Session Plan (Tools for Data Science - Modules 1, 2, and 3) - (Online)				
Topics	**Objectives**	**Methodology & ROPES model**	**Description**	**Duration**
Introduction & Recap	Recap the previous sessions and introduce today's objectives	PPT Recap and Introduction	Instructor recaps the key points from the previous sessions and sets the context for exploring data science tools.	10 mins
Overview of Data Science Tools	Learn about key tools for managing, visualizing, and deploying data	PPT Presentation Module1−Slides3−6	Instructor explains various categories of data science tools, from data management to model deployment and monitoring.	15 mins
Open-Source Tools	Explore open-source tools for data science	PPT Presentation Module1−Slides8−11	The instructor covers open-source tools like MySQL, PostgreSQL, MongoDB, and visualization tools like Apache Superset.	15 mins
Cloud-Based Tools	Learn about cloud-based data science tools	PPT Presentation Module1−Slides15−17	Instructor explains cloud-based tools like Watson Studio, AWS DynamoDB, and IBM Db2, focusing on scalability and collaboration.	15 mins

Jupyter Notebooks	Understand how to use Jupyter Notebooks for interactive data science	PPT Presentation Module3−Slides4−9	The instructor demonstrates how to create, run, and manage Jupyter Notebooks, emphasizing interactive data exploration.	20 mins
Activity	Group activity: Exploring Jupyter Notebooks	Hands-on activity	Learners create a simple Jupyter Notebook, run code cells, and share outputs in small groups.	15 mins
Break				20 mins
RStudio & GitHub	Learn about RStudio and GitHub for version control	PPT Presentation Module3−Slides10−15	Instructor explains RStudio for data analysis and GitHub for code collaboration, focusing on version control and project management.	20 mins
APIs, Datasets, and Models	Explore APIs, datasets, and machine learning models	PPT Presentation Module2−Slides6−18	The instructor covers APIs, different types of datasets (e.g., open data), and introduces machine learning models and libraries.	20 mins

Machine Learning Models	Learn the types of machine learning models and how they work	PPT Presentation Module2−Slides16−18	Instructor explains supervised, unsupervised, and reinforcement learning models, including tools like TensorFlow and PyTorch.	15 mins
Activity	Q&A to reinforce learning	Interactive Q&A Module2−Slide19	Instructor engages participants by asking questions about the content to assess knowledge.	15 mins
Closure	Wrap up the session and summarize key takeaways	Activity	Instructor summarizes key concepts using interactive tools.	10 mins