**Week 1 Assignment**

**What is machine learning?**

Machine learning is a subset of artificial intelligence that enables systems to learn from data, identify patterns, and make decisions with minimal human intervention. It involves algorithms that improve their performance on a task as they are exposed to more data over time.

**What is Supervised Machine Learning Algorithm?**

A supervised machine learning algorithm is a type of algorithm that learns from labeled training data, where the input data is paired with the correct output. The algorithm makes predictions based on this training and is evaluated on its ability to predict outcomes for new, unseen data.

**What is Regression & Classification?**

1. **Regression**: A type of supervised learning used to predict continuous numerical values.

* For example - predicting house prices based on features like size and location.

1. **Classification**: A type of supervised learning used to categorize data into discrete classes or labels.

* For example - classifying emails as "spam" or "not spam."