**What is ML (Machine Learning)?**

Machine Learning (ML) is a branch of artificial intelligence (AI) that enables computer systems to automatically learn and improve from experience without being explicitly programmed. In simple terms, ML allows computers to identify patterns in data, make decisions, and improve their performance on specific tasks over time. It uses algorithms to analyze data, learn from it, and make predictions or decisions based on the learned patterns.

**What is Supervised ML Algorithm?**

Supervised Machine Learning is a type of ML algorithm where the model is trained using labeled data. In this process, the input data is provided along with the correct output, and the algorithm learns to map the input to the desired output. The main goal is for the model to predict the output for new, unseen data accurately.

**Examples:**

* Predicting house prices based on area, location, and number of rooms
* Classifying emails as spam or not spam

Some common supervised ML algorithms include:

* Linear Regression
* Decision Trees
* Support Vector Machines (SVM)
* K-Nearest Neighbors (KNN)

**What is Regression and Classification?**

**Regression** and **Classification** are two types of supervised machine learning problems:

* **Regression:**  
  Regression is used when the target output is a continuous value. The algorithm predicts a real or continuous value based on input features.  
  **Example:** Predicting the temperature, salary, or stock prices.
* **Classification:**  
  Classification is used when the target output is categorical or discrete. The algorithm assigns input data into predefined classes or categories.  
  **Example:** Classifying an email as spam or not spam, or predicting whether a patient has a disease (Yes/No).