SESSION PLAN	
Session Name	Ensembling & Random Forest and Gradient Boosting Machines

Learning Outcomes

- Understand the intuition behind ensemble methods
- Know about bias-variance trade-off
- Know how different types of ensemble methods work
- Understand the intuition behind boosting methods
- Work with different types of boosting methods

Prerequisites for the Student

- Ensembling and Random Forest - Go through the concept and solve the tasks and assessments.
- Gradient Boosting Machines - Go through the concept and solve the tasks and assessments..

Student Activities

- Discuss with the Mentor what you have learned.
- Overview of Ensembling and Random Forest
    - Aggregation
    - Hyper-parameter tuning
- What's the Bias and variance tradeoff in different ensembling methods?
- Overview of Gradient Boosting Machines
    - Adaboost
    - Gradient Boosting
    - XGBoost
- How boosting is different from other ensemble methods?
- How does the Gradient Boosting Algorithm Works?
- Code Along
- Practice problems
- Questions and Discussion on doubts - AMA

Next Session

- Concept - Machine Learning: Clustering/ k-means
- Key topics to be highlighted - highlight where they would need to spend more time and importance w.r.t Data Science.
    - Unsupervised learning methods
    - Working of Clustering methods
    - K-Means and Hierarchical clustering