

Day 6 – 23 June 2025 (Monday): Introduction to AI Concepts

On the sixth day of the internship, the focus shifted from Python programming to the **foundations of Artificial Intelligence (AI)**. The session began with a discussion on the **history of AI**, tracing its development from early rule-based systems to modern-day machine learning and generative AI. The mentor emphasized how AI has evolved to perform complex tasks that were once thought to require human intelligence, such as language understanding, image generation, and autonomous decision-making.

We explored the **different branches of AI**, including **Machine Learning (ML)**, **Deep Learning (DL)**, and **Generative AI**. Practical examples like **ChatGPT**, capable of generating human-like text, and **DALL·E**, which produces creative images from text prompts, were demonstrated. The mentor explained how these systems rely on **Large Language Models (LLMs)** that process massive amounts of text data to learn patterns, syntax, and semantics, enabling them to generate meaningful and coherent outputs.

The session also introduced the concept of **AI agents**, which are autonomous programs capable of performing tasks independently by leveraging LLMs and structured workflows. We learned how agents can be programmed to perform repetitive or complex tasks with minimal human intervention, making them highly valuable in automation and real-world applications.

Through discussions and Q&A sessions, we also understood the practical implications of AI in industries such as healthcare, finance, and customer service, and how creative applications of AI are transforming how humans interact with technology.

Learning

Developed a clear understanding of AI fundamentals, including its history, branches, and applications. Gained insight into how **Generative AI and AI agents** operate and form the foundation for intelligent, autonomous, and creative systems.

Outcome: