Session Plan

Intro to Machine Learning and Linear Regression

Learning Objective

- To have a collaborative and interactive flipped classroom session to establish an understanding of the topics of the week through doubts clarification and hands on exercise.

Agenda of the session:

- Gauging learner's understanding on the topic of the week.
- Understanding the concepts clarity of the learners on
    - Machine learning, supervised and unsupervised learning, training and testing data.
    - Training and Testing data, overfitting and under fitting.
    - Linear Regression, simple regression and multiple regression.
    - Best fit analysis, r squared.
- Case Studies (Hands on) on the topics mentioned.
- Doubts solving, industry perspective and practices.
- Summary of the session's learning.

Structure of the Session:

Duration	Topic	Details
10 min	• **Gauge learner's understanding**	• Ask the learners in the group about the understanding of the week's topics. • Identify the important concepts majority of the group is facing doubts on.
20 min	• Concepts clarity	• Clarify the concepts on the doubts raised/identified.
60 min	• **Case Study** Hands on	• Use the case study provided to have a hands on session to demonstrate topics covered in the week. Explain the problem statement, attributes and the steps to follow. • Dataset used: LGD.csv
25 min	• **Extended Doubts Clearing** and **Industry perspective** discussion	• Use this time to clarify additional doubts. • Also, explain the industry practices as per your experience.
5 min	• Summarize the session	• Provide a summary of the session