WEBISDOM AI

Scaling Flavor. Expanding Experience.

Fifty Shades Of Gravy

"Where design meets delight, and dining becomes a lifestyle."

Presented By: **Vignesh Loharkar**

1. AI-Powered Restaurant Chatbot

1.Understands customer intents (menu, orders, bookings, general queries).
2. Smart responses with fallback handling.
3. Handles ordering conversation flow.
4. Handles advance bookings and same-day bookings.
5.Automatically assigns tables for “today” bookings.
5 For advance booking: confirms date asks payment assigns table on arrival.

2.Dynamic Menu System

1.Fetches live menu data from Dashboard .
2.Menu includes: Dish Category Price Preparation Time Automatically loads full menu on the frontend.
3.Clean handling even if items are added/removed.

3. Ordering System

1.Add items to cart.
Update quantity.
Tracks toppings.
Calculates price dynamically.
2.Stores full order details in the orders dashboard with columns:

Dish	Price Time	Toppings
Category	Ordered _ At	Customer _ID
Quantity	Price	Customer _ Name
Table _ No	Payment _ Mode	

4. Table Booking System

1.Today’s Booking Checks available tables.
2. Assigns next available table automatically.
3. Advance Booking Stores booking details in advance_booking sheet.
4.Sends professional confirmation message: Your advance reservation for DATE is recorded. Please complete the payment to hold your booking. Table number will be assigned on arrival.

5. User Authentication System

1.Signup + secure password hashing.

2.Login with JWT.

3.Data stored in users sheet with:

Name

Email

Password _ Hash

Created _ At

6. Payment Gateway Integration

1.Stripe payment intent creation.
2.Redirect to payment page.
3.Order confirmation after successful payment.
4.Creates a payments link in the chat-section.
5.Payments also be created while Booking Table in Navbar. at the end of the processes a botton pop-up of pay-now

7. Admin Dashboard (via Google Sheets)

1. Menu management.
2. Order tracking.
3. Users management.
4. Booking logs.
5. User Information.

8. Personalized Menu & Smart Pricing System

8.1 Customer Behavior-Based Menu Personalization

- Identifies returning customers using normalized Customer ID (email).
- Analyzes the customer's last 2–3 completed orders.
- Detects frequently ordered ingredients (e.g., Paneer, Dal, Rice).
- Groups preferences by ingredient category, not exact dish names.
- Automatically prioritizes preferred ingredient dishes at the top of the menu.
- Works seamlessly even with inconsistent dashboard column naming (e.g., Dish with trailing spaces).

8.2 Ingredient Intelligence Engine

- Extracts dish names from historical orders in a schema-tolerant manner.
- Filters non-informative terms (butter, masala, extra, etc.).
- Determines a dominant ingredient based on frequency.
- Supports multiple cuisine patterns without hardcoded dish mappings.

8.3 Personalized Pricing Logic

- Menu prices are not static and are recalculated in real time.
- Personalized pricing is applied only to returning customers.
- Pricing adjustments are subtle to maintain customer trust.
- Pricing Rules:
- Preferred ingredient dishes:
- Price increased by ₹5–₹10
- Non-preferred dishes:
- Price reduced by ₹5
- Frequent monthly visitors receive higher personalization priority.

8.4 Table Demand-Based Price Surge

- System monitors real-time table occupancy.
- When table occupancy reaches 80% or above:
- A demand multiplier is applied to all menu items.
- Surge pricing is applied before personalization adjustments.
- Ensures transparent and controlled revenue optimization.

8.5 Unified Pricing Engine

- Single pricing engine used across:
- Chat-based menu display
- REST API menu endpoint
- Order placement logic
- Prevents price mismatch between menu display and final billing.
- Eliminates duplication and inconsistency across services.

8.6 New User Handling

- New or infrequent users receive the standard menu.
- No personalization or price adjustments are applied.
- Ensures fair and predictable first-time experience.

8.7 User Experience Enhancements

- Personalized dishes are visually highlighted (e.g., star indicator).
- Menu remains clean, readable, and logically ordered.
- Personalization occurs silently without intrusive messaging.
- Supports future transparency messaging if required.

8.8 Data Reliability & Fault Tolerance

- Robust handling of Google Sheets schema issues:
- Trailing spaces in column headers
- Missing or reordered columns
- Safe key normalization ensures uninterrupted personalization.
- System remains operational even during partial dashboard inconsistencies.

8.9 Scalability & Extensibility

- Designed for easy extension:
- Monthly loyalty tiers
- AI-driven taste profiling
- Time-based menu optimization
- Revenue analytics and A/B testing
- Modular architecture allows reuse across channels.

8.10 Business Impact

- Improves customer engagement through relevance-based menus.
- Encourages repeat visits via subtle personalization.
- Increases average order value during high-demand periods.
- Balances personalization with pricing fairness.

9.1 Full Tech Stack

Backend

- FastAPI – High-performance API orchestration
- Gemini LLM – Conversational inference engine
- RAG Pipeline – Context-aware response grounding
- Google Sheets API – Lightweight operational datastore
- Stripe API – Secure payment orchestration

9.2 Full Tech Stack

Frontend

- React – Component-driven UI architecture
- Dynamic Menu Engine – Real-time data hydration
- Cart & Ordering Module – State-synchronized commerce flow

Market Opportunity

The Appetite for Lifestyle Dining

Premium

Premium food and beverage is no longer about indulgence—it's about identity. Urban professionals and Gen Z consumers are seeking curated dining spaces that double as social and work-friendly environments. With strong demand for hybrid models and premium experiences, Ingoude stands positioned at the center of this cultural shift.