THE BLUE WHALE
AI ACADEMY

UNDERSTANDING THE AI AGENTS ECOSYSTEM

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🕐 **Self Paced**   📄 **71 Lessons**   🧩 **8 Quizzes**

Fee: $ 199.00

Overview

AI agents are transforming the way we interact with technology. These autonomous software programs can process data, make decisions, and take action, all with minimal human intervention.

The global Agentic AI market was valued at $5.1 billion in 2024 and is projected to grow to over $47 billion by 2030, with a compound annual growth rate (CAGR) of 44%. Some sources even predict a market size of $120 billion by 2030, driven by sector-wide investments.

AI agents operate by perceiving their environment, storing relevant information, and executing tasks based on predefined objectives. They can function independently or under human supervision, striking a balance between automation and control.

Key Capabilities

1. Autonomy: Can act on their own or take guidance from users.

2. Memory & Learning: Store knowledge, adapt to preferences, and enhance personalization.

3. Environment Awareness: Process external data to make informed decisions.

4. Tool Integration: Access the internet, run code, and interact via APIs.

5. Collaboration: Work with other agents or humans for seamless operations.

Salient Features

AI agents enhance the productivity and efficiency of businesses with their robust foundation models, much like how rising water lifts all boats.

No industry will remain untouched by the advent of AI agents; their impact is predicted to be as profound as the rise of the internet itself.

With AI agents as the new application layer, expect a wave of innovation similar to the transformation brought by web apps.

Types & Architectures

AI agents come in various forms, from simple reflex agents to complex learning systems. They can operate as:

1. Single Agents – Acting as personal AI assistants.

2. Multi-Agent Systems – Collaborating with other agents.

3. Human-Machine Teams – Enhancing human decision-making.

The AI agents ecosystem

- Storage solutions
- Memory tools
- Agent Hosting & Serving
- Agent Frameworks

As AI agents continue to evolve, they will play an essential role in business automation, customer service, and intelligent decision-making.

Features

✓ This course will introduce the concept of AI agents and their applications in various industries.

✓ Each lesson will focus on the key capabilities of AI agents such as autonomy, memory, and tool integration.

✓ Each lesson will explore the types of AI agents, from single agents to multi-agent systems and human-machine teams.

✓ Each lesson will explain the importance of the AI agents ecosystem, including storage solutions, memory tools, and hosting platforms.

✓ Each lesson will showcase specific examples of vertical agents and how they impact industries like finance, legal, and business productivity.

✓ Each lesson will include practical insights on how to implement AI agents in business and automation workflows.

Curriculum

STORAGE

📄 Weaviate: Open-Source Vector Database	30 minutes
📄 Chroma: The AI-Native Open-Source Vector Database	30 minutes
📄 Supabase: Open-Source Backend as a Service	30 minutes
📄 Qdrant: High-Performance Vector Database and Search Engine	30 minutes
📄 Milvus: Open-Source Vector Database	30 minutes
📄 Neon – Lighting – Fast AI Storage, Engineered for Brilliance	30 minutes
📄 Pinecone: High-Performance Vector Database	30 minutes
🧩 **Quiz**	30 minutes 15 questions

MEMORY

📄 MemGPT: Enhancing Language Models with Advanced Memory Management	30 minutes
📄 LangMem: Long-Term Memory for Conversational AI	30 minutes
📄 Zep: Advanced AI-Powered Memory Management Platform	30 minutes
📄 Mem0: AI-Powered Smart Memory and Knowledge Management Platform	30 minutes
🧩 **Quiz**	30 minutes 11 questions

VERTICAL AGENTS

📄 Decagon: AI-Powered Financial Analysis Agent		30 minutes
📄 Cognition: AI Research Assistant for Data Synthesis		30 minutes
📄 11x: AI Agent for Business Productivity Enhancement		30 minutes
📄 Harvey: AI-Powered Legal Research and Contract Analysis		30 minutes
📄 Lindy: AI Executive Assistant for Professionals		30 minutes
📄 Sierra: AI-Powered Automation and Business Process Management Platform		30 minutes
📄 Replit: AI-Powered Cloud-Based Development Platform		30 minutes
📄 Please.AI: AI-Powered Text Generation and Content Editing Platform		30 minutes
📄 Dosu – Your AI-Powered Code Maintenance and Documentation Assistant		30 minutes
📄 Perplexity.AI: AI-Powered Search Engine		30 minutes
🧩 **Quiz**	30 minutes	31 questions

TOOL LIBRARIES / SANDBOXES

📄 E2B: AI-Powered Sandbox for Software Development & Testing		30 minutes
📄 Modal - The AI Lab in Your Hands.		30 minutes
📄 Composio: AI-Driven Workflow Automation & Tool Integration		30 minutes
📄 Exa: Web Search and Data Access Platform for AI		30 minutes
📄 BrowserBase - Code in the Clouds, Run in Seconds.		30 minutes
🧩 **Quiz**	30 minutes	5 questions

AGENT HOSTING & SERVING

📄 Letta: AI Agent Hosting & Management Platform	30 minutes
📄 LiveKit: AI-Powered Real-Time Audio & Video Infrastructure	30 minutes
📄 Amazon Bedrock: Serverless AI Model Deployment Platform	30 minutes

📄 Agents API: AI-Powered Agent Hosting & Execution	30 minutes
📄 Assistant API: AI-Powered Virtual Assistant Framework	30 minutes
📄 LangGraph: Low-Level Orchestration Framework for AI Agents	30 minutes
🧩 **Quiz**	30 minutes 20 questions

AGENT FRAMEWORKS

📄 DSPy: AI Model Training & Fine-Tuning Framework	30 minutes
📄 LangGraph: AI Workflow Orchestration for Complex Applications	30 minutes
📄 LlamaIndex: Data Indexing for Large Language Models (LLMs)	30 minutes
📄 Phidata: AI-Powered Data Pipeline Automation	30 minutes
📄 CrewAI: Advanced Orchestration Framework for Multiple AI Agents	30 minutes
📄 Auto-GPT: Open-Source Application for Autonomous AI Agents	30 minutes
📄 Semantic Kernel - Memory, Planning, and Execution in One AI Framework.	30 minutes
📄 AutogenAI - AI That Thinks, Links, and Syncs.	30 minutes
📄 Praison AI: AI-Powered Multi-Agent Collaboration Framework	30 minutes
📄 NVIDIA: AI Frameworks & High-Performance Computing for AI	30 minutes
📄 Mirascope: AI-Powered Autonomous Agent Framework	30 minutes
📄 Requesty: AI-Powered Workflow Automation & Request Processing	30 minutes
📄 Open-Swarm-Net: Decentralized AI Agent Communication Framework	30 minutes
📄 Restack: AI-Powered Data Processing & Workflow Automation	30 minutes
📄 Twilio: AI-Powered Communication APIs	30 minutes
📄 Farama: AI Reinforcement Learning Framework	30 minutes
📄 LobeHub: AI-Driven Workspace Automation Platform	30 minutes
📄 AWS Labs: AI Agent Framework & Development Tools	30 minutes
📄 Haystack: Open-Source NLP Framework for Search and QA	30 minutes
📄 Fetch: AI for Decentralized Autonomous Agents	30 minutes
🧩 **Quiz**	30 minutes 25 questions

MODEL SERVING

📄 DeepSeek: AI Model Serving & Optimization Platform	30 minutes	
📄 Gemini: Google's Multimodal AI Model	30 minutes	
📄 SGL: Scalable AI Model Deployment & Inference	30 minutes	
📄 Anthropic: AI Research & Responsible Model Development	30 minutes	
📄 Groq: High-Performance AI Acceleration for Enterprise Applications	30 minutes	
📄 vLLM: High-Performance AI Model Serving for Large-Scale Applications	30 minutes	
📄 Together AI: AI Acceleration Cloud	30 minutes	
📄 LM Studio - Turning AI models into Real- World Solutions.	30 minutes	
📄 Mistral AI: AI and Machine Learning Platform	30 minutes	
📄 OLLAMA: Local AI Model Deployment Platform	30 minutes	
📄 OpenAI - Open Possibilities, Evolve intelligence.	30 minutes	
📄 Fireworks AI: AI Model Optimization and Customization Platform	30 minutes	
🧩 **Quiz**	30 minutes	35 questions

OBSERVABILITY

📄 Arize: AI Observability & Model Monitoring	30 minutes	
📄 Weave: AI Model Debugging & Monitoring Framework	30 minutes	
📄 LangSmith: AI Testing & Observability Platform	30 minutes	
📄 AgentOps: A Platform for Reliable and Efficient AI Agents	30 minutes	
📄 Langfuse: Monitor and Optimize Your LLM Applications	30 minutes	
📄 Braintrust: AI-Powered Freelance Platform	30 minutes	
🧩 **Quiz**	30 minutes	10 questions

FAQs

What is an AI Agent?

An AI agent is a software program that perceives its environment, processes data, and autonomously takes action to achieve predefined goals.

How do AI agents differ from traditional automation?

Unlike standard automation, AI agents adapt to changing conditions, learn from experience, and make intelligent decisions rather than just executing predefined instructions.

What industries benefit from AI agents?

AI agents are transforming industries like finance, healthcare, customer service, legal research, and business productivity by automating tasks and improving decision-making.

How do AI agents interact with other systems?

AI agents integrate with APIs, databases, and software tools, enabling seamless workflow automation, data analysis, and task execution.

Are AI agents replacing human jobs?

Rather than replacing jobs, AI agents augment human capabilities, allowing professionals to focus on higher-value tasks while AI handles repetitive work.