There are three main types of machine learning:

1. **Supervised Learning**:
   * **Definition**: In this type, the model learns from labeled data, which means the input comes with the correct output.
   * **Examples**: Spam detection, image classification, and predicting house prices.
   * **How it works**: The model tries to find patterns in the data, mapping inputs to the correct outputs (target values). The key is that the model knows what the "right answer" is while training.
2. **Unsupervised Learning**:
   * **Definition**: Here, the model works with unlabeled data. It doesn’t know the correct outputs and must find patterns or structure in the data on its own.
   * **Examples**: Customer segmentation, anomaly detection, and clustering algorithms like K-Means.
   * **How it works**: The algorithm looks for relationships and groupings within the data, often identifying similarities or patterns without explicit direction.
3. **Reinforcement Learning**:
   * **Definition**: In reinforcement learning, an agent interacts with an environment and learns by trial and error, receiving rewards or penalties based on its actions.
   * **Examples**: Game AI (like AlphaGo), self-driving cars, and robotics.
   * **How it works**: The agent takes actions in a particular state, receives feedback from the environment (reward or punishment), and uses that feedback to improve its future actions.