# Week 1 Assessment

## What is Machine Learning (ML)?

Machine Learning is a subset of Artificial Intelligence that enables systems to learn and improve from experience without being explicitly programmed. It uses algorithms to find patterns in data and make decisions or predictions based on it.

## What is Supervised Machine Learning Algorithm?

Supervised Machine Learning is a type of ML where the algorithm is trained on a labeled dataset. That means each training example is paired with the correct output. The algorithm learns the relationship between input features and the output to predict future values.

## What is Regression and Classification?

- Regression is a supervised learning task used when the output variable is continuous. Example: Predicting house prices.  
- Classification is a supervised learning task used when the output variable is categorical. Example: Classifying emails as spam or not spam.