Intro to Supervised Learning:

Linear Regression

**Learning Objectives 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**

|  |  |  |
| --- | --- | --- |
| **Time Distribution of 2 hours** | **Topic** | **Detail** |
| 10 mins | * **Gauge learner’s understanding** on supervised learning and linear regression. | * Supervised Learning, linear regression as a supervised learning technique * Linear regression, simple regression, multiple regression, residuals, fit of a regression model, r squared. |
| 20 mins | * Concepts clarity of the covered topics | * Above mentioned topics |
| 60 mins | * Case studies on Linear Regression | * LGD data |
| 25 mins | * Doubts clearance * Industry perspective on the mentioned topics * Buffer |  |
| 5 mins | * Summarize the session |  |