Brainic Tech Presents

EXCEL QUANTUM-BATCH 2

BrainicTech
Innovation Intelligence

ADVANCED TECHNIQUES FOR THE DATA INNOVATOR

STARTING SESSION FROM 9 AUGUST

30 Hours Course	Saturday & Sunday	11:00 am to 2:00 pm	10 Sessions

ONLINE TRAINING

WHO SHOULD JOIN?

- Data Analysts and Business Professionals
- Accountants and Financial Experts
- Students and Educators
- Small Business Owners
- Freelancers and Entrepreneurs

Trainer

Raheel Rupani

AI Expert | AI Engineer
Generative AI Expert

FEES: RS 15,000

Register before 31st July
to enjoy a 15% early bird discount!

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EXCEL QUANTUM

ADVANCED TECHNIQUES FOR THE DATA INNOVATOR

BrainicTech
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Training Objective:

Advanced Data Cleaning and Management

Objective: Master advanced data cleaning, structuring, and management techniques to handle large datasets efficiently.

1. **Advanced Data Cleaning**
   - Remove duplicates, blanks, and outliers.
   - Techniques for handling messy datasets (special characters, spaces, inconsistent formats).
   - Case Study: Cleaning raw survey data with 100,000+ entries.

2. **Text-to-Columns and Flash Fill**
   - Splitting/merging data columns.
   - Using Flash Fill for automated patterns.
   - Case Study: Cleaning and organizing customer contact data.

3. **Data Validation Rules**
   - Creating custom validation rules for text, dates, numbers, and lists.
   - Building dependent (dynamic) drop-downs.
   - Case Study: Setting up input templates for employees and vendors.

4. **Advanced Sorting and Filtering**
   - Multi-level sorting and custom sorting logic.
   - Using advanced filters with formula-based criteria.
   - Case Study: Filtering top performers or overdue invoices from operational data.

5. **Dynamic Named Ranges and Tables**
   - Creating structured tables for analysis.
   - Using named ranges in formulas for dynamic reports.
   - Case Study: Managing stock/inventory with dynamic references.

6. **Working Across Multiple Sheets and Workbooks**
   - 3D formulas and consolidating data from multiple workbooks.
   - Linking workbooks with robust references.
   - Case Study: Merging department-wise monthly data into a central dashboard.

Advanced Formulas and Functions

Objective: Achieve mastery in Excel's complex functions to handle data analysis challenges.

7. **Logical Functions**
   - Advanced IF formulas (IFS, nested IFs, IF with AND/OR).
   - Combining logical functions with other formulas for dynamic solutions.
   - Case Study: Automating conditional outcomes for attendance records.

8. **Lookup and Reference Functions**
   - VLOOKUP, HLOOKUP, XLOOKUP, INDEX-MATCH.
   - Advanced techniques: two-way lookups, approximate matches, and searching across tables.
   - Case Study: Retrieving supplier details from a master database.

9. **Array Formulas and Dynamic Arrays (Excel 365)**
   - Using UNIQUE, SORT, FILTER, SEQUENCE for dynamic calculations.
   - Advanced SUMPRODUCT for multi-condition summing.
   - Case Study: Creating filterable datasets for real-time reporting.

10. **Text Functions**
    - LEN, TRIM, SUBSTITUTE, FIND, SEARCH, CONCATENATE, TEXTJOIN.
    - Formatting text outputs with TEXT functions.
    - Case Study: Cleaning and standardizing customer names and addresses.

11. **Date and Time Functions**
    - DATE, YEAR, MONTH, WEEKDAY, NETWORKDAYS, EOMONTH, WORKDAY.
    - Combining date/time functions with logical formulas.
    - Case Study: Calculating SLA timelines for a service company.

12. **Error Handling and Auditing Formulas**
    - Using IFERROR, ISERROR, and error tracing tools.
    - Building formulas that anticipate and manage errors.
    - Case Study: Creating robust sales reports free of errors.

13. **Advanced Mathematical Functions**
    - SUMIFS, COUNTIFS, AVERAGEIFS, LARGE, SMALL, RANK, PERCENTILE.
    - Case Study: Ranking products based on performance across regions.

Data Analysis with PivotTables and Power Query

Objective: Master tools for summarizing, consolidating, and analyzing large datasets efficiently

14. **PivotTables for Advanced Reporting**
    - Grouping, filtering, and customizing PivotTables.
    - Using calculated fields and aggregating data dynamically.
    - Case Study: Analyzing regional sales trends with PivotTables.

15. **PivotCharts for Visualization**
    - Creating interactive PivotCharts from PivotTables.
    - Linking slicers and timelines for dynamic reports.
    - Case Study: Visualizing project progress across departments.

16. **Introduction to Power Query**
    - Data import from multiple sources (CSV, Excel, databases).
    - Automating data cleaning, merging, and transformations.
    - Case Study: Cleaning and consolidating customer feedback from multiple systems.

17. **Advanced Power Query Techniques**
    - Appending and merging datasets.
    - Creating reusable queries for automation.
    - Case Study: Automating monthly report preparation for operations data.

Data Visualization and Advanced Dashboards

Objective: Build visually impactful and dynamic dashboards to present data insights.

18. Chart Mastery
- Advanced chart types: Waterfall, Funnel, Pareto, Gantt.
- Combo charts and secondary axes for comparative analysis.
- Case Study: Creating custom charts for KPI tracking.

19. Dynamic Dashboards
- Building dashboards with interactive slicers, timelines, and drop-downs.
- Combining charts, PivotTables, and formulas for dynamic reporting.
- Case Study: Building a dynamic dashboard for employee performance reviews.

20. Conditional Formatting for Visual Analysis
- Using formulas in conditional formatting for trend analysis.
- Heatmaps, icon sets, and data bars for visual insights.
- Case Study: Highlighting low stock levels in inventory reports.

21. Dashboard Optimization
- Organizing large dashboards for performance and usability.
- Case Study: Designing a multi-sheet dashboard for management reporting.

Handling Large Datasets and Performance Optimization

Objective: : Learn advanced techniques to work efficiently with massive datasets and optimize performance.

22. Working with Big Data in Excel
- Best practices for managing large datasets without lags.
- Efficient sorting, filtering, and formula performance tips.
- Case Study: Managing transaction data with 500,000+ rows.

23. Advanced Filters and Subtotals
- Extracting subsets of data based on criteria using advanced filters.
- Automating subtotal creation for reports.
- Case Study: Generating departmental summaries for 1,000+ employees.

24. Optimizing Formula Performance
- Avoiding volatile functions, streamlining calculations.
- Case Study: Speeding up a slow workbook for daily reporting.

25. Linking and Consolidating Workbooks
- Best practices for workbook linking and formula integrity.
- Case Study: Consolidating monthly expense reports into an annual summary.

KEY FEATURES OF THE COURSE
- Fully Practical Approach: Every session includes live datasets and challenges.
- Exhaustive Dataset Variety: HR data, sales data, inventory, surveys, and more.
- Real-World Scenarios: Practice solving problems faced by professionals daily.