**Course: Advanced Bioinformatics**

**Module title: ML Applications**

**Module no. : 187**

**Machine Learning**

**Supervised Learning**

Prediction of future cases

Knowledge extraction

Compression

Outlier detection

**Un-supervised Learning**

Learning “what normally happens”

No output

**Clustering:** Grouping similar instances

**Applications**

Customer segmentation in CRM

Image compression

Bioinformatics

**Reinforcement** **Learning**

Policies: what actions should an agent take in a particular situation?

Utility estimation: how good is a state (🡪used by policy)

No supervised output

Delayed reward

Credit assignment problem (what was responsible for the outcome)

**Applications:**

Game playing

Robot in a maze

Multiple agents, partial observability, ...