

## SESSION PLAN

### Session Name

Machine learning: Logistic Regression

### Learning Outcomes

- Understand when to use Logistic Regression
- Know the concepts of odds, odds ratio and sigmoid function
- Build a linear regression model using sklearn
- Understand the different evaluation metrics for classification tasks

### Prerequisites for the Student

- Machine learning: Logistic Regression - Go through the concept and solve the tasks and assessments.

### Student Activities

- Discuss with the Mentor what you have learned.
- Overview of Machine learning: Logistic Regression
  - Sigmoid
  - Cost Function
  - Evaluation Metrics
- Medium blog on Logistic Regression:  
<https://medium.com/data-science-group-iitr/logistic-regression-simplified-9b4efe801389>
- Why linear regression is not good for classification?
- Practice problem on Machine learning: Logistic Regression
  - Refer the GitHub repo for problems
- Quiz on Machine learning: Logistic Regression.
- Code Along
- Questions and Discussion on doubts - AMA

### Next Session

- Concept - Improving your model with Feature Selection
- Key topics to be highlighted - highlight where they would need to spend more time and importance w.r.t Data Science.
  - Feature Selection Importance
  - Different types of Feature Selection Methods
  - PCA