Supply Chain Risk Agent

Installation and User Guide

1. Overview

The **Supply Chain Risk Agent** is an intelligent automation solution designed to proactively manage logistics disruptions caused by severe weather. By integrating ERP data (Excel), real-time weather intelligence (OpenWeatherMap API), and Generative AI, this agent identifies high-risk shipments and suggests alternative approved vendors to the Supply Chain Manager for approval.

2. Prerequisites

Before installing the agent, ensure the following requirements are met:

- **Automation Anywhere Control Room:** Automation 360 (v.33 or later recommended).

- **AI Model Connection:** An active connection to **Agent 4.1** (or GPT-4o / Claude 3.5 Sonnet) configured in the AI Agent Studio.

- **Application:** Microsoft Excel (Desktop version) installed on the bot runner machine.

- **API Key:** A valid API Key from OpenWeatherMap (Free tier is sufficient).

3. Installation Steps

1. Log in to your Automation Anywhere Control Room.

2. Navigate to **Automation > Workspace**.

3. Click the **Import** button in the top right corner.

4. Select the SupplyChainRiskAgent.zip file.

5. Ensure the package is imported into the Bot Store folder to maintain the correct folder structure.

4. Configuration & Data Setup

To run the agent successfully, you must configure the input data and API credentials.

Step 1: Prepare the Excel Data

1. Download the template file **Supply_Chain_Data.xlsx** provided with this package.

2. Save this file to a local directory on your machine
   (e.g., C:\Temp\Supply_Chain_Data.xlsx).

3. **Important:** Open the Bot_Read_Excel_Orders task bot and update the **File Path** in the "Open Excel" action to match the location where you saved the file.

Note on Data Structure:

- **Sheet 1 (Open_Orders):** Contains pending orders. Ensure the Origin_City column has a valid city name.

- **Sheet 2 (Vendor_Master):** Contains the list of alternative suppliers.

Step 2: Configure Weather API Key

1. Open the Get_Weather_Data API Task in the Control Room.

2. Locate the str_API_Key variable or the assignment action at the beginning of the logic.

3. Replace the placeholder text with your actual **OpenWeatherMap API Key**.

4. Save the task.

Step 3: Configure Email Notifications

1. Open the Bot_Send_Email_Action task bot.

2. Locate the **Email: Send** action.

3. Update the **"To"** field with your own email address to receive the approval/rejection notifications during testing.

4. Save the task.

5. How to Run the Agent

The agent is triggered via the **Process Composer**.

1. Navigate to Bot Store > SupplyChainRiskAgent.

2. Open the **Main_SupplyChain_Process** file.

3. Click the **Run** button.

Execution Flow:

1. **Analysis:** The bot will open Excel, read the pending orders, check the weather via API, and send data to the AI Agent.

2. **Human-in-the-Loop (Approval):**

- If a **HIGH RISK** (e.g., Storm) is detected, the process will pause and create a task for the manager.
- Go to **Automation Co-Pilot** (or "My Tasks" / "Process Management") in the Control Room.
- Open the task named **"Risk Approval Request"**.
- Review the AI's recommendation and select **"Approve Switch"** or **"Keep Original"**.
- Click **Submit**.

3. **Completion:**

- The bot will resume, update the Excel file with the decision, and send a confirmation email.

6. Troubleshooting

- **Issue:** The process finishes immediately without asking for approval.
  - **Cause:** The weather in the target city might be "Clear/Safe" (Low Risk).
  - **Solution:** Change the Origin_City in the Excel file to a city currently experiencing bad weather, or check the AI Agent logic.
- **Issue:** Excel file does not update.
  - **Cause:** The file might be open in the background.
  - **Solution:** Ensure Supply_Chain_Data.xlsx is closed before running the bot.
- **Issue:** "Form" step hangs or doesn't appear.
  - **Cause:** The form assignee might not be set correctly.
  - **Solution:** In the Process Composer, select the Form node and ensure **"Assignees"** is set to $Initiator$ or your specific user account.

Disclaimer: This agent is designed for the Agentic Bounty Challenge. For production use, ensure proper error handling and secure credential management (Credential Vault) are implemented.