**Machine Learning (ML)** is a method where computers learn from existing data to make decisions or predictions, without being manually programmed for each specific task. A common example is a spam filter that learns to recognize unwanted emails by analyzing previously labeled examples as spam or not.

**Supervised Machine Learning** is a specific kind of ML that works with labeled data — meaning that each input comes with a known output. It’s similar to using flashcards to teach a child: each card shows an image along with its correct name, and over time, the child learns to match new images with the right names. In the same way, supervised learning finds patterns in labeled data to make predictions on unseen data.

There are two primary types of supervised learning tasks:

* **Regression** is used to predict continuous numerical values. For instance, estimating a house’s price based on features like its size, location, and number of bedrooms. Other examples include predicting future temperatures or sales figures.
* **Classification** involves predicting distinct categories or classes. For example, determining whether an email is spam or not, or identifying whether an image shows a dog or a cat. The result is a fixed label, such as “spam” or “not spam,” or “cat” versus “dog.”