

AI AUTOMATION CERTIFICATE FOR PROFESSIONALS

3 DAYS (21 HOURS) | PHYSICAL

MALAYSIA HR FORUM ACADEMY
LEVEL 12, LOT 12A, MENARA PKNS PETALING JAYA,
JALAN YONG SHOOK LIN, 46050 PETALING JAYA

RM 4,500



100% HRDC Claimable



General Information / Requirements

This 3-day advanced course teaches professionals how to build AI-powered automated workflows using n8n Cloud. Participants will learn to create intelligent agents with RAG, workflow automation, multi-agent orchestration, and integrations with tools like Gmail and Telegram. The course progresses from automated summarisation to advanced chatbot deployment, enabling learners to build AI agents that retrieve information and respond effectively to real-world queries.

Target Audience

Strategy & operations leads, client engagement teams, analysts, product owners, and cross-functional teams interested in AI workflow automation, knowledge bots, reporting, chatbots, and multi-channel communication.

Pre-requisites

Participants should have basic knowledge of generative AI (or have completed the Generative AI for Daily Work Optimisation programme) and have the following accounts ready: Google, ChatGPT, Claude, and Telegram.

Use Cases

Automating market news summaries, deploying Telegram-based RAG chatbots, escalating unanswered queries to human advisors, and integrating Google Sheets for user preferences and message logs.

Module Overview

This hands-on course goes beyond prompting. It focuses on building resilient, multi-agent workflows that communicate clearly, retrieve accurately, and operate responsibly—equipping teams with the ability to deploy real-world AI systems at scale.

Learning objectives

- Design and deploy AI-powered workflows in n8n Cloud that connect tools, models, and users across multiple channels.
- Build dynamic agents that retrieve data from internal vector databases, live news feeds, and user profiles—responding based on context, tone, and input complexity.
- Apply “Vibe Coding” techniques to rapidly prototype, debug, and customise nodes using reasoning-based LLM prompts.
- Structure and maintain a knowledge base.
- Configure multi-layer fallback strategies that ensure graceful degradation when content is missing, queries are out of scope, or agent logic fails.
- Deliver compliant, clear, and non-hallucinated responses that include inline citations, confidence labels, and mandatory disclaimers.
- Implement concurrent data-aware workflows, such as CRM-integrated agents that personalise messages and escalate when needed.
- Understand the ethical implications of AI-generated content and the importance of maintaining transparency, disclaimers, and human oversight where applicable.

Assessment Criteria

Participants will be assessed on their ability to build and automate a daily market brief, develop a live RAG chatbot with fallback logic, apply workflow design and structured prompting best practices, ensure compliance and safe AI responses, and successfully deliver two end-to-end solutions: a Daily Analyst Brief Automation and a Live RAG Chatbot.



Contents

MODULE 1: Introduction to non Cloud Platform

- Introduction to the n8n Cloud interface, e.g. nodes, triggers, branching, executions panel & importing templates.
- Introduction to the components of AI Agent – Planning, Memory, Perception and Tools and highlighting their difference with a regular Basic LLM Chain Node.
- Overview of API Keys, rate limits, costs and the best practices of credentials management (i.e. Open AI and Google Cloud)
- Recap of using the Ultimate Prompt to generate system instructions to Large-Language Models (LLM).
- Hands-on Experience: Creating a live chat AI via web interface

MODULE 2: : Vibe Coding Techniques & Best Practices

- Customize the custom web styling of the live chat node using LLM.
- Consult custom GPT bots for step-by-step setup of Telegram trigger and Send Message action node.
- Creation of custom functions in the Code Node alongside branching conditions using LLM reasoning model.
- Error troubleshooting and code debugging techniques.
- Hands-on Experience:
- Convert the chatbot into an omnichannel chatbot.

MODULE 3: Connecting Tools to AI Agents

- Set up RSS and SerpApi (Google News) for news extraction using manual trigger.
- Obtain technical stock chart using Chart-Img.
- Generate summaries with OpenAI, using prompt caps, inline citations, and disclaimers.
- Ingest news feeds and the summarised news into Google Sheets.
- Automate the sending out of the summarised news with Gmail and Telegram nodes.

MODULE 4: Mini Capstone - Daily Analyst Brief

- Fine-tune system prompts to change the tone, writing style and vocabulary level and the outline of the final summarised brief to be sent out.
- Modify the trigger so that it is executed on a scheduled basis instead of manual trigger.
- Showcase the pros and cons of using a Basic LLM Chain vs AI agent node in n8n



Contents

MODULE 5: Memory & RAG Essentials

- Overview of the Retrieval-Augmented Generation methodology
- Setting up a vector database to be used as the knowledge base.
- Create a workflow to ingest files from cloud storage and process text with precision.
- Reflect on improvements: precision, speed, and variety of content.
- Hands-on: Ingest and chunk documents into a vector database.

Module 6: Multi-Agent Workflow Setup in n8n

- Understand the limitations of complex system instructions which will result in the breakdown of a single AI agent.
- Add language auto-detection.
- Setup Multi-layer Fallback Flow: Database -> Web Search -> Escalation.
- Add out of scope handling when asked with non-sense questions.
- Hands-on: Build multi-layer fallback chain using out-of-scope handling.
- Run live demo: one high-confidence answer with references, one fallback response ("I don't know"), one out of scope question.

Module 7: Multi-Agent Workflow Setup in n8n

- Apply the principles of Mutually Exclusive, Collectively Exhaustive to design integrated workflows for automated contact registration and dynamic user information updates.
- Enhance the existing RAG bot to retrieve and reply in conjunction with the customer profile and details.
- Log each Q&A to Google Sheets for fine-tuning and improvement.
- Hands-on: Enhance RAG bot with user profile lookup and update flow.

Module 8: Final Capstone - Deploy & Demo your RAG Chatbot

- Demonstrate end-to-end execution of a RAG chatbot that automates market brief delivery, handles customer enquiries accurately, and escalates unresolved queries to human support.
- Debrief the importance of selecting the appropriate LLM model for the task at hand.

