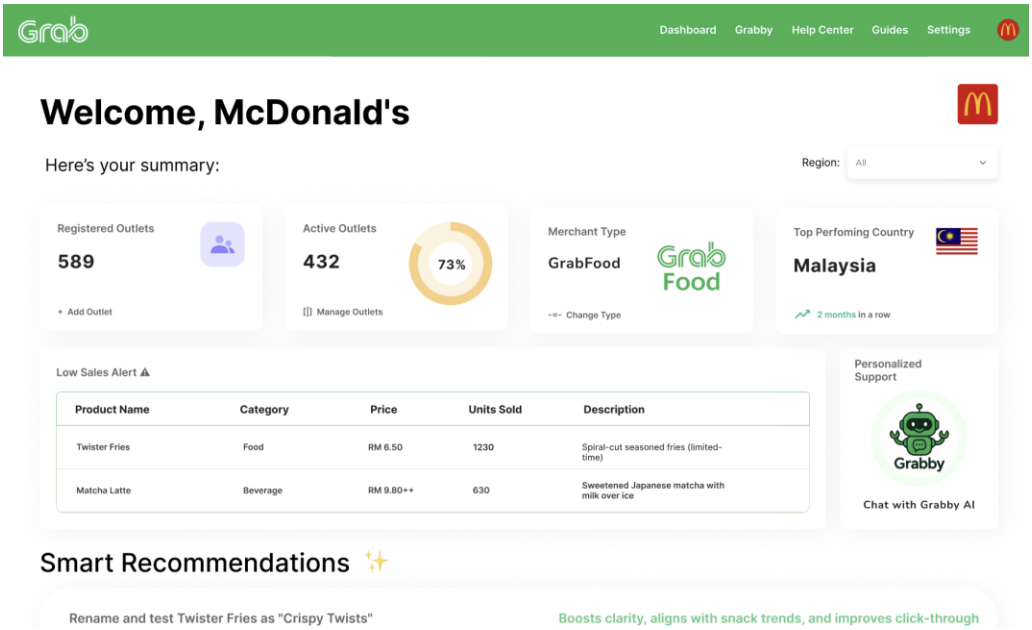
Grabby – Documentation for MEX Assistant (Prototype)



Introduction

Grabby is an AI-powered chatbot designed to assist McDonald's in managing day-to-day operations using smart, simple conversations. Our chatbot gives real-time insights, proactive recommendations, and business alerts, making it easier for merchant-partners to focus on growth while staying informed about what matters the most.

Solution Architecture

Grabby is designed to be a clever, intuitive assistant that helps merchants like McDonald's make better decisions by talking just like a real person would. Since this is still a prototype, the focus is on creating a solid foundation that can be realistically scaled and integrated into Grab's existing ecosystem.

At the heart of Grabby's intelligence is a Generative AI model, such as OpenAI's GPT, which powers natural conversations. It understands the merchant's questions even if they're informal, filled with typos, or written in a mix of languages. To make this work smooth:

1. **Front-End Interface (Chat UI)**

We designed the chatbot interface using Figma as a low-fidelity front-end to simulate real interactions. In production, this interface can be embedded into the GrabMerchant app for real-time use.

2. **Chat Engine (NLP-Powered)**

We use OpenAI's GPT-4 as the core Natural Language Processing engine. This enables Grabby to understand informal language, spelling mistakes, mixed grammar, and even multilingual phrasing.

For example, if a merchant types something like, "hi grabby, can I see yesterday's sales?", Grabby interprets the intent accurately and fetches the relevant sales data without needing the input to be perfectly structured.

3. **Backend Logic and Response Generation**

Custom backend logic is built to:

- Match merchant queries to relevant datasets
- Generate insights (e.g., top-selling items, inventory alerts)
- Trigger templates for personalization (e.g., seasonal trends)

4. **Data Pipeline (Prototype)**

Data from different CSV files is cleaned and structured using Python scripts, feeding directly into Grabby's brain. In a real-world build, this would connect to:

- GrabMerchant APIs
- Sales and inventory databases
- Real-time alerting systems

Data Utilization

Grabby isn't just a chatbot, it's a business companion that makes sense of complex data and turns it into something useful. For this prototype, we've used datasets such as items, transactions, and merchant metadata to simulate real insights for McDonald's. Here's how the data is used to power conversations:

- **Sales patterns** are analyzed from transaction logs to identify best-selling items, peak hours, and customer preferences.
- **Item metadata** allows Grabby to provide detailed information for each product (e.g., whether a certain McFlurry is trending).
- **Transaction-item mapping** allows Grabby to track combo purchases or upselling opportunities (e.g., "Customers who ordered McSpicy also added French Fries 72% of the time").
- **Merchant data** (like store ID and location) tailors insights so the advice is relevant to *your* outlet, not just general trends.

This isn't just raw data, it's structured and interpreted so Grabby can proactively offer alerts, like "Your Chicken Nuggets sales dropped 15% this week. Want to run a promo?"

Personalization Strategy: Every Merchant is Unique

Grabby is built to understand that every McDonald's outlet—or any merchant—is different. That's why personalization is at the core of our assistant. Instead of generic insights, Grabby adapts its tone, suggestions, and even language based on the merchant's history and behavior. Here's how that works:

- Merchant profiles are used to tailor recommendations. For example, a newly opened outlet might get tips on how to attract foot traffic, while a high-volume store could receive suggestions for improving queue times or inventory planning.
- Interaction memory allows Grabby to recall past chats and avoid repeating advice. If a merchant asked about lunch peak hours yesterday, Grabby would not bring it up again today unless something changed.
- Language and tone shift depending on how the merchant talks. For example, if a merchant types something casual like, "hey, any promos for mcchickn today?"—even with spelling mistakes or informal wording—Grabby still understands the intent and replies with a professional yet friendly message like, "Sure! You could try offering a lunch combo McChicken + Coke usually performs well around 12–2 PM."

- Region-specific comparisons help McDonald's owners understand how they're performing versus other locations nearby.

Summary

Grabby is built to simulate what an ideal AI assistant could do for merchants like McDonald's intuitive, proactive, and tailored to their daily business. It focuses on what matters: showing relevant trends, reducing friction in operations, and keeping communication simple and human.

This documentation shows how the prototype already simulates that flow using structured mock data and AI-powered dialogue. In future stages, this could evolve into a real-time assistant embedded directly within the GrabMerchant platform.