Types of Machine Learning

- 1. Supervised Machine Learning
  - a. Training on labeled data
  - b. Useful in classification and regression tasks
- 2. Unsupervisied Machine Learning
  - a. Training on unlabelled data
  - b. Useful in clustering and anomaly detection
- 3. Reinforcement Learning
  - a. Training an agent to make actions that maximize a reward
  - b. Useful in self-driving
- 4. Semisupervised Machine Learning
  - a. Where we have data which has both labelled and unlabelled data
  - b. We need to capture unlebelled data use unsupervised ML on it and get it clustered apply labels as per cluster and then add it back to complete data set
  - c. Now on complete dataset use Supervised ML to solve it.

Applications of Machine Learning

- 1. Healthcare : Disease diagnosis, Drug discovery, Personalised treatment recommendations.
- 2. Finance : Fraud detection, Credit risk assessment
- 3. Marketing : Analyzing customer behaviour and preferences