**Artificial Intelligence (AI)**  
AI focuses on creating smart and intelligent machines. Think of tools like **Google Assistant** – a great example of AI in action!

**Machine Learning (ML)**  
ML is a technique used to implement AI. It enables machines to learn from data and improve over time without being explicitly programmed.

**Deep Learning**  
Deep Learning takes it a step further by using **Artificial Neural Networks** to learn complex patterns from large datasets.

**Types of Machine Learning (ML)**

1 **Supervised Learning**

* **What is it?** Learning with labeled data.
* **Types:**
  + **Classification:** Predicts discrete values (categories).  
    Example: Dog or Cat?
  + **Regression:** Predicts continuous numerical values.  
    Example: Temperature or Rainfall.

2 **Unsupervised Learning**

* **What is it?** Learning with unlabeled data.
* **Types:**
  + **Clustering:** Groups similar data points together.  
     Example: Network companies analyzing user groups to improve services.
  + **Association:** Finds meaningful relationships between data points.  
    Example: If a customer buys bread, they might also buy butter or milk.

3 **Reinforcement Learning**

* **What is it?** An intelligent agent learns by interacting with an environment to maximize rewards.  
  Example: Training a robot to walk or a system to play games like chess.