

# AI Agents

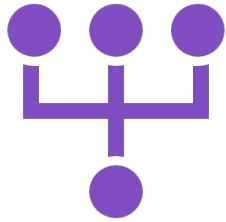
AN INTRODUCTION TO  
ARTIFICIALLY INTELLIGENT  
WORKFORCE AGENTS



# What are AI Agents?

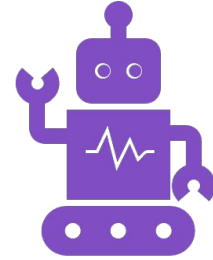
- **Definition:** AI agents are autonomous systems or programs designed to perform actual tasks on behalf of users or other systems by leveraging tools, memory, and reasoning. This differentiates them from traditional AI chat programs.
- **Capabilities:** AI agents can:
  - Interact with environments and users.
  - Execute actions autonomously or semi-autonomously.
  - Solve complex tasks, often using external tools and large language models (LLMs).

# How are They Different from Traditional Workflows?



## Traditional Workflows

- Follow predefined, static processes.
- Limited flexibility and adaptability.
- Require extensive human intervention for changes or exceptions.
- Can't interact with humans or adapt or learn.



## AI Agents

- Dynamic, adaptive, and capable of reasoning.
- Handle exceptions and unforeseen scenarios autonomously.
- Continuously improve via feedback and learning.
- Can interact with humans using human language and learning.

# What are the Typical Use Cases for AI Agents?

- Customer Support: Virtual assistants for queries, troubleshooting, and IT help desks.
- Project Management: Task allocation, progress tracking, auditing and reporting.
- Supply Chain Management: Inventory tracking, order processing, and error reduction.
- Healthcare: Treatment planning, patient support, and data management.
- Sales & Marketing: Lead generation, email drafts, and campaign optimization.
- Research and Analysis: Research a topic from the internet by studying various websites and present an analysis of the results.

## How an AI Agent Helps with Workflows Like Project Management



**Task Assignment:** Assigns tasks to team members based on expertise and workload.



**Progress Monitoring:** Tracks milestones and sends reminders.



**Auditing:** Ensure the processes followed faithfully track process templates, and audit for compliance, advise the users, as needed.

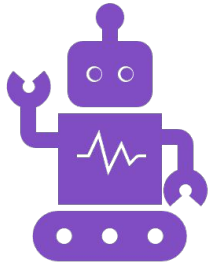


**Report Generation:** Automatically compiles and summarizes data for stakeholders.



**Integration:** Works seamlessly with tools like Microsoft Teams, PowerPoint, and SharePoint.

# How is an AI Agent Different from a Chatbot?



## Chatbots:

Focused on conversational responses.  
Reactive with limited memory and tool access.



## AI Agents:

Proactive and capable of planning.  
Utilize tools, memory, and reasoning to complete complex tasks.  
Can act autonomously to achieve user-defined goals.

# AI Agent Tools – Integration with Existing Systems

- Tools Concept:
  - AI agents require secure access to systems and data.
  - Examples include APIs, databases, and external applications.
- Benefits of Integration:
  - Real-time data access and updates.
  - Streamlined workflows across platforms.
  - Enhanced productivity by automating routine tasks.
- Integration Middleware
  - AI agent servers include custom middleware which can integrate existing systems and convert their input and outputs to the standard AI context used by agents for execution and memories.
  - This allows building Enterprise AI Agents which interact safely with existing business systems and applications.

# Business Benefits of Using AI Agents



## Increased Productivity:

Automates repetitive and time-consuming tasks.  
Enables employees to focus on strategic initiatives.



## Cost Efficiency:

Reduces operational costs by minimizing manual intervention.



## Improved Accuracy:

Decreases human errors in complex workflows.



## Scalability:

Handles increasing workloads without additional resources.



## Enhanced Decision-Making:

Provides data-driven insights and recommendations.



# Tekmonks Neuranet AI Agent Server

Tekmonks Neuranet AI Agent Server includes all the building blocks for AI agents:

Integration middleware to connect to existing business systems.

LLM framework for LLM model integration.

Reasoning framework for chain of thought and pre-planned reasoning needed by LLM agents.

AI databases to store data and provide it to the agents during execution.

Security framework for secure agent interactions.

And much more....

# Closing Thoughts



- AI agents represent a paradigm shift in how work gets done, and the speed and quality of work.
- By leveraging memory, tools, and reasoning, they empower organizations to:
  - Increase efficiency manifolds.
  - Enhance employee satisfaction by reducing repetitive tasks.
  - Achieve business goals and the quality of outcomes.
  - Focus human brainpower of more innovative aspects of the business, increasing revenues and growth.