SESSION PLAN	
Session Name	Support Vector Machines

Learning Outcomes

- Understand the intuition behind support vectors
- Know what kernel is and its different types
- Know the implementation of different types of SVM Kernels

Prerequisites for the Student

- Support Vector Machines - Go through the concept and solve the tasks and assessments.

Student Activities

- Discuss with the Mentor what you have learned.
- Overview of Support Vector Machines
    - Soft Margin SVM
    - SVM Kernels
    - Multiclass SVM
- Blog on SVM: https://www.analyticsvidhya.com/blog/2017/09/understaing-support-vector-machine-example-code/
- Intuitive video on SVM:- https://www.youtube.com/watch?v=Y6RRHw9uN9o
- For which problems will you use L1 penalty, and for which - L2?
- Why Linear SVM works well for high dimensional problems?
- Why SVMs are often more accurate than logistic regression?
- Practice problem on Support Vector Machines
    - Refer the GitHub repo for problems
- Quiz on Support Vector Machines.
- Code Along
- Questions and Discussion on doubts - AMA

Next Session

- Concept - Introduction to NLP
- Key topics to be highlighted - highlight where they would need to spend more time and importance w.r.t Data Science.
    - NLP and its use cases
    - Tokenization
    - NLTK Library
    - Vectorization and vector space models
    - Stopwords
    - Stemming/ Lemmatization
    - TF-IDF
    - Naive Bayes Classifier