CompTIA AI Help Desk Essentials

Overview

CompTIA AI Help Desk Essentials is a practical, scenario-based training designed to help IT support and service desk professionals effectively use generative AI tools in their daily support activities.

Participants will learn how AI can assist across the help-desk lifecycle—from ticket triage and incident diagnosis to user communication, ticket documentation, and knowledge-base creation. The training also emphasizes responsible and secure AI usage, including prompt quality, verification of AI-generated outputs, and protection of sensitive organizational information.

Duration

7 Hours

Learning Outcomes

By the end of the training, participants will be able to:

- Apply generative AI effectively in help-desk operations by creating structured prompts and using AI assistants to support common IT service desk tasks.
- Use AI to triage and troubleshoot IT incidents by summarizing tickets, identifying impact and urgency, generating clarifying questions, and analyzing symptoms, logs, error messages, and configurations.
- Improve support communication and documentation by using AI to draft user responses, ticket updates, resolution notes, knowledge-base articles, and self-service guides.
- Apply responsible and secure AI practices by identifying AI-generated inaccuracies, verifying outputs, protecting sensitive information, and maintaining human oversight when using AI for IT support.

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Course Objectives

The course aims to enable participants to:

- Introduce participants to practical applications of generative AI within IT help-desk and service-desk environments.
- Develop participants' ability to create effective AI prompts using appropriate task, context, role, constraints, and expected-output requirements.
- Enable participants to integrate AI into common help-desk workflows, including ticket triage, incident diagnosis, troubleshooting, communication, documentation, and knowledge management.
- Develop safe and responsible AI practices by teaching participants to verify AI outputs, recognize potential risks, and comply with organizational security and AI-use policies.

Target Audience

This course is suitable for:

- Help Desk Technicians
- Service Desk Analysts
- IT Support Specialists
- Technical Support Engineers
- Desktop Support Professionals
- IT Administrators
- Service Desk Managers / Team Leaders
- Incident Management personnel

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OUTLINE

Module	Topic Coverage
Module 1 — Course Kickoff & AI Fundamentals	• Introduction to AI in IT support • How generative AI chatbots can support help-desk operations • Common AI use cases in service desk environments • Benefits and limitations of AI-assisted support • Human-in-the-loop support • Introduction to AI-assisted help-desk workflows • Demonstration: Using an AI chatbot for a basic support request

Module 2 — Prompting & Responsible AI for Help Desk	• Fundamentals of effective AI prompting
	• Structuring prompts for IT support
	• Defining:
	  ○ Task
	  ○ Context
	  ○ Role/persona
	  ○ Constraints
	  ○ Expected output
	  ○ Verification requirements
	• Iterative prompting and prompt refinement
	• Using contextual files and support information
	• Common AI errors and hallucinations
	• Verifying AI-generated information
	• Sensitive, confidential and proprietary information
	• Responsible and secure AI usage in IT environments

Module 3 — AI-Powered Ticket Triage & Prioritization	• Summarizing incoming support tickets
	• Extracting key information from tickets
	• Identifying:
	  ○ Business/user impact
	  ○ Urgency
	  ○ Affected systems
	  ○ Symptoms
	  ○ Missing information
	• Generating clarifying questions
	• Classifying and prioritizing tickets
	• Routing tickets to appropriate support teams
	• Creating concise problem statements

Module 4 — Incident Diagnosis & Troubleshooting with AI	• Using AI to analyze incident descriptions
	• Identifying symptoms and possible causes
	• Analysing:
	  ○ Error messages
	  ○ System logs
	  ○ Configuration information
	  ○ Multiple incident reports
	• Identifying patterns and anomalies

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	• Generating troubleshooting steps • Creating troubleshooting checklists • Creating decision trees and troubleshooting paths • Using vendor documentation with AI • Evaluating AI-generated troubleshooting recommendations • Identifying when human escalation is required

Module 5 — AI-Assisted Communication & Ticket Closure	• Drafting professional user-facing responses
	• Adjusting communication based on:
	  ○ Technical knowledge
	  ○ User role
	  ○ Tone
	  ○ Complexity
	• Converting technical explanations into user-friendly instructions
	• Summarizing support conversations
	• Creating ticket updates
	• Creating resolution notes
	• Documenting troubleshooting activities
	• Generating consistent ticket closure documentation

Module 6 — Creating Reusable AI-Generated Support Content	• Converting resolved tickets into knowledge-base articles
	• Creating self-service guides
	• Creating technical support scripts
	• Creating step-by-step instructions
	• Developing troubleshooting checklists
	• Creating quick-reference guides
	• Creating support content for common requests such as:
	  ○ Password reset
	  ○ MFA enrollment
	  ○ Account unlock
	  ○ VPN troubleshooting
	  ○ Application access
	• Reviewing and validating AI-generated documentation