



**Mysoftheaven (BD) Ltd.**

**A Complete IT Solution**

# **Technical Assessment Of AI Engineer**

**Date: 11-02-2026**

This assessment is designed to evaluate practical AI engineering, automation, and web application integration skills. Candidates should focus on clean implementation, system design, and clear explanations rather than UI polish.

**Final Submission Deadline:** Friday, 14 February 2026

Candidates may choose their preferred tech stack unless stated otherwise.

## **Assessment 1**

### **AI Agent Workflow Automation (n8n + LLM)**

#### **Objective**

Design and implement an AI-driven automation workflow for handling incoming leads, integrated with a simple web interface or API endpoint.

#### **Task**

Build a workflow that:

- Accepts a lead message via:
  - o Webhook, OR
  - o Simple web form / API endpoint
- Uses an LLM to:
  - o Classify intent (Sales / Support / Spam)
  - o Extract key fields (name, company, requirement)
- Stores structured data in a database or mock datastore
- Sends an AI-generated automated response
- Includes error handling and retry or fallback logic

#### **Requirements**

- Use **n8n (preferred)** or an equivalent workflow orchestration tool
- LLM via API or local model
- Include a basic backend or web endpoint (Node.js, Python, FastAPI, Express, etc.)

## Must Explain

- Prompt strategy
- How hallucinations are reduced
- Error-handling approach

## Submission

- n8n workflow export (JSON) ▪
- Short README (1–2 pages) ▪
- Demo video

## Assessment 2

### Mysoft Heaven (BD) Ltd.–Specific AI Chatbot (RAG) with Web Interface

## Objective

Create a web-based AI chatbot that answers questions strictly based on Mysoft Heaven (BD) Ltd.–provided documents and company information.

## Task

Using the **company profile and documents provided by Mysoft Heaven (BD) Ltd.** (e.g., company overview, services, products, certifications, platforms, or project descriptions):

- Build a **Retrieval-Augmented Generation (RAG)** pipeline
- Use a vector database (FAISS, Pinecone, Milvus, or Weaviate)
- Develop a simple web UI or API for chatbot interaction
- Ensure the chatbot:
  - o Responds only using the provided Mysoft Heaven (BD) Ltd. data
  - o Does not generate answers outside the supplied information
- Safely handle or reject unrelated or out-of-scope questions

## Must Explain

- Document chunking strategy
- Embedding model choice
- How irrelevant or unsupported queries are handled

- How the same architecture could support multiple companies in the future

## Bonus

- Conversation memory
- Confidence-based responses or fallback messaging

## Assessment 3

### AI Agent System Design for Web-Based SaaS Platform

## Objective

Demonstrate system architecture and product-level thinking for an AI-powered web application.

## Task

Design a system where companies can use a **web-based platform** to:

- Connect social media pages
- Receive AI-powered automated replies
- Auto-tag leads (hot / warm / cold)
- Sync data with a CRM system

## Deliverables

- System architecture diagram
- Explanation covering:
  - o AI agents and services involved
  - o Frontend–backend–AI data flow
  - o Authentication and authorization
  - o Data security and privacy
  - o Cost optimization strategies
  - o Failure scenarios and recovery handling

This assessment evaluates **end-to-end system thinking**, including web application integration.