Introduction to Artificial Intelligence

Artificial Intelligence (AI) is the field of computer science focused on building machines that can perform tasks that typically require human intelligence. These tasks include reasoning, learning, perception, language understanding, and decision-making.

AI systems can be divided into two main categories: Narrow AI and General AI.

Narrow AI is designed to perform a specific task. Examples include spam filters, recommendation systems, and voice assistants.

General AI refers to a system that can perform any intellectual task that a human can do. General AI does not yet exist.

Machine Learning is a subset of AI that allows systems to learn patterns from data instead of being explicitly programmed. Deep Learning is a subset of Machine Learning that uses neural networks with many layers.

Introduction to Databases

A database is an organized collection of structured information, or data, typically stored electronically in a computer system.

Databases are managed using Database Management Systems (DBMS). Popular database systems include MySQL, PostgreSQL, and MongoDB.

There are two primary types of databases:

Relational Databases store data in tables with rows and columns. They use Structured Query Language (SQL) for querying data.

NoSQL Databases are designed for flexible data models and horizontal scaling. They are often used in large-scale distributed systems.