Week 2: (Total video duration= 2 hours. You will be required to spend 45 minutes/day along with practicing datasets and Quiz.)

Learning Outcomes from the Module:

After learning from this module, learners will be able to understand:

- Decision Trees and CART Technique
- Decision Trees and CART Technique Hands-on Application
- Model Performance Measure techniques
- Model Performance Measure Techniques Hands-on Application

Mentor Session Duration:	Faculty Name:	No. of videos:
2 hours	Mr. Gurumoorthy	04

Video No.	Video Name	Duration of the video	Topics Covered	Conceptual or Hands On
1	Decision Trees and CART	45:50	• Decision Tree model for a supervised learning algorithm can be used for both classification and continuous regression type problem. We train the model on the training set and validate it on the testing set. The parent node gets split into child nodes and pruning is done to avoid overgrowing of sub-trees/branches.	Conceptual
2	Decision Trees-CART_Hands-On	38:24	• Learn how to solve a Classification problem using the CART model.	Hands-On
3	Model performance Measure	30:09	• This helps to understand how good the model is we have trained using the dataset so that we have confidence on the performance of the model for future. It can be calculated using Confusion Matrix, Accuracy, Sensitivity and Precision.	Conceptual
4	Model performance Measure_Hands-on	13:42	• Building ROC curve for the development dataset and test/holdout dataset and then, build AUC curve for such dataset. Building Confusion matrix and a classification report for the datasets to evaluate the performance of the model.	Hands-On