

## What is AI?

**Artificial Intelligence (AI)** is a branch of computer science that focuses on creating machines or software that can **think, learn, and make decisions like humans**. AI systems can solve problems, recognize patterns, understand language, and make predictions.

## Difference between AI, ML, and DL

Feature	AI (Artificial Intelligence)	ML (Machine Learning)	DL (Deep Learning)
Meaning	Broad concept of smart machines	Subset of AI that learns from data	Subset of ML using neural networks
Goal	Mimic human intelligence	Learn patterns & improve automatically	Learn complex patterns using layers
Data dependency	May or may not need data	Needs data	Needs large amounts of data
Examples	Chatbots, rule-based systems	Spam detection, recommendations	Face recognition, voice assistants
Techniques	Rules, logic, ML, DL	Regression, classification	Neural networks, CNN, RNN

## 3 Real-Life Applications of AI

### 1. Virtual Assistants

- Examples: Siri, Alexa, Google Assistant
- Use AI to understand voice commands and respond intelligently.

### 2. Recommendation Systems

- Examples: Netflix, YouTube, Amazon
- Suggest movies, videos, or products based on user behavior.

### 3. Healthcare

- Disease detection, medical image analysis, chatbots for patients
- Helps doctors make faster and more accurate diagnoses.