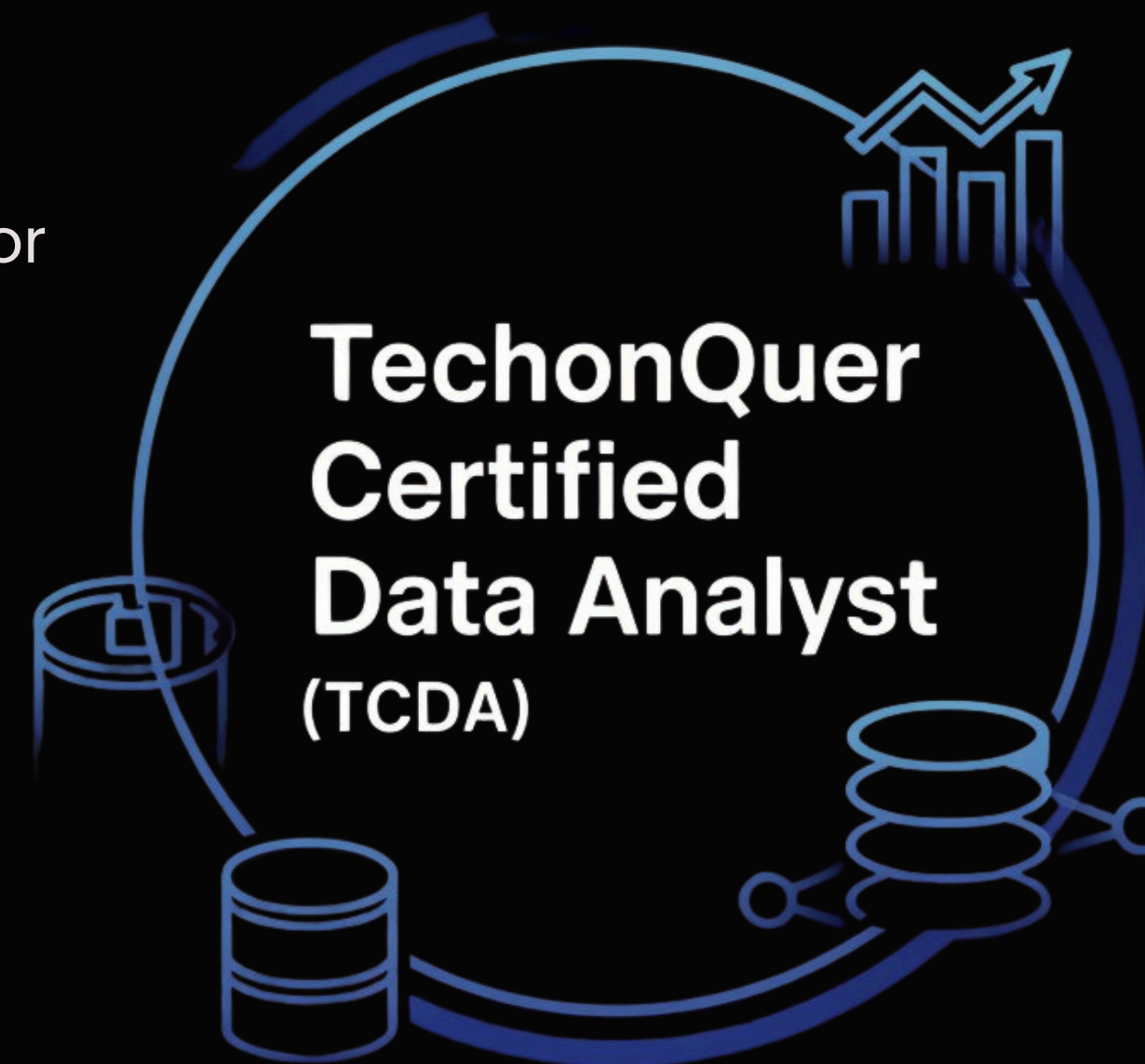# 3-Month Live Data Analyst Training

TechonQuer

Become Job Ready in Just 3 Months Live Training

starting 20th June !

- Course Price
- The course fee is just ₹4,000 INR, making it budget-friendly for students. You can conveniently pay in two installments:
    - First Installment: ₹3,000 at the time of enrollment
    - Second Installment: ₹1,000 after 20 days
- Start your learning journey without financial stress!
- Life time Recording Access after live class
- Class Schedule
    - Days: 3 classes per week (Friday Saturday , Sunday)
    - Duration: Each session will be 2 hours long
    - Mode: 100% Live & Online

TechonQuer Certified Data Analyst (TCDA)

Module 1: Introduction to Analytics

Introduction to Data Analytics

Analytics vs. Analysis

Roles and Responsibilities in Data Analytics

Types of Analysis & Analytics

The Analytics Lifecycle

Problem Definition, Data Collection, Data Cleaning and Preparation, Data Analysis, Interpretation of Results and Decision Making.

Models in Business Analytics

1

2

3

4

5

6

Module 2: Data Wrangling in Excel

Core Excel Skills

- Importance of Excel in Data Analytics

- Basic Excel Functionalities

- Searching and Filtering Data

- Excel Formulas

- Merging Data in Excel

- Data Entry Techniques, Data Validation Rules, and Handling Errors and Inconsistencies

- Data Cleaning Tools: Find and Replace, Text to Columns

Advanced Excel Functions

- Pivot Charts in Excel

- Cleaning Data with Text Functions

- VLOOKUP, HLOOKUP, INDEX-MATCH

- Logical Functions (IF, AND, OR, Nested IF Statements and Conditional Formatting)

- Statistical Functions (AVERAGEIFS, COUNTIFS, SUMIFS)

- Text Manipulation Functions (CONCATENATE, TEXTJOIN)
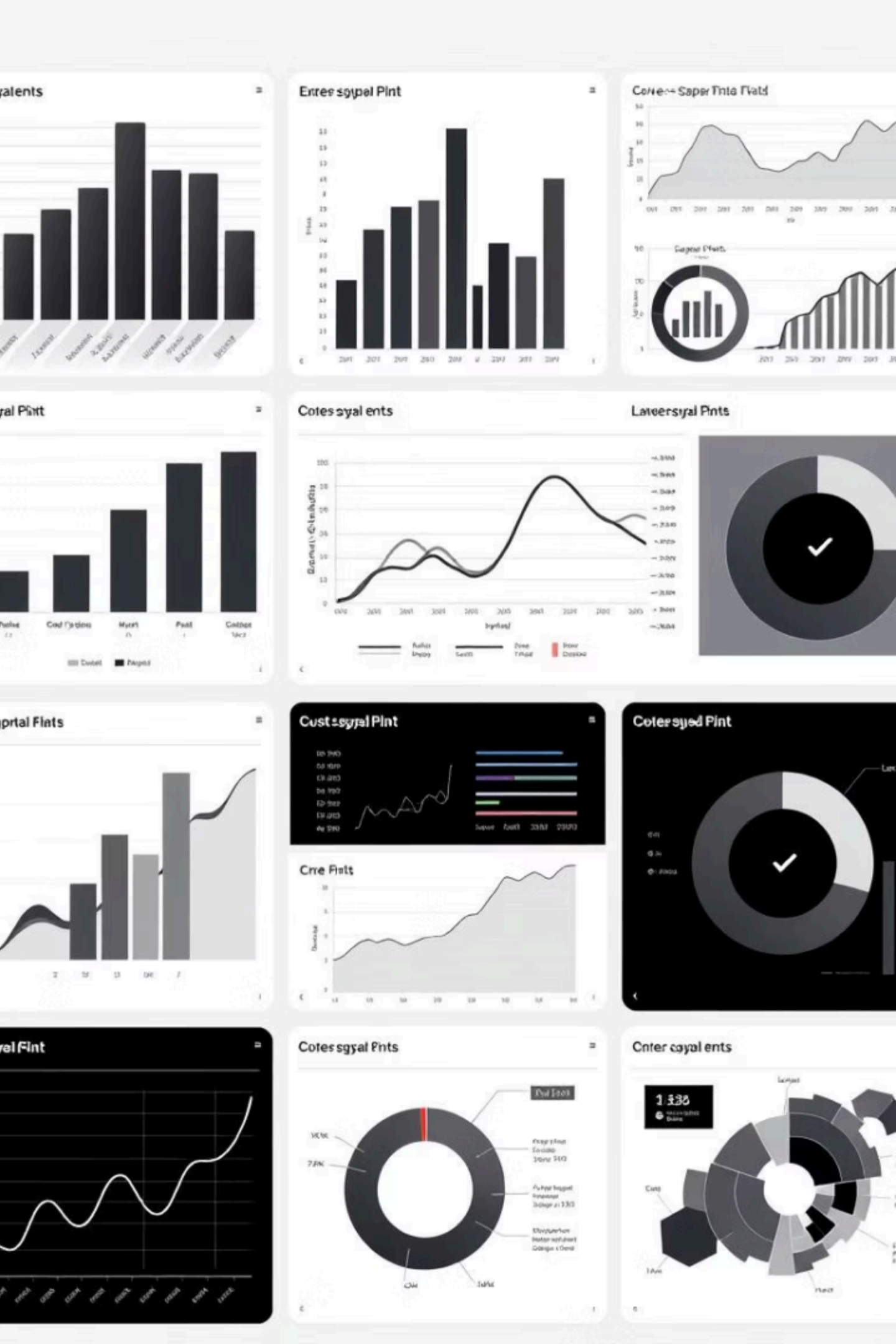
Module 3: Advanced & Data Visualization in Excel

Advanced Excel Features

- Advanced Excel Functions and Features
- Reading Complex JSON Files
- Styling Tabulation

Data Visualization Techniques

- Distribution of Data: Histogram, Box Plot
- Pie Chart, Donut Chart
- Stacked Bar Plot, Relative Stacked Bar Plot
- Stacked Area Plot, Scatter Plots. Line Plot
- Bar Plot, Continuous vs. Continuous Plot

AI Integration & Automation

- Combo Charts and Dual Axis Charts
- Area Plots and Conditional Formatting with Charts
- Introduction to Power View and Power Map
- Introduction to Macros and VBA
- Using ChatGPT to Generate Insights and Summaries from Excel Data
- AI-powered Excel Add-ins
- Automating tasks using ChatGPT

Module 4: Data Modeling & SQL Fundamentals

1 Database Introduction and Installation (MySQL)

2 Internal & External Data Sources

3 Structured vs. Unstructured Data

4 What is SQL, NoSQL and its Differences

5 SQL Basics

6 Data Modeling Concepts (ER Diagrams, Normalization)

7 SQL Commands (DDL, DML, DCL, TCL)

8 ACID Transactions

9 SQL Constraints and Operators

10 Clauses in SQL (WHERE, HAVING, GROUP BY, ORDER BY)

Module 5: Advanced SQL Techniques

Joins

Inner, Left, Right, Full, Equi, Non-Equi, Self

Functions

Mathematical Functions, Date/Time, General Functions and Conversion Functions, Numeric and String Functions

Advanced Queries

Conditional Expressions, Subqueries, Rank and Window Functions

Cloud Integration

Working with Google BigQuery

Module 6: Statistics Fundamentals

Core Statistical Concepts

- Descriptive Statistics: Central Tendency (Mean, Median, Mode) and Dispersion (Variance, Standard Deviation)
- Probability Concepts
- Statistical Inference
- Hypothesis Testing and A/B Testing

Advanced Statistical Techniques

- Learn statistical tests like T-Tests, ANOVA, Chi-Square
- Time Series Analysis
- Estimation Techniques: Point & Interval Estimation
- Finding Statistical Relationships Between Sets of Data

Module 7: Data Visualization: PowerBI & Tableau

Power BI

- Power BI Overview, Features and Components
- Importing Data into Power BI from Various Sources
- Data Transformation and Cleaning using Power Query Editor
- Modeling Data Relationships in Power BI
- Introduction to DAX Functions and Calculated Columns
- Advanced Visualization Techniques (Heat Maps, Tree Maps, Scatter Plots)
- Working with Time Intelligence Functions
- Power BI Publishing and sharing options
- Creating Custom Measures and KPIs in Power BI
- Dashboard Design and Data Storytelling
- Power BI with AI Insights

Tableau

- Tableau Overview, Features and Components
- Data Connectivity
- Data Preparation and Transformation in Tableau Prep Builder
- Building Basic and Advanced Visualizations
- Implementing Interactive Dashboards
- Introduction to Tableau Calculations
- Geospatial Analysis and Mapping
- Using Tableau's Forecasting Features
- Introduction to Tableau Server and Tableau Online
- Understanding the use of AI in Tableau
- AI analysis in Tableau using chart
- Geographic Data Visualization (using Tableau/Power BI)

Module 8: Python Basics & Pandas for Data Analysis

Python Basics — **1**

- IDE- Jupyter notebook / VSCode
- Print statement
- Variables
- String Basics
- Data Types, List ,Tuple, Set, Dictionary

2 — Python for Data Analysis

- Conditional Statements, For and While Loop
- Built-in-Functions-(Numbers and Math)
- User Defined Function
- Modules and Packages

2.5 Hours

Pandas Fundamentals — **3**

- DataFrames and Series: creating, manipulating, and accessing data
- Data cleaning: handling missing values, duplicates, and data types

4 — Advanced Pandas

- Data transformation: grouping, merging, concatenating, reshaping
- Advanced operations: pivot tables, apply functions, custom aggregations
- Time series data manipulation

Module 9: **Data Visualization (Essentials)**

1   Key plotting with Matplotlib, Seaborn

2   Basic interactive charts with Plotly
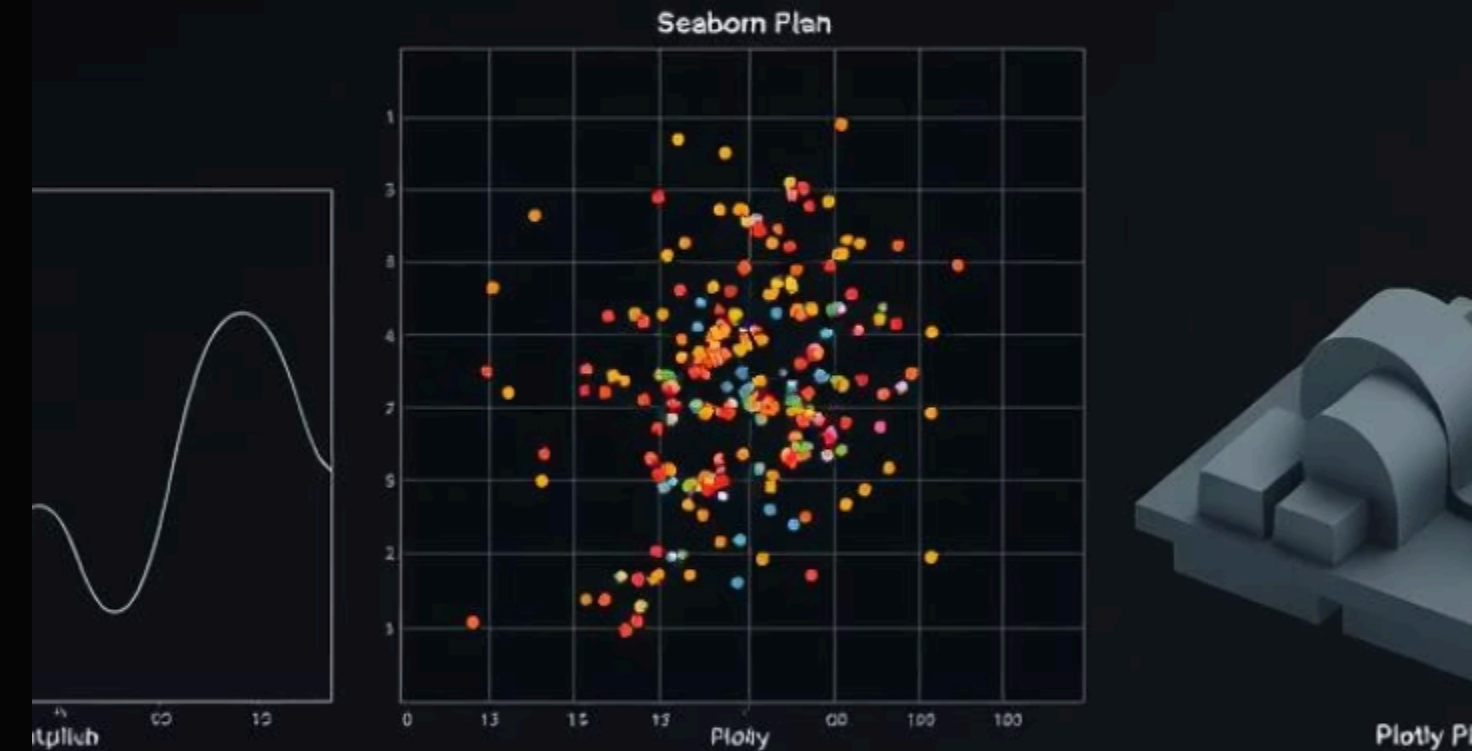
Module 10 : Data Visualization using Pyspark, Dash & Module

Data Visualization using Pyspark, Dash

- Introduction to PySpark for big data processing

- DataFrames in PySpark: reading, cleaning, transforming large datasets

- Using pyspark.sql and pyspark.ml for analytics

- Integrating PySpark with Pandas and visualization libraries

- Exporting and sampling data for visualization

Dash Framework

- Overview of Dash framework by Plotly

- Building a simple interactive dashboard with callbacks

- Layout and interactivity using Dash components

- Deploying Dash apps (local, cloud platforms)

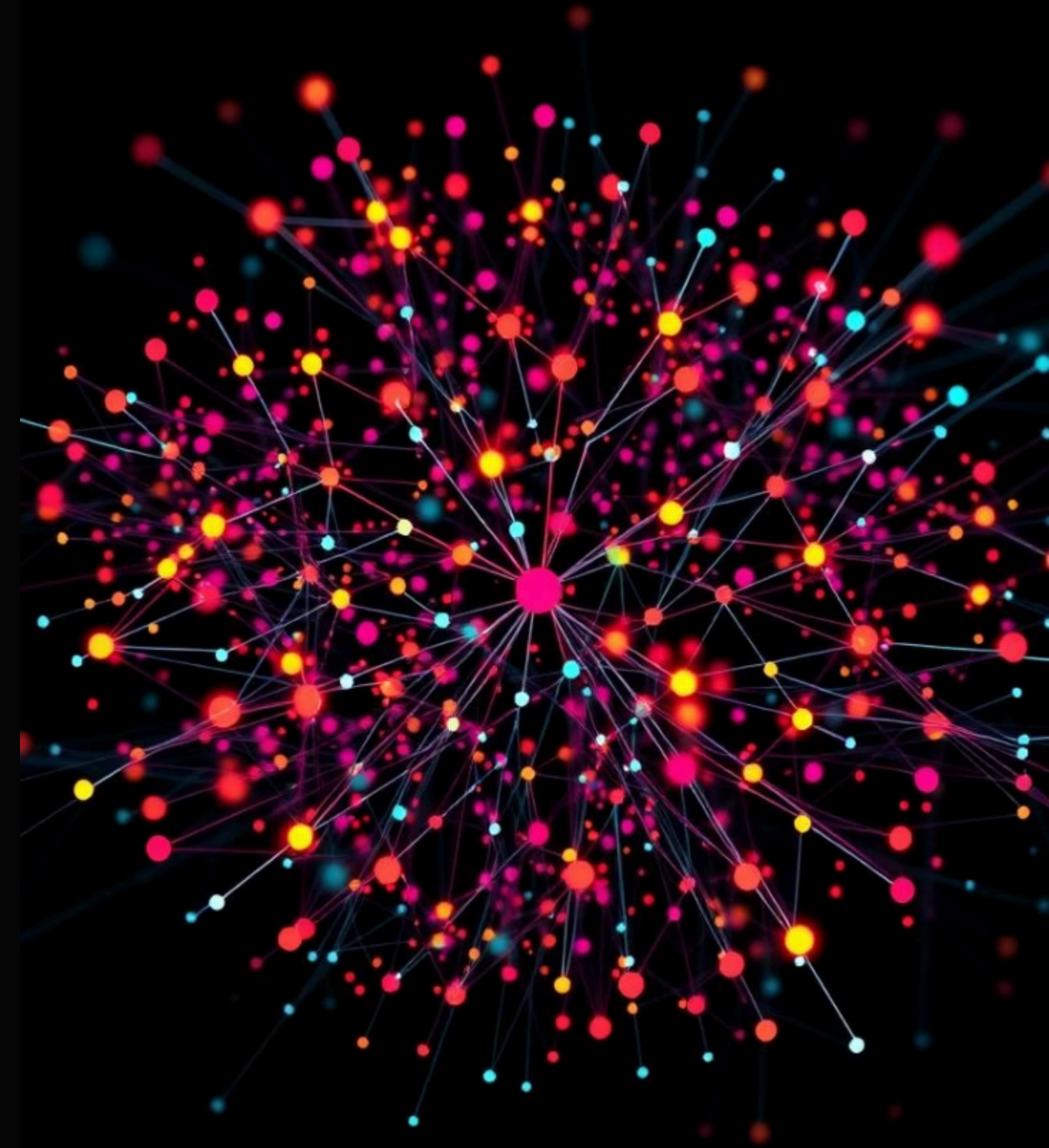- Case study: building a real-time analytics dashboard

Module 11 : **RFM Analysis for Marketing**

Module 12 : **Cluster Analysis**

1 Market Basket Analysis: Support, Confidence & Lift

2 K means clustering and Hierarchical Cluster Analysis

3 Elbow Plot

4 Case study : Customer segmentation

5 Case study : E-commerce Targeted Ads

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