**Techniques of Machine Learning**

**Examples of Supervised Learning**

**Generic Examples:**

1. Student Performance

Predict which undergraduate students will do well on GATE exam given a variety of demographic/educational factors on a set of students who have taken GATE exam using ML algorithms.

1. Email Classification

Based on past information about spams, filtering out a new incoming email into Inbox (normal) or Junk folder (Spam)

1. Weather Prediction

Based on some prior knowledge (when its sunny, temperature is higher; when its cloudy, humidity is higher, etc.) weather apps predict the parameters for a given time.

1. Human Recognition

Biometric attendance or ATM etc systems where you train the machine after couple of inputs (of your biometric identity - be it thumb or iris or ear-lobe, etc.), machine can validate your future input and identify you.

1. Handwriting Recognition

Train your handwriting to OCR system and once trained, it will be able to convert your hand-writing images into text

**Examples of Unsupervised Learning**

**Generic Examples:**

1. Unsupervised learning explores a dataset and partitions out similar individuals; an example would be using k-means clustering to find subgroups of students taking the GATE exam.
2. A friend invites you to his party where you meet totally strangers. Now you will classify them using unsupervised learning (no prior knowledge) and this classification can be on the basis of gender, age group, dressing, educational qualification or whatever way you would like.
3. Let's suppose you have never seen a Cricket match before and by chance watch a video on internet, now you can classify players on the basis of different criterion: Players wearing same sort of kits are in one class, Players of one style are in one class (batsmen, bowler, fielders), or on the basis of playing hand (RH vs LH)