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**MachineLearning Domain**

**PROJECT 1.2**

# Deep Learning

- It is a subset of Machine Learning, used to train artificial neural network.
- The word 'deep' shows the complex & depth of neural network architecture which helps to solve challenging problems.
- Suitable for pattern recognition, feature, extraction.

## **Applications:**

**Speech Recognition :** A large dataset of recording of various accents, speaking style, language is collected. After that data is converted in suitable file and given to training model. Then, training model is used to decode given audio input into transcribed text.

# Federal Learning

- It is used to train models across decentralised devices or servers keeping data localised & secure.
- Suited for healthcare, finance, scientific research where data safety is a major concern.

## **Applications :**

### **Credit Scoring & Risk Assessment :**

Banks & financial institutions train their models such that personal data of customer is taken as private where as CIBIL score & risk detail can share along different banks & branches.

# Reinforcement Learning

- It is a subfield of Machine Learning which focuses on making algorithm based on feedback from environment.
- Suitable for healthcare, industry automation, self driving car.

## **Applications :**

**Robotic Control :** It can train the robots to learn from experience & environment and make them better in work involving assembly, navigation.