ServiceAgent Take Home Assessment

Introduction: What is n8n?

n8n is an open-source workflow automation platform that allows you to connect APIs, services, and internal tools without writing full applications. It works using nodes (each representing an action: fetch data, transform data, run logic, send email, etc.) and allows you to visually build multi-step automations.

You can:

- Call APIs
- Process and transform data
- Connect databases
- Automate notifications (email, Slack, etc.)
- Run scheduled tasks
- Write custom logic with JavaScript when needed

This assignment is designed to evaluate your ability to build a small automation flow using n8n's capabilities in a clean, structured, and maintainable way.

You can sign up for free here: https://n8n.io/

Task

You will build a simple but complete daily automation workflow using n8n, a weather API, Supabase, and email delivery.

The workflow must:

1. Fetch daily weather data for a city
2. Generate a formatted weather summary
3. Detect basic weather alerts (rain, heat, frost)
4. Save the result to a Supabase table
5. Send a daily weather email to a recipient

This should be a simple and straightforward assessment but it shows how you think about API usage, data transformation, workflow structure, and integrations.

Functional Requirements

1. Trigger

Use a Cron node to run the workflow daily at a fixed time.

2. Weather API

Use any public weather API (e.g. OpenWeatherMap). Retrieve:

- City
- Temperature
- Weather condition/description
- Humidity
- Wind speed

Parse the JSON response and prepare the data for downstream processing.

3. Weather Logic & Alert Rules

Normalize temperature to °C or °F.

Build a formatted summary, eg:

- *Daily Weather - London*
- *Temp: 14 C*
- *Humidity 76%*
- *Wind: 12 km/hr*

Alert: Rain Expected Today

Determine the alert type using simple rules:

- If condition contains rain, snow, drizzle, storm, thunder → precipitation alert
- If temperature > 32°C / 90°F → heat alert
- If temperature < 0°C / 32°F → frost alert
- Otherwise → none

Use any combination of IF node, Switch node, Code node, or AI Agent node. Feel free to customize the rules and summary format creatively.

4. Save to Supabase

Insert a row into a Supabase table named weather_logs.

Recommended schema:

Column	Type

id	UUID/serial
run_at	timestamp
city	text
temperature	float
temperature_unit	text
condition	text
humidity	int
wind_speed	float
alert_type	text
raw_response	json/text

Use Supabase REST API or Postgres connection through n8n.

5. **Send Email**

Use an Email node and send daily emails with weather updates.

Include:

- Subject: Daily Weather for <CITY> – <DATE>

- Body: Weather summary + alert

HTML or plain text are both acceptable.

Bonus (Optional)

- Make the city configurable
- Add retry logic
- Loop over multiple cities
- Include additional weather metrics

Deliverables

Submit in either email or github link:

1. Exported n8n workflow (.json)
2. Short README with:
     - API setup & key config
     - Supabase details
     - Email configuration
     - How to import/run the workflow
3. Screenshot of the workflow