**Assignment 1: AI-Powered Email Workflow**

**Workflow Description**

In this assignment, I developed an automated workflow using the **n8n framework**. The workflow performs the following tasks:

1. **Receive Emails**
   * The workflow listens for incoming emails using a **Gmail Trigger** in n8n.
   * Gmail access is established through a **Google OAuth 2.0 client**, which securely connects n8n to Gmail.
2. **Send Email Content to AI Agent**
   * The body of each email is sent as a **prompt to Google’s Gemini AI**.
   * The AI agent requires three inputs: **Chat Model (mandatory)**, **Memory**, and **Tools**.
3. **Send AI Response via Gmail**
   * The AI-generated response is then sent to a specified email address using the **Gmail API**, completing the automated email interaction.

**Implementation Details**

* **n8n Framework**: Orchestrates the workflow and triggers actions based on email events.
* **Google Cloud**: Provides OAuth 2.0 credentials to authorize secure access to Gmail.
* **Google AI Studio**: Supplies the API key and configuration for the AI agent.
* **Automation Logic**:
  + Gmail Trigger → Send prompt to AI → Receive AI response → Send reply email.

This workflow demonstrates **integration of AI with automated email processing**, showcasing skills in cloud services, workflow automation, and AI API usage.