Session Plan (Data Science Methodology) - (Offline)				
Topics	**Objectives**	**Methodology & ROPES model**	**Description**	**Duration**
Introduction	Overview of the course and session objectives. Quiz from the previous session	Slides 1-2	Introducing the topic "Data Science Methodology". Discuss the importance of thinking and working like a data scientist.	10 mins
Problem Formulation	Understand the process of defining problems and objectives.	Slides 3-4	Explain the importance of business understanding, defining the problem, setting goals, and engaging stakeholders.	20 mins
From Problem to Approach	Select an analytic approach based on the problem.	Slides 5-6	Discuss different analytic approaches (predictive, descriptive, classification) and align them with business goals.	25 mins
Data Requirements and Collection	Identify and collect necessary data.	Slide 7-8	Explain data requirements, sourcing, collection, and preparation. Discuss assessing data quality using descriptive statistics and visualization.	20 mins
Break	Rest and refresh.	—	A 20-minute break for participants to relax.	20 mins
Data Understanding and Preparation	Assess and prepare data for modeling.	Slides 9-10	Discuss constructing the dataset, data cleaning, preprocessing, and feature engineering.	20 mins

Modeling	Develop and refine models.	Slide 11-12	Describe different modeling techniques (predictive, descriptive) and the experimentation with various algorithms.	25 mins
Deployment and Feedback	Deploy models and use feedback for improvement.	13-14	Discuss deployment strategies, collecting feedback, and the importance of continuous improvement.	15 mins
The Importance of Storytelling	Highlight storytelling's role in data science.	Slide 15-16	Discuss elements of effective data storytelling, including objectives, relevant insights, and visual enhancements.	15 mins
Closure	Summarize session content and evaluate understanding.	Activity (Q&A)	Conduct an interactive Q&A or quiz to evaluate participants' understanding of the session topics. Summarize key takeaways and next steps.	10 mins