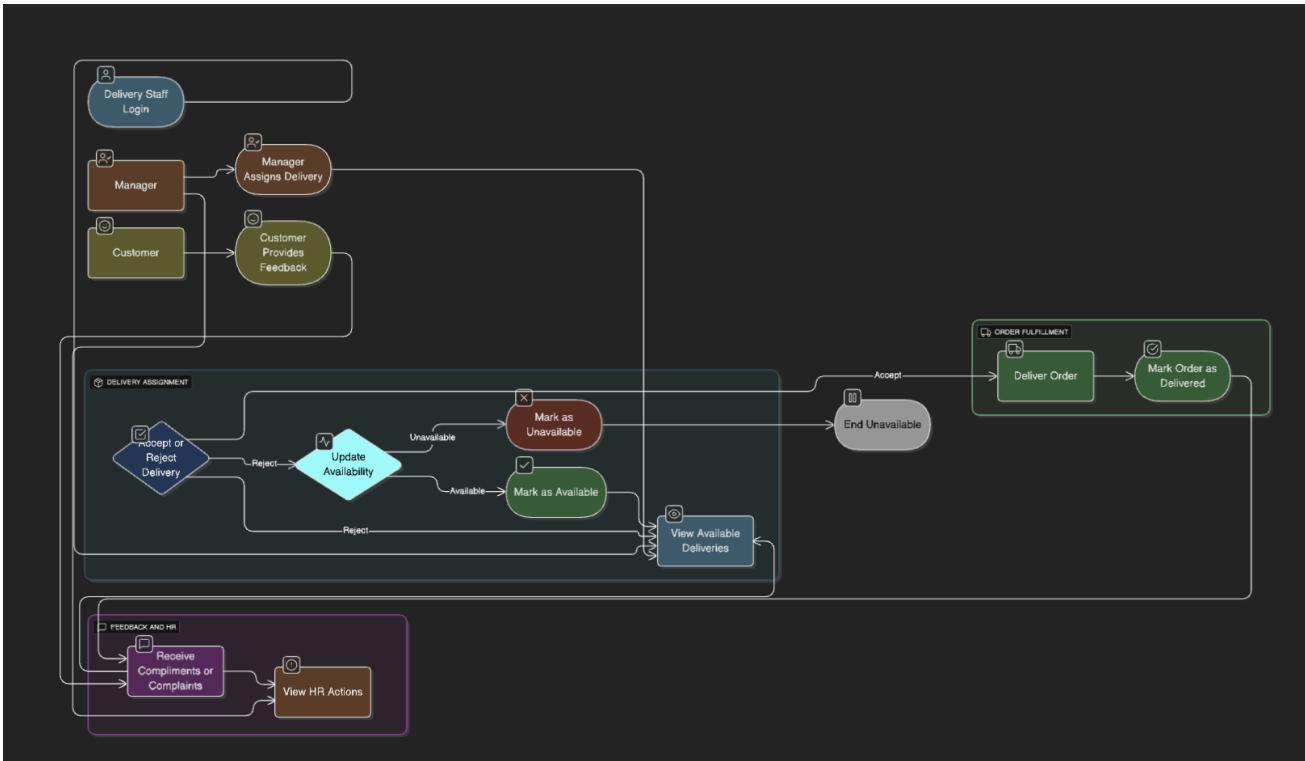
Manager Use Case



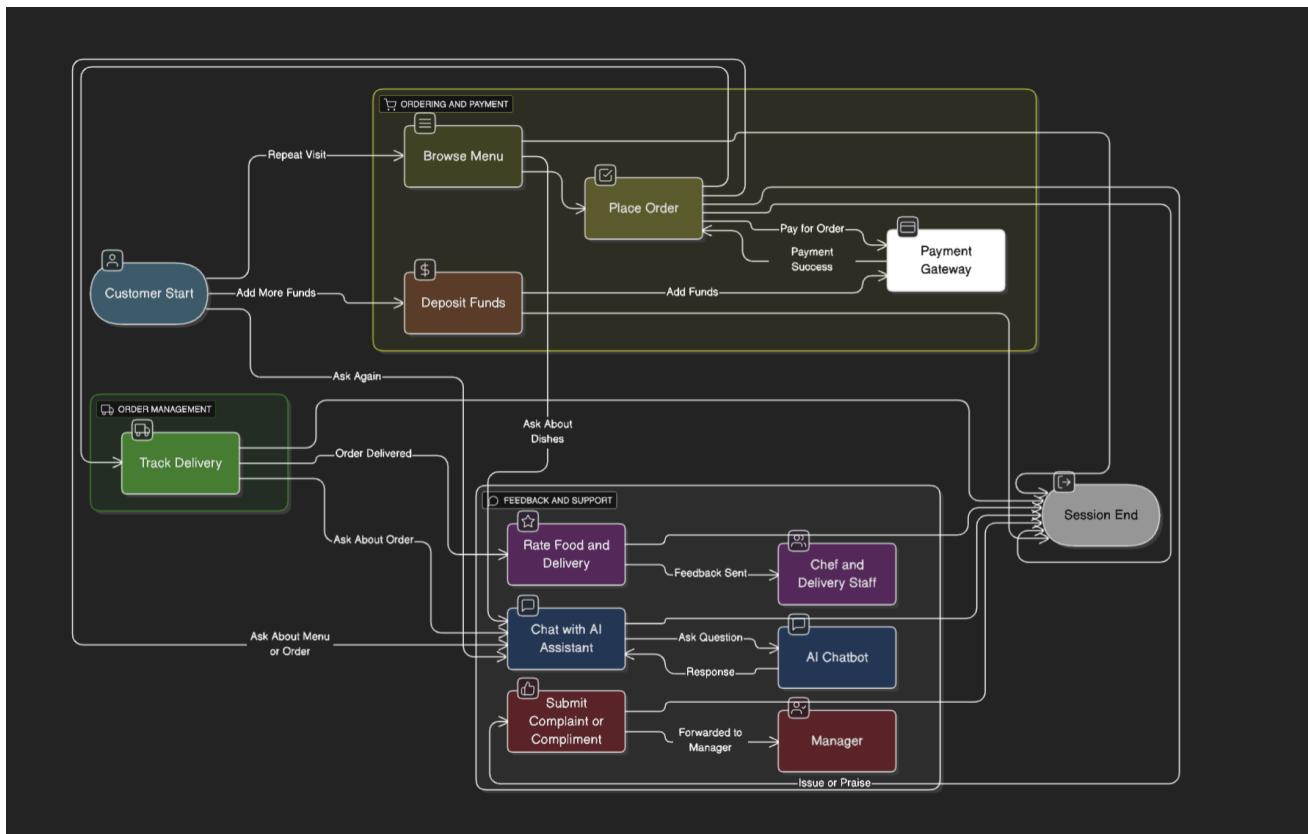
Chef Use Case



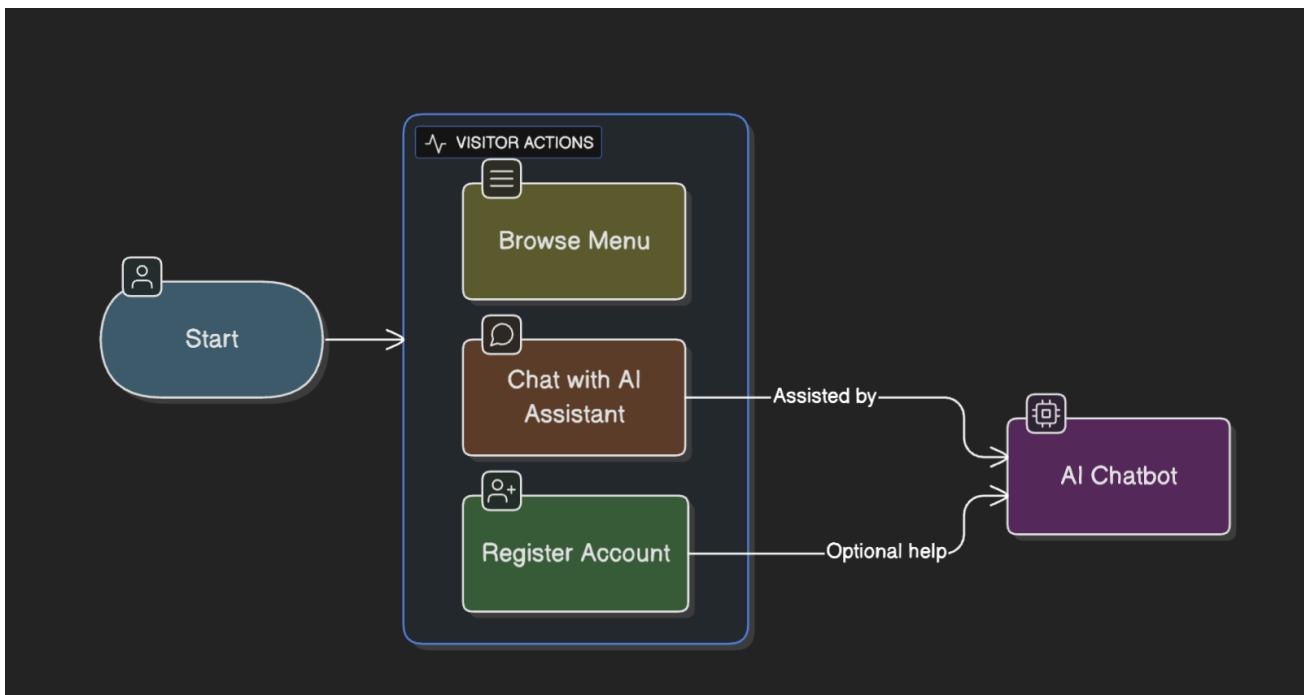
Delivery Staff Use Case



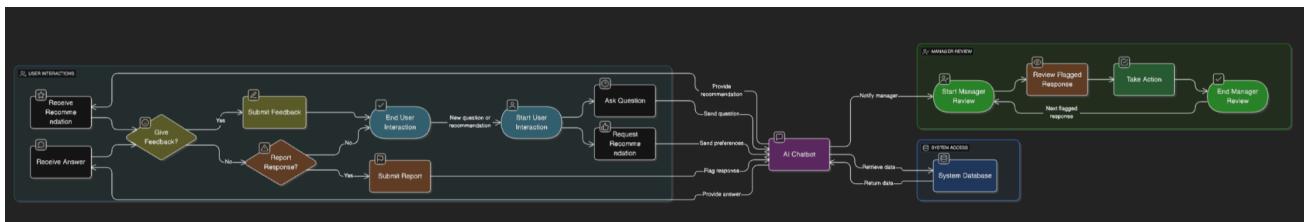
Customer Use Case



Visitor Use Case



AI Chatbot Use Case



4. Supporting Information

Images below show a mockup of our application

 AI Restaurant
Smart Ordering System

Sarah Johnson Customer [Logout](#)

Account Status

Registered Customer

Progress to VIP

\$55.00 more to spend or 1 more orders

Account Balance

\$75.00

[Deposit Funds](#)

Order Statistics

2
Total orders
Total spent: \$45.00

[Browse Menu](#) [My Orders](#) [Discussions](#) [AI Assistant](#)

All Categories Most Popular



Pad Thai
Traditional Thai stir-fried noodles with shrimp, peanuts, and tamarind



Margherita Pizza
Wood-fired pizza with San Marzano tomatoes, fresh mozzarella, and basil



Dragon Roll
Premium sushi roll with eel, avocado, and sweet sauce

 AI Restaurant
Smart Ordering System

Visitor

[Browse Menu](#) [AI Assistant](#) [Register](#)

Existing Customer?

Login
Enter your credentials to access your account

Email

Password

Demo accounts:

Manager: manager@restaurant.com
Chef: chef1@restaurant.com
Delivery: delivery1@restaurant.com
VIP Customer: john@example.com
Customer: sarah@example.com

[Login](#)

New Customer?

Apply for Registration
Submit your application to become a registered customer. The manager will review and approve your request.

Full Name

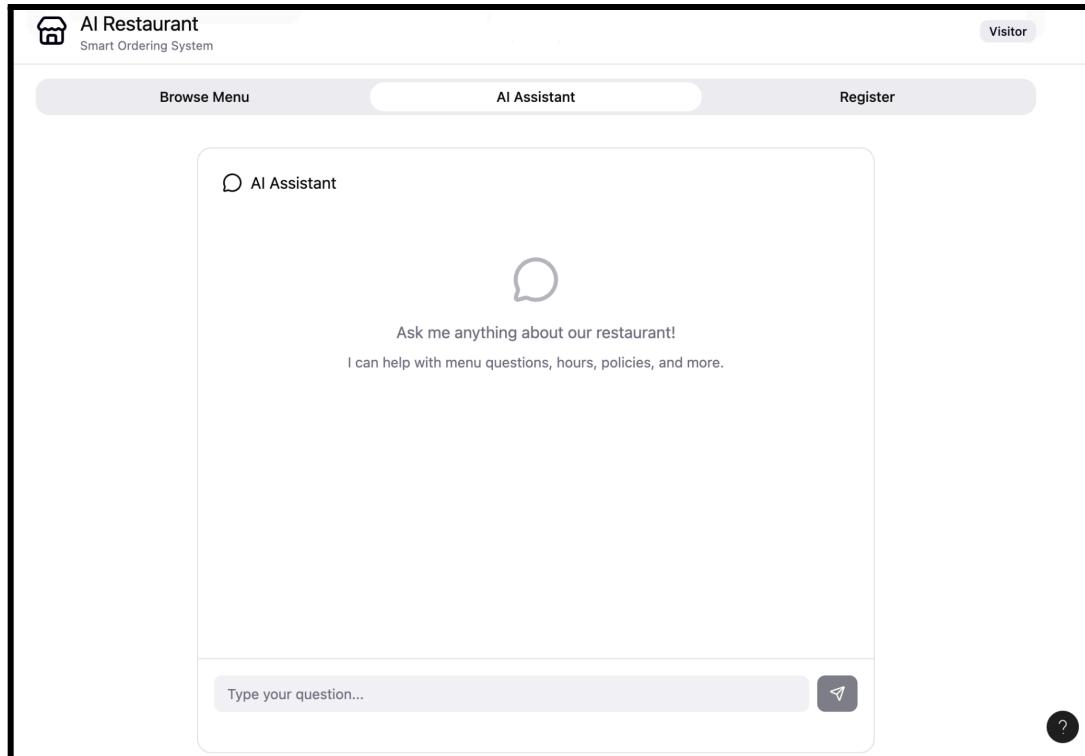
Email

Password

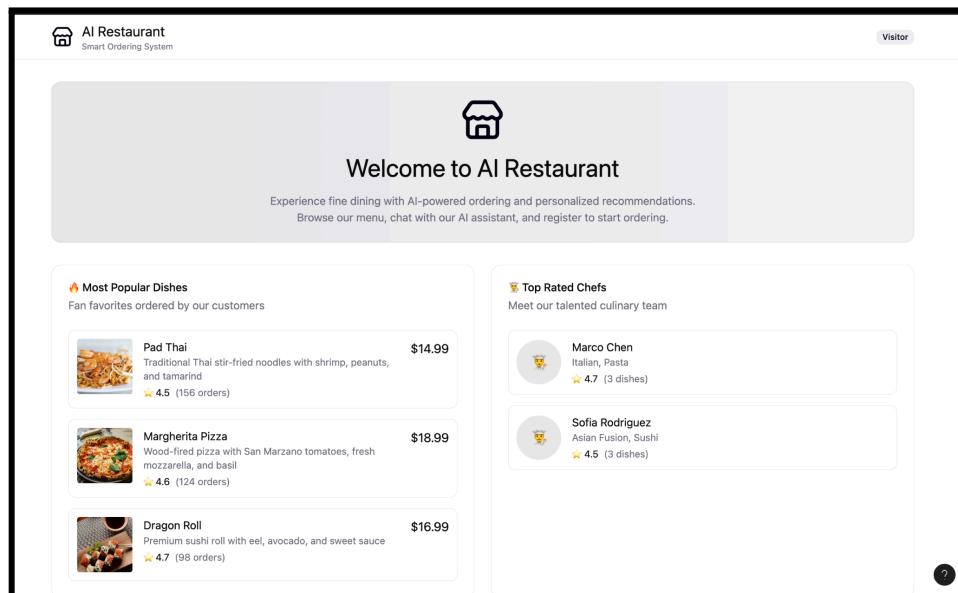
Confirm Password

[Submit Application](#)

This is the registration / login page



This is the AI Assistant Page



HOME PAGE

1

Shopping Cart

Delivery Details

Payment Method

Your Shopping Cart

Subtotal:	\$135.96
Shipping:	\$5.99
Tax:	\$11.10
Total:	\$153.05

Next: Delivery Details

Shopping Cart

1

Shopping Cart

2

Delivery Details

Payment Method

Delivery Details

Full Name
John Doe

Email Address
john.doe@example.com

Phone Number
(123) 456-7890

Street Address
123 Main Street

City New York	State NY	ZIP Code 10001
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Country
Select Country

Back to Cart

Next: Payment Method

Delivery Details

1 2 3

Shopping Cart Delivery Details Payment Method

Payment Method

Credit/Debit Card
Pay with Visa, Mastercard, or American Express

PayPal
Pay with your PayPal account

Apple Pay
Pay with Apple Pay

Card Number
1234 5678 9012 3456

Expiry Date CVV
MM/YY 123

Name on Card
John Doe

[Back to Delivery](#) [Confirm Order](#)

Payment Method