

# Power Query Essentials for Excel Users

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## Brief Overview:

Power Query, you can streamline the process of extracting, cleaning, and transforming data from bank statements, saving you time and reducing the chances of manual errors.

Power Query can be used to extract and transform data from website tables, making it a powerful tool for data scraping and analysis.

The data is stored in separate folders, with each folder containing monthly reports in CSV format. You want to automate the process of importing, combining, and transforming this data.

Automate the daily import of sales and revenue data from various sources, and generate daily, weekly, or monthly dashboards for sales teams to monitor performance. Avoid repetitive and manual activities daily / Monthly / Yearly

You have multiple Excel files with similar data structures, such as monthly sales reports. You can merge all the files into a single table Using power query

Power query helps in combining data from multiple worksheets or tables within a single Excel file into a consolidated dataset with out copy paste

You have historical data stored in one source and real-time data from another source. Combine these datasets to create a comprehensive dataset

You have data sources that have the same structure (e.g., multiple worksheets in a single Excel file), and you want to union them into a single table, combining data from different parts of the same

Combine data from sources with varying column structures. Power Query can handle these differences and create a table with columns from all sources, filling in missing columns with null values thus by eliminating multiple look up functions

Use Power Query to identify and remove duplicate rows from your dataset. This ensures that your data is free from redundant entries and reduces the risk of data inaccuracies.

Identify missing or null values in your dataset and decide how to handle them

Clean and standardize text data by converting it to a consistent case (e.g., lowercase or uppercase) and removing leading or trailing spaces

Power Query allows you to set the correct data types for columns, such as converting text to numbers, dates, or other appropriate data types.

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## **Session content:**

- **Introduction to Power Query**

- What is Power Query?
- Benefits of Power Query
- Installation and Setup
- Exploring the Power Query interface
- Loading data into Power Query

### **Data Import and Connection**

- Importing data from various sources (Excel, CSV, databases, web, etc.)
- Connecting to data sources
- Navigating and viewing data source previews
- Combining and appending data

### **Data Transformation**

- Data cleansing techniques (removing duplicates, handling missing values)
- Text and date transformations
- Splitting and merging columns
- Conditional transformations
- Using custom functions

### **Advanced Data Transformations**

- Pivot and unpivot operations
- Grouping and aggregation
- Parameterized queries
- Handling hierarchical data
- Error handling and data quality checks

### **Data Loading and Refresh**

- Data loading options (to Excel, Power BI, etc.)
- Scheduling data refresh
- Troubleshooting common refresh issues
- Handling query dependencies

- Performance optimization

## **Real-world Applications and Case Studies**

- Practical examples and use cases
- Building dynamic reports with Power Query
- Automating data transformation workflows
- Integrating Power Query with Power BI

## **Best Practices and Optimization**

- Best practices for efficient query design
- Handling large datasets
- Monitoring and optimizing performance
- Version control and collaboration

## **Q&A and Final Projects**

- Open Q&A session
- Review of course material
- Hands-on practice with real datasets
- Project work and guidance
- Conclusion and certificates

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## **For Whom:**

- Data Analysts

Business Analysts

Financial Analysts

Reporting Specialists

Excel Users

Data Enthusiasts

Professionals in Analytics and Reporting roles

Anyone working with data for decision-making

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## Key Takeaways:

Power Query allows you to clean, reshape, and transform data from various sources into a format suitable for analysis and reporting.

It supports connecting to a wide range of data sources, including databases, spreadsheets, text files, web services, and more.

You can import data from multiple sources and combine them into a single dataset for analysis.

Power Query offers a user-friendly, visual interface that makes it easy to apply transformations, even for users without extensive coding experience

You can perform tasks like removing duplicates, filtering, splitting columns, changing data types, and handling missing values to clean your data.

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## Facilitator profile:

### Mr. Shiju

Mr. Shiju has trained over 2000 professionals, 5000+ students and teachers in USA, India & Middle east. He has conducted various training on data and Digital technologies in various associations , academic institutions and gives digital transformation consulting to SME's , he served as principal consultant at UNIFO solutions in supply chain domain , it head at Hitachi , business solutions specialists in IPP technology Australia, business consultant in Aurionpro

## Fee Details:

- **Fee Details**
- Member amount : Rs 0.00- (Including 18%GST)
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