

A large thermometer is positioned diagonally on the left side of the slide. The background is a bright blue sky with scattered white clouds. The thermometer has two scales: Celsius on the left and Fahrenheit on the right. The red liquid column is visible, showing a temperature of approximately 30°C (86°F).

Automation of Weather-Based Sales and Staffing Decisions

Using AI + real-time weather data to optimize daily operations, increase sales, and reduce manual decision-making.

Automation of Weather-Based Sales and Staffing Decisions



This System leverages AI and real-time weather data to intelligently guide daily retail operations for Bayside Brews & Scoops. By automatically analyzing changing weather conditions, the system generates actionable recommendations for product focus, staffing levels, and customer promotions.

The result is a fully automated decision-making workflow that improves sales performance, enhances operational efficiency, and eliminates the need for manual forecasting and planning.

Problem

Bayside Brews & Scoops
Miami, Florida



Manual Decision-Making is Inefficient

- Weather heavily impacts customer behavior at beach kiosks
- Managers manually check forecasts each morning
- Decisions on staffing and product mix are delayed or inconsistent
- Missed opportunities:
 - Overstaffing on slow days
 - Understaffing during peak demand
 - Poor product allocation (e.g., too many hot drinks on hot days)

Result: Lost revenue and wasted labor costs



Solution

AI-Powered Automated Decision System

- Automatically pulls daily weather at 7:00 AM
- Uses AI (Gemini) to interpret conditions
- Instantly generates:
 - Product mix recommendations
 - Staffing adjustments
 - Targeted promotional messages
- Sends a clear, actionable email to the manager

Outcome:

Smarter decisions, faster execution, higher profitability

AI & Automation Tools

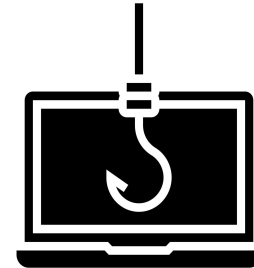
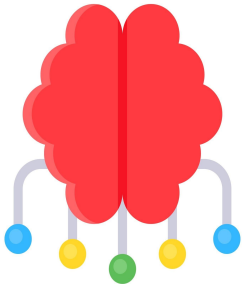
Zapier

OpenWeather
API

Google Gemini

Webhooks by
Zapier

Gmail



Zapier

How it works

Zapier is the **orchestrator** (the “brainstem” of your system):

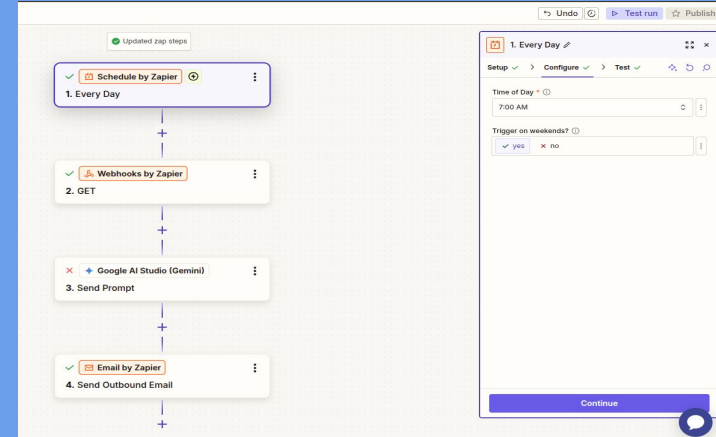
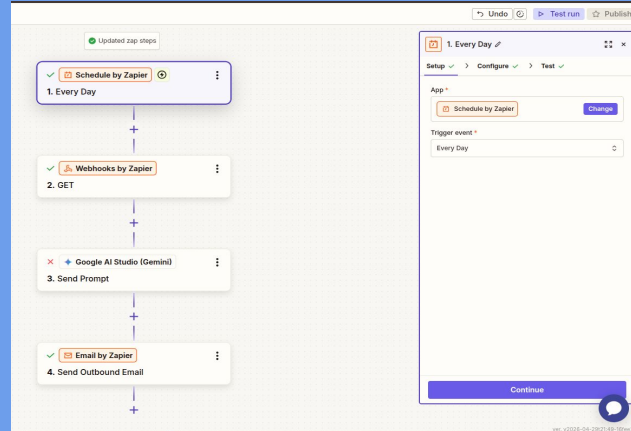
- Triggers workflow at 7:00 AM
- Connects all tools together
- Passes data step-by-step (weather → AI → email)

Why it works

- No coding required
- Reliable scheduling + integrations
- Handles conditional logic (like severe weather alerts)

👉 Without Zapier, you’d need custom backend code to connect everything.

A Zapier scheduled trigger runs automatically every day at 7:00 AM (Monday–Sunday).



Webhooks by Zapier performs a GET request to the OpenWeather API, retrieving structured weather data from OpenWeather based on specified query parameters.

Webhooks by Zapier

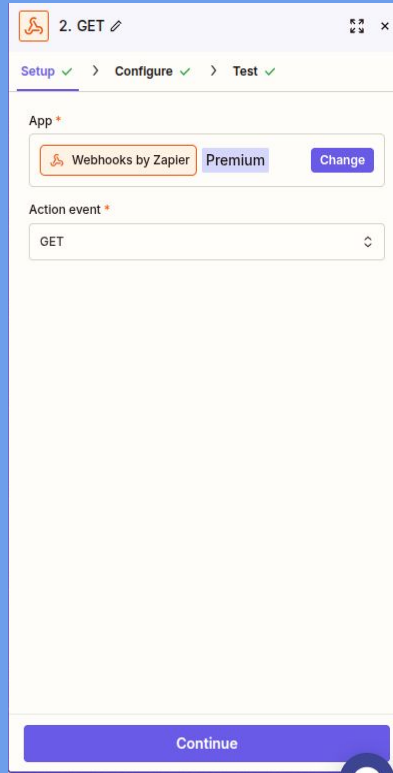
How it works

- Sends HTTP requests to APIs (like OpenWeather)
- Receives raw JSON data
- Makes it usable inside Zapier

Why it works

- Bridges tools that don't have native integrations
- Gives flexibility to connect *anything with an API*

👉 Think of this as your **data pipe**.



2. GET

Setup ✓ > Configure ✓ > Test ✓

App *

Webhooks by Zapier Premium Change

Action event *

GET

Continue

OpenWeather API

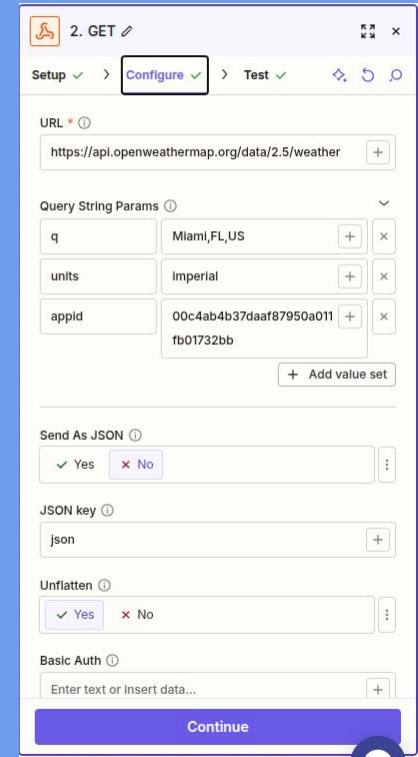
How it works

- Sends a **GET request**
- Returns structured JSON:
 - Temperature
 - Weather description
 - Humidity, wind, etc.

Why it works

- Real-time, location-specific data
- Standardized format → easy for AI to interpret
- Fast + lightweight API

👉 This is your **data source**—everything depends on accurate input.



2. GET

Setup ✓ > **Configure** ✓ > Test ✓

URL *

https://api.openweathermap.org/data/2.5/weather

Query String Params

q	Miami,FL,US	+	×
units	Imperial	+	×
appid	00c4ab4b37daaf87950a011fb01732bb	+	×

+ Add value set

Send As JSON

✓ Yes ✗ No

JSON key

json

Unflatten

✓ Yes ✗ No

Basic Auth

Enter text or insert data...

Continue

Google Gemini receives dynamic weather data (temperature and conditions) and produces structured outputs, including product focus, staffing recommendations, and promotional messaging.

Google Gemini

How it works

- Takes weather data as input
- Uses natural language reasoning to:
 - Interpret conditions
 - Generate recommendations
 - Write promotions

Why it works

No need to hard-code rules like:

- “If temp > 85 → sell gelato”
- Handles nuance:
 - Humidity + wind + context (beach location)

👉 This is your **decision engine**—it replaces manual thinking.

3. Send Prompt

Setup > Configure > Test

App

Google AI Studio (Gemini) Change

Action event

Send Prompt

Account

Google AI Studio (Gemini) Change

Used in 1 Zap

Google AI Studio (Gemini) is a secure partner with Zapier. [Your credentials are encrypted and can be removed at any time.](#) You can [manage all of your connected accounts here.](#)

Continue

3. Send Prompt

Setup > Configure > Test

API Version

Default

Model

Gemini Pro Latest

System Instructions

You are an operations assistant for a retail beach kiosk.

Kiosk Name: Bayside Brews & Scoops

Location: Miami, FL

Context:

- The kiosk serves hot drinks, cold drinks, gelato, and pastries
- It is located near the beach, so weather strongly affects customer demand

Prompt

Based on the weather conditions below, generate a concise daily operations plan.

Weather Data:

Continue

3. Send Prompt

Setup > Configure > Test

Prompt

Based on the weather conditions below, generate a concise daily operations plan.

Weather Data:

Temperature: 1. Main Temp: 77.86 °F

Condition: 2. Weather Description: light rain

Return your answer in this EXACT format:

Product Focus:

[1-2 sentences on which products to prioritize and why]

Staffing:

[One clear recommendation: add staff, reduce staff, or no change, with a short reason]

Promotions:

1. [Promo message under 120 characters]

2. [Promo message under 120 characters]

Guidelines:

- Be specific and practical
- Keep tone friendly and business-oriented

Continue

Gmail serves as the delivery mechanism, automatically sending a clear, actionable daily plan to the manager's inbox based on real-time data and AI analysis.

Gmail

How it works

- Receives formatted output from Zapier
- Sends automatically send daily email at 7:00am to manager

Why it works

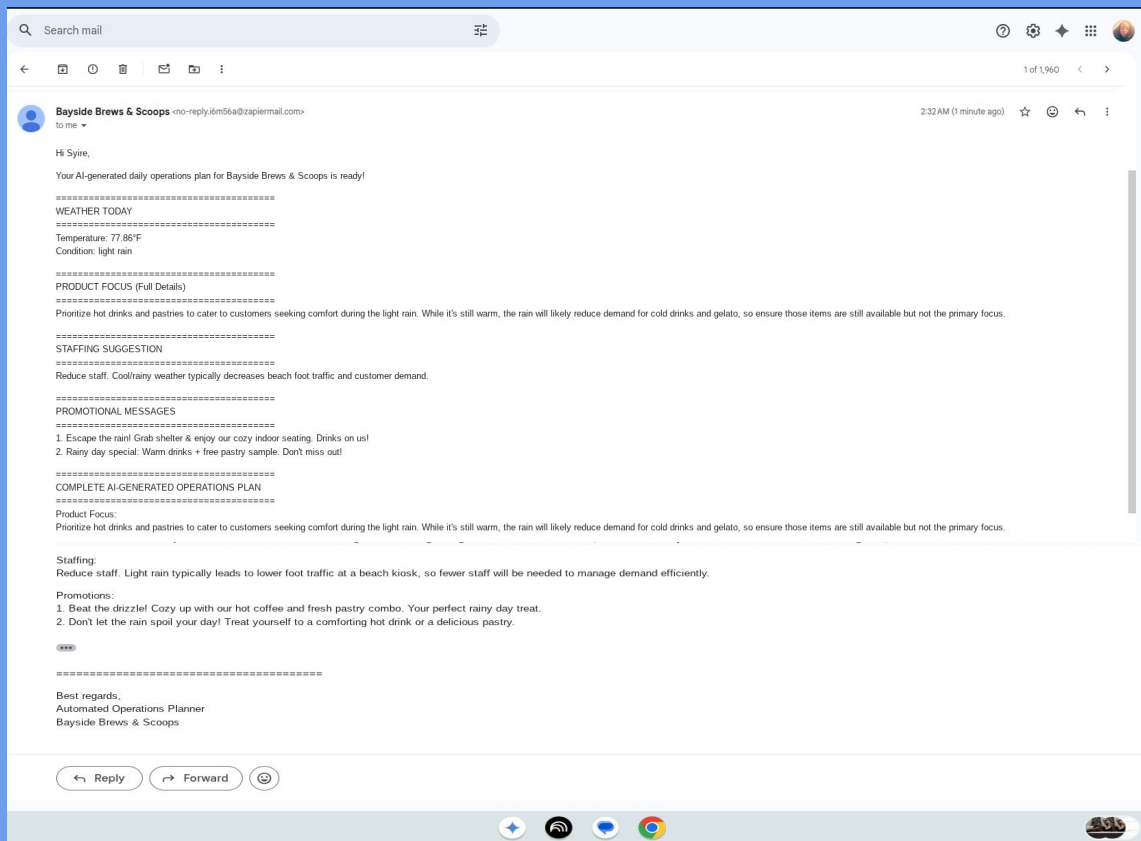
- Immediate, familiar communication
- No training required for end user
- Easy to scale across managers

👉 This is your **delivery system**.

This screenshot shows the '4. Send Outbound Email' configuration step in Zapier. At the top, there are buttons for 'Undo', 'Test run', and 'Publish'. Below the title, there are tabs for 'Setup', 'Configure', and 'Test', all with green checkmarks. The 'App' section shows 'Email by Zapier' with a 'Change' button. The 'Action event' section shows 'Send Outbound Email' with a dropdown arrow. At the bottom, there is a blue 'Continue' button.

This screenshot shows the '4. Send Outbound Email' configuration screen with the 'Configure' tab selected. It displays the following fields: 'To' (syireblu@gmail.com), 'Subject' (Daily Operations Plan - Bayside Brews & Scoops), and 'Body (HTML or Plain)' (Hi Syire, Here's your daily operations plan for Bayside Brews & Scoops based on today's weather: 3. Candidates, Have a great day! Automated Operations Assistant). There is an 'Attachment' field with a placeholder 'Enter text or insert data...'. The 'From Name' field is set to 'Bayside Brews & Scoops'. The 'Reply To' field has a placeholder 'Enter text or insert data...'. At the bottom, there is a blue 'Continue' button.

Example

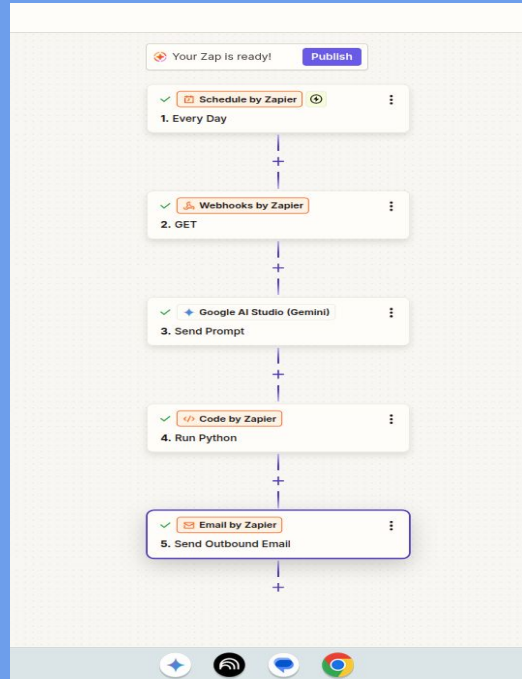


Workflow diagram

Why This System Works

1. Data → Intelligence → Action Loop

- OpenWeather = **Data**
- Gemini = **Intelligence**
- Zapier = **Execution**
- Gmail = **Delivery**



2. Replaces Human

Before:

- Manager checks weather
- Thinks through decisions
- Writes promos manually
- Over/under staffs

After:

- System does all 3 instantly at 7:00AM



Benefits Turning Weather Into Real-Time Business Decisions

Faster Decision-Making

- Eliminates manual weather checks
- Delivers a ready-to-execute plan at 7:00 AM daily
- Reduces delays in staffing and product prep

Increased Revenue Opportunities

- Aligns product offerings with real-time demand (e.g., gelato on hot days)
- Drives higher-margin sales through targeted promotions
- Captures more impulse purchases with timely messaging

Optimized Staffing

- Prevents overstaffing on slow days
- Ensures adequate coverage during peak demand
- Improves labor cost efficiency

AI-Driven Insights

- Interprets complex weather conditions automatically
- Replaces guesswork with consistent, data-driven recommendations
- Adapts to different scenarios without manual rule-setting



Conclusion



This system demonstrates how AI and automation can transform everyday retail operations into a data-driven, self-adjusting workflow. By combining real-time weather data with intelligent decision-making, the kiosk can proactively adapt to changing conditions without manual input.

The result is a more efficient, responsive, and profitable operation—where staffing, product strategy, and promotions are continuously optimized. This approach not only improves daily performance but also creates a scalable model that can be replicated across multiple locations.