


# EMPLOYEE DATA ANALYSIS USING EXCEL.

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PRINCE SHRI VENKATESHWARA ARTS AND  
SCIENCE COLLEGE



# employee performance analysis using excel

# Agenda

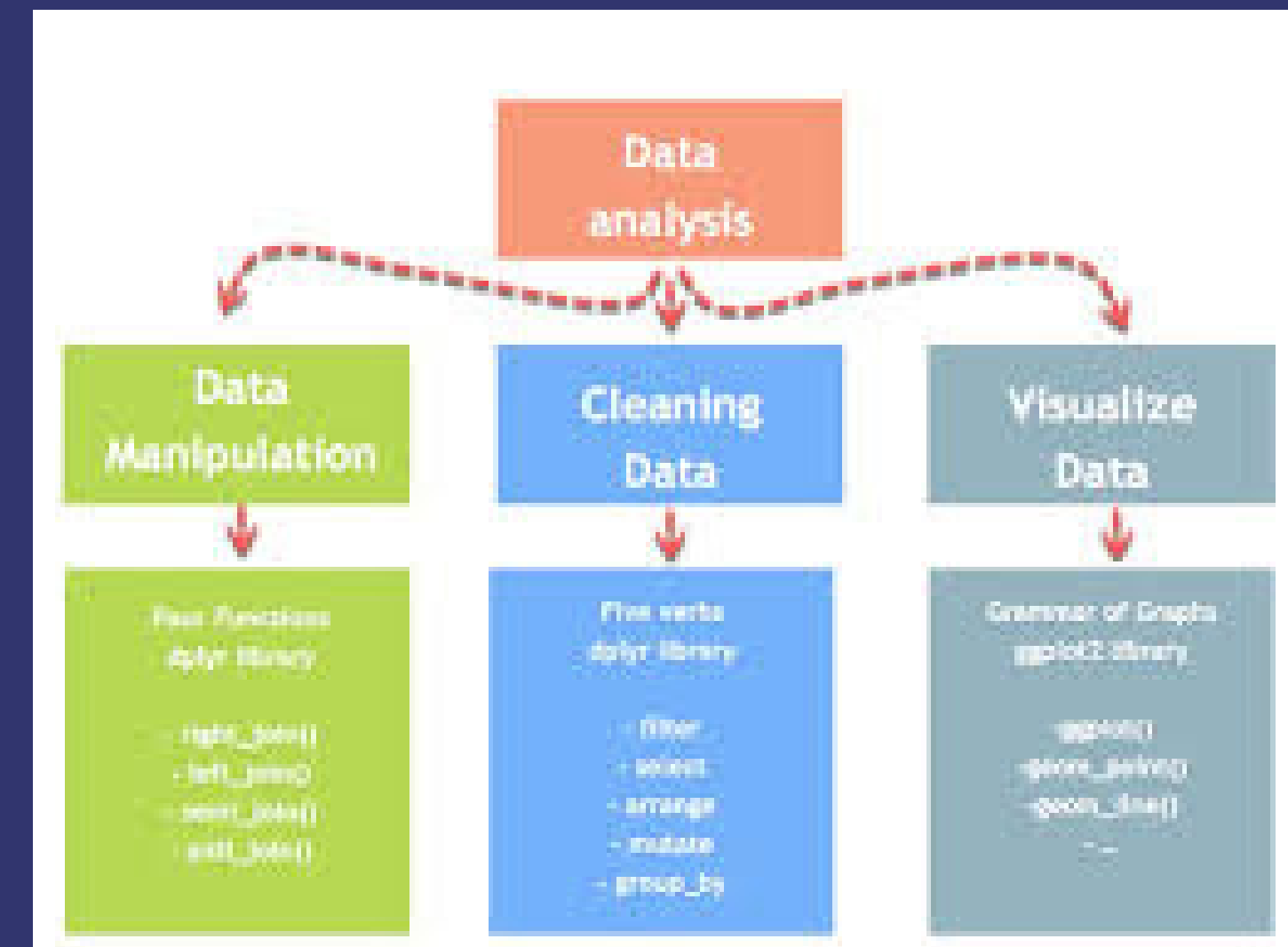
- Data manipulation techniques
- Conditional formatting
- Pivot table
- Functions and formulas
- Power query
- Charts and Graphs

# Data Manipulation Techniques

Data manipulation is the process of changing data to prepare it for analysis, presentation, or to extract insights. It can involve a range of operations, such as: filtering, sorting, aggregating, merging, and transforming.

Data manipulation is important for preparing and organizing data for analytical purposes. It can be used in a variety of ways, including:

- Machine learning: Data manipulation is a key part of feature engineering, which involves creating new features from existing data.
- Stock market forecasting: Data manipulation can help forecasters estimate future stock performance.





# Conditional Formatting



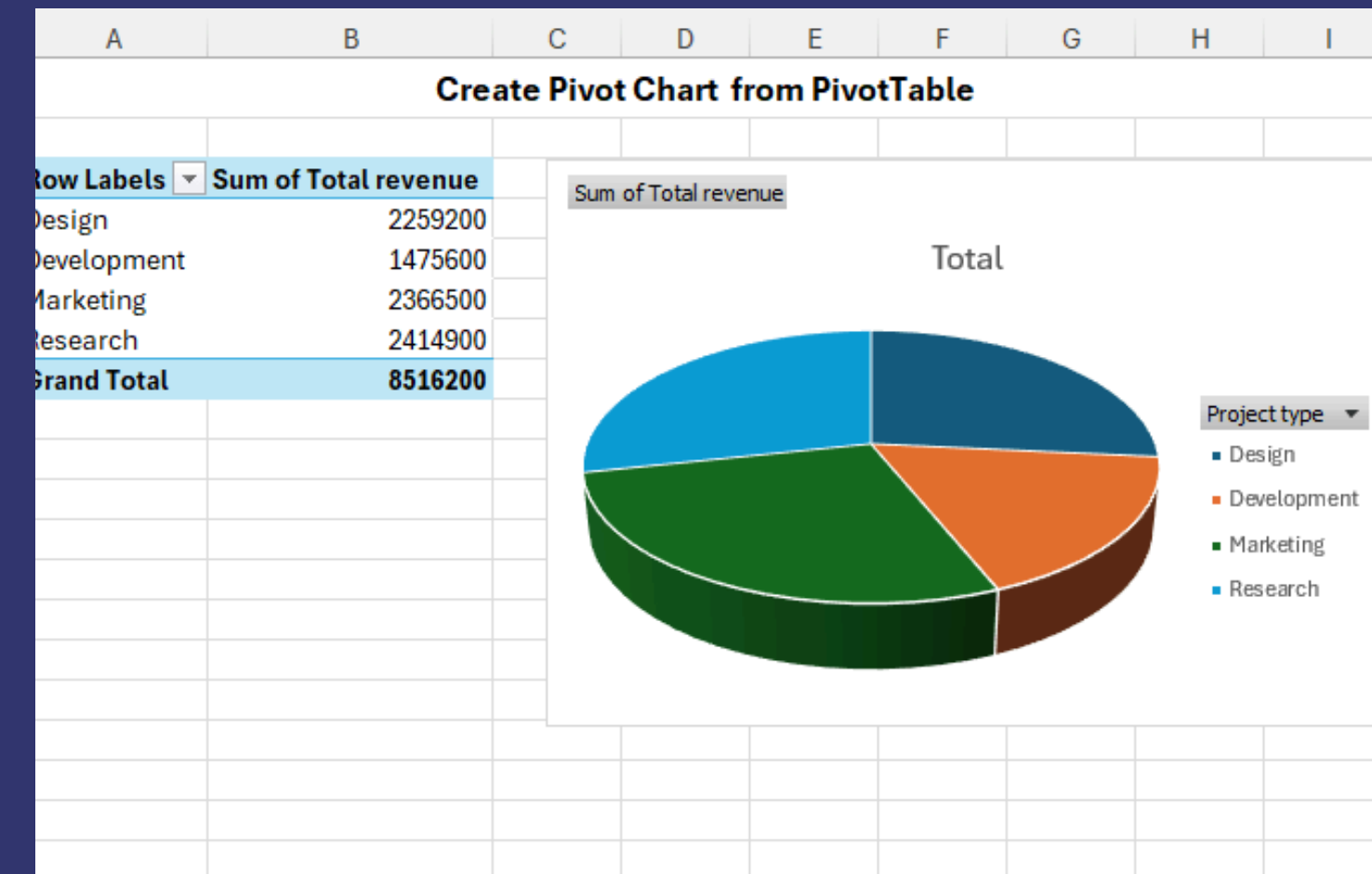
- Conditional formatting in Excel is a feature that highlights or formats cells based on certain criteria. You can use it to highlight cells that meet a condition, such as containing a certain value. This can help you identify trends and patterns in your data, and make it easier to see highs and lows
- In a similar fashion, you can create a conditional formatting rule to compare values of two cells. For example:  $=\$A2<\$B2$  - format cells or rows if a value in column A is less than the corresponding value in column B.  $=\$A2=\$B2$  - format cells or rows if values in columns A and B are the same.
- Cell value-based formatting (e.g., highlighting cells with values above a threshold)
- Formula-based formatting (e.g., highlighting duplicates)
- Rule-based formatting (e.g., top/bottom rules or icon sets).

	Survey Date	Engagemen	Satisfaction	Work-Life Balance Score
1001	10-10-2022	2	5	5
1002	03-08-2023	4	5	3
1003	03-01-2023	2	5	2
1004	30-07-2023	3	5	3
1005	19-06-2023	2	4	5
1006	03-05-2023	5	2	1
1007	18-07-2023	2	1	5
1008	21-06-2023	5	2	2
1009	06-06-2023	2	5	1
1010	15-09-2022	2	4	
1011	08-12-2022	1	2	3
1012	13-01-2023	3	5	4
1013	13-12-2022	5	4	3
1014	28-06-2023	4	4	1
1015	11-07-2023	1	1	3
1016	09-12-2022	2	3	2
1017	16-07-2023	4	1	3
1018	21-06-2023	4	1	4
1019	21-06-2023	1	3	5
1020	01-08-2023	2	1	2
1021	09-03-2023	5	1	4
1022	12-02-2023	1	4	4
1023	17-01-2023	4	4	3
1024	12-10-2022	5	3	1
1025	24-01-2023	4	1	4

# Pivot Table



- A pivot table in Excel is a tool that organizes and summarizes data in a table to help you identify patterns, trends, and comparisons. It's a powerful feature that can help you make sense of large data sets by presenting relevant information in a clear and concise way.
- A PivotTable is an interactive way to quickly summarize large amounts of data. You can use a PivotTable to analyze numerical data in detail, and answer unanticipated questions about your data. A PivotTable is especially designed for: Querying large amounts of data in many user-friendly ways.



# Functions and Formulas



- Formulas
- These are expressions that you create to perform calculations on a range of cells or a single cell. You can use cell references, operators, and constants in a formula. For example, the formula `=A1+A2+A3` adds the values in cells A1 through A3.

## Functions

- These are pre-defined formulas that Excel provides to simplify common calculations. They have specific purposes and syntax, and they perform calculations in a particular order based on specified values. For example, the function `=SUM(A1:A3)` adds the values in cells A1 through A3.

## Formulas vs Functions

### FORMULA

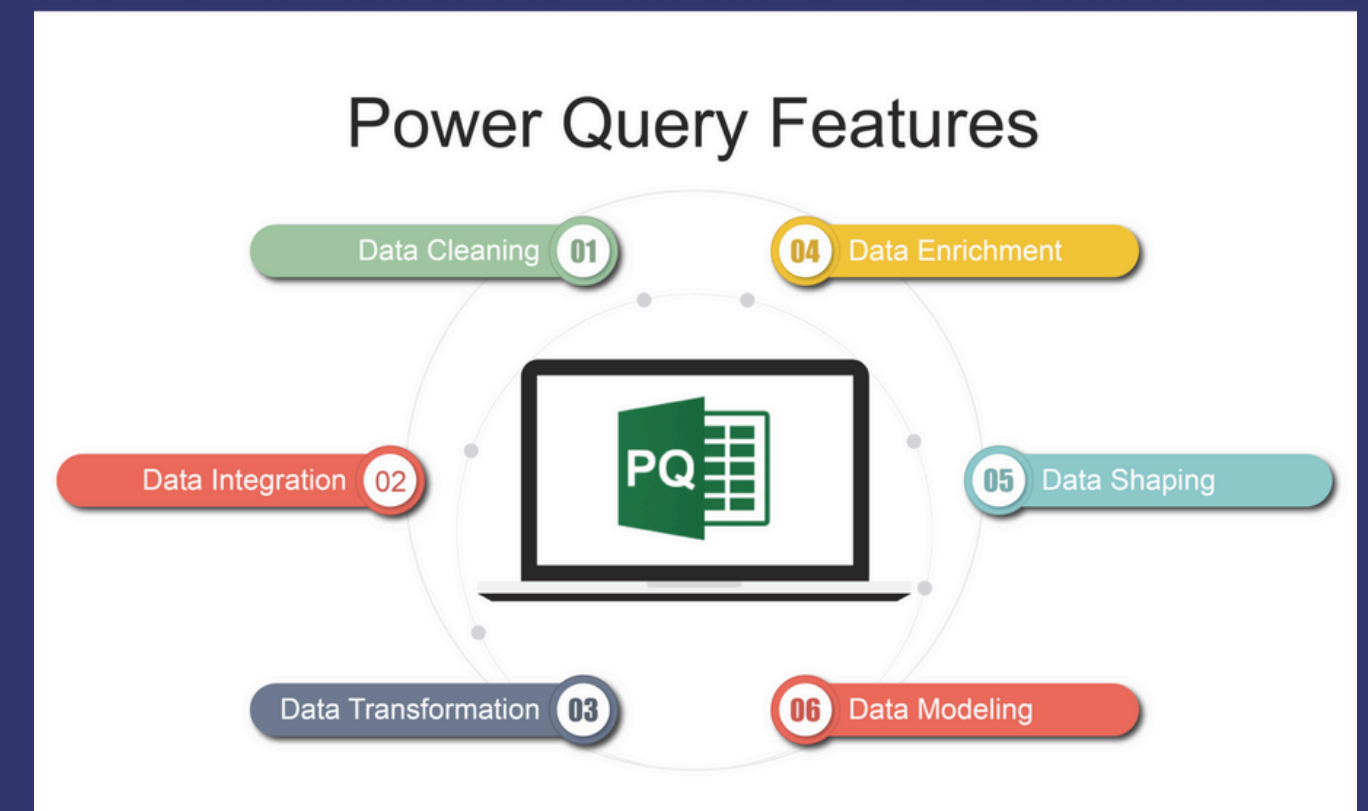
`=A1+A2+A3`

### FUNCTION

`=AVERAGE()`

# Power Query

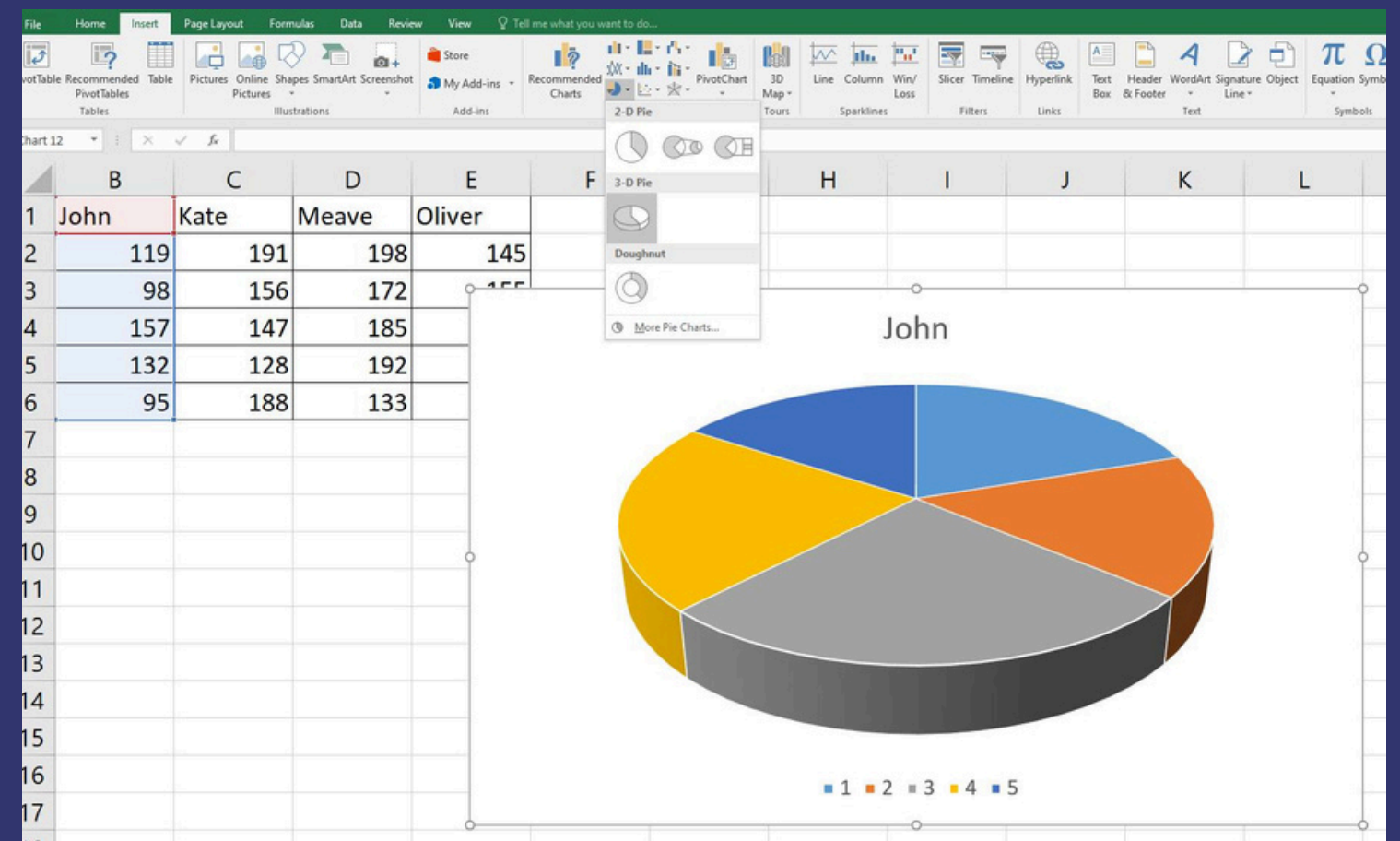
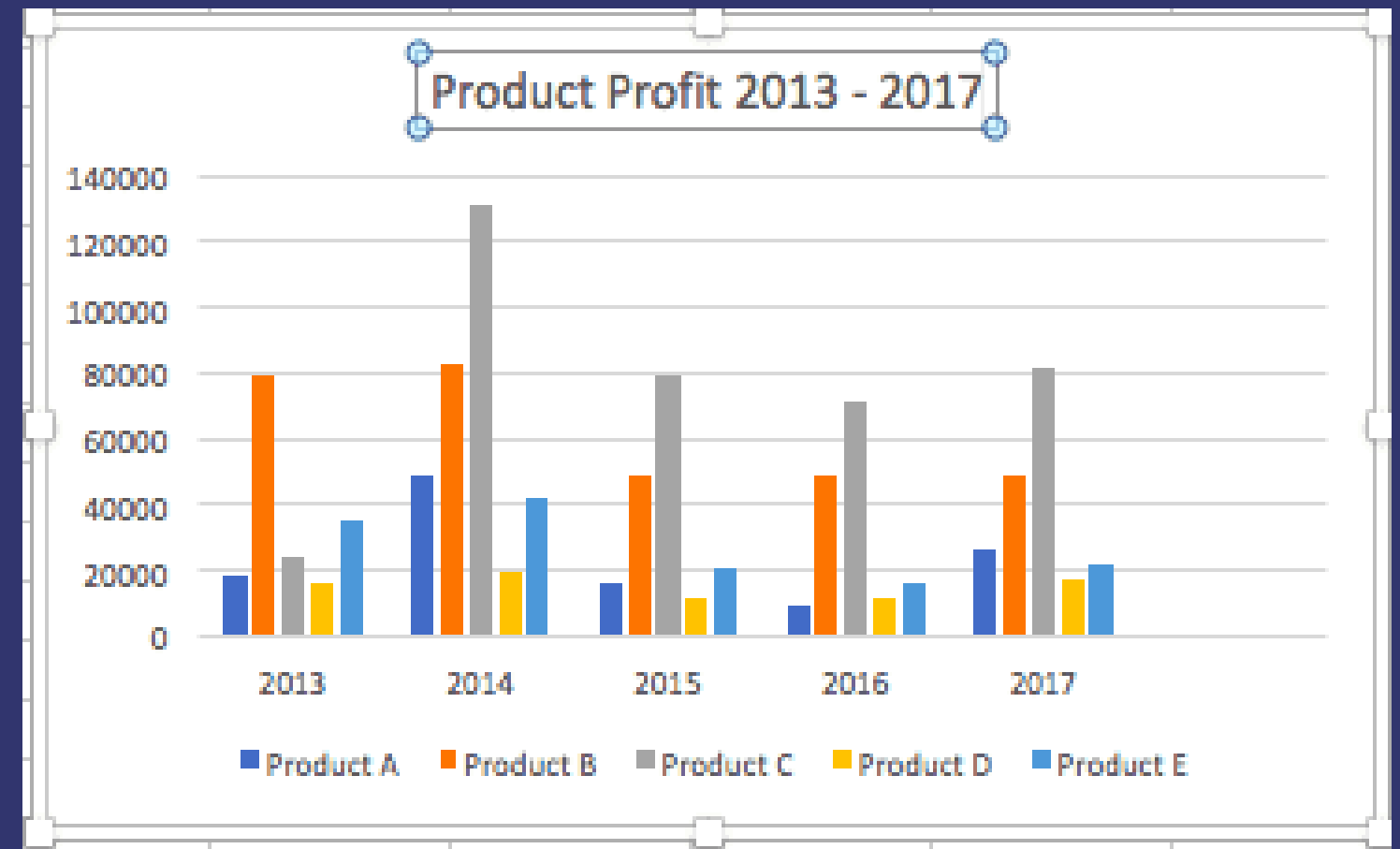
- Power Query is a tool in Excel that allows users to import, shape, and combine data sources for analysis. It's also known as Get & Transform in Excel
- Power Query is a technology embedded in Excel and other Microsoft products designed to help you shape your data. In Excel, select the Data tab on the ribbon to see the Get & Transform Data and Queries & Connections groups.
- Power Query is a tool used to manipulate data and is commonly used to transform data for business intelligence projects. High quality analysis relies on well-organized data that is free from errors and that draws data from a single source of truth.





# Charts and Graphs

- Charts and graphs in Excel are visual representations of data that help you understand and interpret information:
- Purpose
- Charts and graphs help you summarize and report large amounts of data, and make it easier to understand patterns and trends.



# Conclusion

Data analysis is a process for obtaining raw data, and subsequently converting it into information useful for decision-making by users. Data is collected and analyzed to answer questions, test hypotheses, or disprove theories.

An illustration of two people, a man and a woman, high-fiving. The man on the left has dark hair and is wearing a blue long-sleeved shirt. The woman on the right has dark hair in a ponytail and is wearing a light blue long-sleeved shirt, holding a white folder. They are both smiling. The background is dark blue with light blue abstract shapes, stars, and a large exclamation mark. The text "Thank you" is written in a yellow, serif font in the center.

Thank you