MERCURY

Business Automation Using Artificial Intelligence

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Business Automation Using Artificial Intelligence

Introduction

The Business Automation Using Artificial Intelligence course examines how organizations can use artificial intelligence to automate repetitive, data-driven, and decision-support activities. It establishes a foundation for understanding business process automation, intelligent workflows, and AI-enabled operational improvement. Participants explore how machine learning, natural language processing, generative AI, and AI agents can support business functions and improve process performance. The program addresses process analysis, automation opportunities, workflow design, data requirements, governance, risk, and performance measurement. It considers practical applications across administration, finance, human resources, customer service, marketing, and operations while maintaining a strong focus on responsible AI adoption. Participants learn how to evaluate, design, govern, and continuously improve AI-powered business automation initiatives.

Targeted Groups

This Business Automation Using Artificial Intelligence training targets professionals seeking knowledge and skills:

- Business managers seeking intelligent workflow automation and operational efficiency.
- Process owners responsible for improving repetitive business processes.
- Operations professionals evaluating AI-powered automation opportunities.
- HR specialists exploring automated employee and administrative processes.
- Finance professionals improving data-driven workflows and reporting.
- Customer service leaders seeking intelligent service process automation.
- Digital transformation professionals supporting AI adoption initiatives.

Course Objectives

Participants will achieve the following objectives by completing the Business Automation Using Artificial Intelligence course:

- Explain core concepts of artificial intelligence and business process automation.
- Identify repetitive, rule-based, and data-intensive processes suitable for automation.
- Analyze workflows, dependencies, inputs, outputs, and process bottlenecks.
- Evaluate AI automation opportunities against business priorities and expected value.
- Distinguish between traditional automation, intelligent automation, and AI agents.
- Examine machine learning, natural language processing, and generative AI applications.
- Define data requirements for reliable AI-powered business processes.
- Assess automation risks involving accuracy, privacy, security, bias, and compliance.
- Design conceptual AI-enabled workflows aligned with organizational requirements.
- Establish performance measures for productivity, quality, cost, speed, and service.
- Evaluate human oversight requirements for automated decisions and actions.
- Develop structured approaches to scale and continuously improve automation initiatives.

Targeted Competencies

Participants will gain the following competencies during the Business Automation Using Artificial

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Intelligence program:

- Analyze business processes and identify automation potential.
- Map workflows, decision points, inputs, and outputs.
- Evaluate AI technologies against process requirements.
- Interpret automation benefits, limitations, risks, and dependencies.
- Define suitable data and governance requirements.
- Design conceptual intelligent automation workflows.
- Assess AI-generated outputs for quality and reliability.
- Establish performance indicators for automated processes.
- Support responsible AI adoption and human oversight.
- Communicate automation opportunities using business-focused evidence.

Studying Scenarios

In this Business Automation Using Artificial Intelligence training, participants develop skills through the following scenarios:

- A finance team automates recurring invoice classification and routing.
- An HR department evaluates AI-assisted employee request handling.
- A customer service unit analyzes intelligent inquiry triage.
- An operations team maps workflow bottlenecks before automation.
- Managers assess governance controls for an AI-enabled approval process.
- Leaders compare automation outcomes using cost, speed, quality, and service measures.

Course Content

Unit 1: Foundations of AI-Enabled Business Automation

- Define business automation and intelligent automation.
- Explain AI in business processes.
- Compare RPA, intelligent automation, and AI agents.
- Explore machine learning and generative AI.
- Identify AI automation use cases.
- Assess automation readiness and business value.
- Link automation with digital transformation.
- Examine AI applications across business functions.

Unit 2: Business Process Analysis and Automation Opportunities

- Map workflows, tasks, and decisions.
- Identify repetitive processes for automation.
- Analyze bottlenecks, delays, and duplication.
- Evaluate automation feasibility and impact.
- Define inputs, outputs, rules, and exceptions.
- Prioritize opportunities by business value.
- Assess process maturity and data readiness.
- Identify processes requiring redesign.

Unit 3: Designing AI-Powered Workflows

- Explain AI workflow components.

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- Examine data and system interactions.
- Design AI-powered automated workflows.
- Explore generative AI business applications.
- Examine AI agents and system integration.
- Define human oversight and escalation.
- Examine prompts, context, and output validation.
- Consider CRM, ERP, HRIS, and API integration.

Unit 4: Governance, Risk, Data, and Responsible Automation

- Identify AI data quality requirements.
- Examine privacy and cybersecurity risks.
- Assess bias, hallucinations, and automation errors.
- Define AI governance responsibilities.
- Establish controls, audits, and monitoring.
- Apply responsible AI principles.
- Examine transparency and explainability.
- Establish risk-based oversight practices.

Unit 5: Measuring, Scaling, and Optimizing AI Automation

- Define automation performance indicators.
- Compare pre- and post-automation results.
- Analyze dashboards and exception trends.
- Identify continuous improvement opportunities.
- Evaluate automation scalability.
- Develop AI automation roadmaps.
- Assess financial and operational returns.
- Examine workforce adaptation and change management.

Final Insights & Key Takeaways

The course enables professionals to connect AI capabilities with structured process improvement, measurable operational outcomes, and responsible decision-making. It provides a foundation for evaluating, designing, governing, and scaling AI-powered automation across modern business functions.