Types of AI Agents:

- **Simple Reflex Agents** – React to immediate percepts using condition-action rules.

- **Model-Based Reflex Agents** – Maintain an internal model to reason about the environment.

- **Learning Agents** – Adapt over time using feedback and experience.

Challenges in AI:

- **Machine Learning Limitations** – Struggles with high-level abstractions and learning from reading.

- **Lack of Subjective Consciousness** – AI lacks self-awareness, creativity, and true human-like intelligence.

- **Symbolic vs. Neural AI** – Bridging logic-based reasoning with deep learning remains a major hurdle.

Logic-Based AI & Reasoning:

- AI reasoning can be **monotonic** (fixed logic) or **nonmonotonic** (adaptive reasoning).

- **Key Techniques**: Common logic, knowledge representation, and **encoding down** for efficient AI reasoning.