



# Power Query Tool

Value added Course  
Lecture 5 (Practical)

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# Power Query Tool

- Power Query is a business intelligence tool available in Excel that allows you to import data from many different sources and then clean, transform and reshape your data as needed.
- **Power Query** is available as an add-in to [download and install](#) for Excel 2010 and 2013 and will appear as a new tab in the ribbon labelled **Power Query**. In 2016 it was renamed to **Get & Transform** and appears in the **Data** tab without the need to install any add-in.
- Importing your data with **Power Query** is simple. Excel provides many common data connections that are accessible from the **Data** tab and can be found from the **Get Data** command.

# Conti..

- Get data from a **single file** such as an Excel workbook, Text or CSV file, XML and JSON files. You can also import multiple files from within a given folder.
- Get data from **various databases** such as SQL Server, Microsoft Access, Analysis Services, SQL Server Analysis Server, Oracle, IBM DB2, MySQL, PostgreSQL, Sybase, Teradata and SAP HANA databases.
- Get data from **Microsoft Azure**
- Get data from **online services** like SharePoint, Microsoft Exchange, Dynamics 365, Facebook and Salesforce.
- Get data from **other sources** like a table or range inside the current workbook, from the web, a Microsoft Query, Hadoop, OData feed, ODBC and OLEDB.
- We can **merge two queries together** similar to joining two queries in SQL.
- We can **append a query to another query** similar to a union of two queries in SQL.
- **Note:** The available data connection options will depend on your version of Excel.

DATA TRANSPOSE.xlsx - Excel

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Clipboard Font Alignment Number Styles Cells Editing

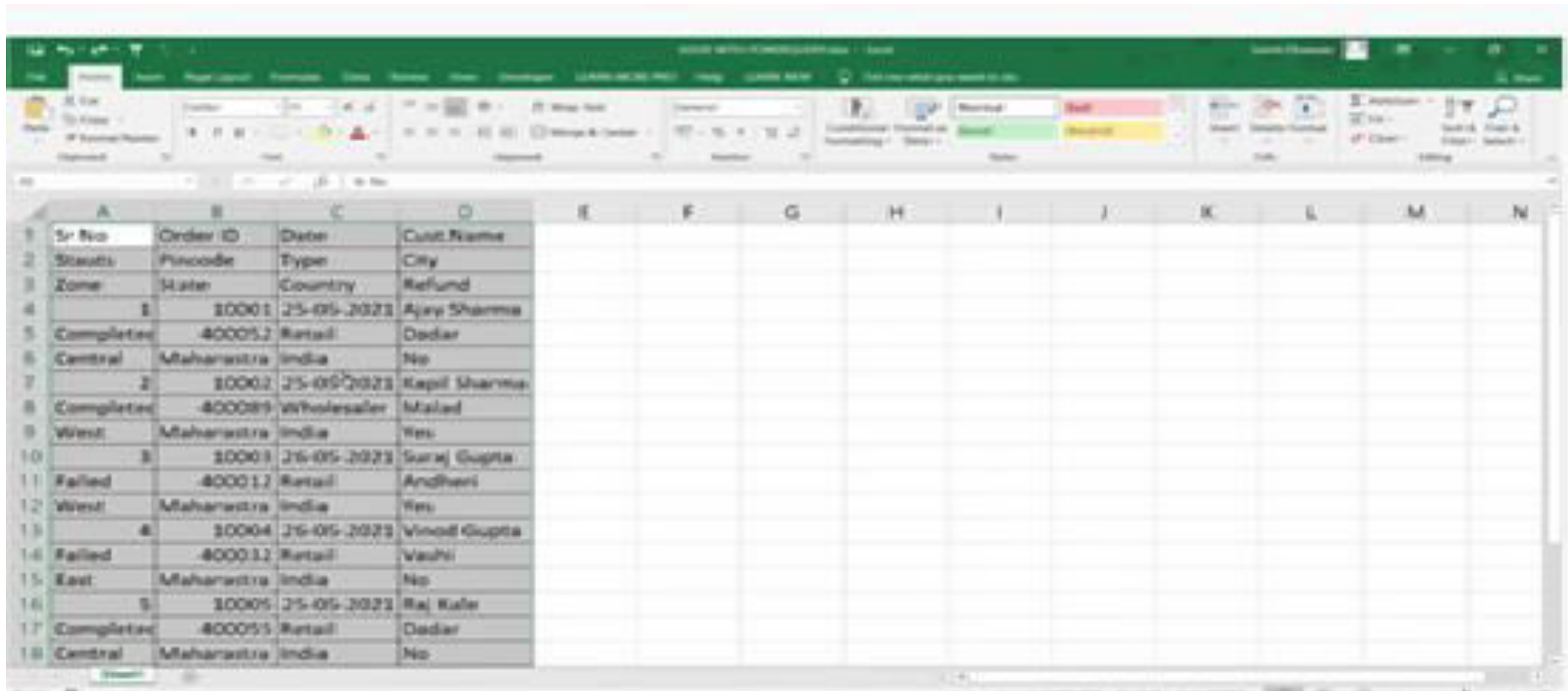
USING EXCEL FORMULA												
Sr No	Order ID	Date	Cust.Name	Stauts	Pincode	Type	City	Zone	State	Country		
1	10001	25-05-2021	Ajay Sharma	Completed	400052	Retail	Dadar	Central	Maharastra	India		
2	10002	25-05-2021	Kapil Sharma	Completed	400089	Wholesaler	Malad	West	Maharastra	India		
3	10003	26-05-2021	Suraj Gupta	Failed	400012	Retail	Andheri	West	Maharastra	India		
4	10004	26-05-2021	Vinod Gupta	Failed	400032	Retail	Vashi	East	Maharastra	India		
5	10005	25-05-2021	Raj Kale	Completed	400055	Retail	Dadar	Central	Maharastra	India		
6	10006	27-05-2021	Ajay Sharma	Completed	400052	Wholesaler	Dadar	Central	Maharastra	India		
7	10007	26-05-2021	Kiran Shinde	Completed	400057	Retail	Dadar	Central	Maharastra	India		

USING EXCEL POWER QUERY												
Sr No	Order ID	Date	Cust.Name	Stauts	Pincode	Type	City	Zone	State	Country		
1	10001	25-05-2021	Ajay Sharma	Completed	400052	Retail	Dadar	Central	Maharastra	India		
2	10002	25-05-2021	Kapil Sharma	Completed	400089	Wholesaler	Malad	West	Maharastra	India		
3	10003	26-05-2021	Suraj Gupta	Failed	400012	Retail	Andheri	West	Maharastra	India		
4	10004	26-05-2021	Vinod Gupta	Failed	400032	Retail	Vashi	East	Maharastra	India		
5	10005	25-05-2021	Raj Kale	Completed	400055	Retail	Dadar	Central	Maharastra	India		
6	10006	27-05-2021	Ajay Sharma	Completed	400052	Wholesaler	Dadar	Central	Maharastra	India		
7	10007	26-05-2021	Kiran Shinde	Completed	400057	Retail	Dadar	Central	Maharastra	India		

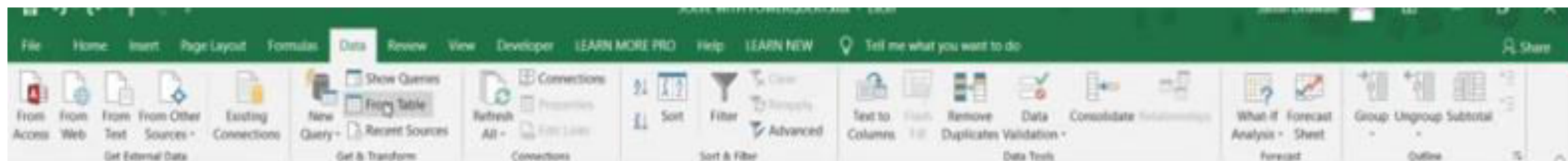


# Power Query



The screenshot displays a Microsoft Excel spreadsheet with a data table. The table has 18 rows and 12 columns. The columns are labeled as follows: A (Sr No), B (Order ID), C (Date), D (Cust Name), E (Status), F (Pincode), G (Type), H (City), I (Zone), J (State), K (Country), and L (Refund). The data is as follows:

Sr No	Order ID	Date	Cust Name	Status	Pincode	Type	City	Zone	State	Country	Refund
1	10001	25-05-2023	Ajay Sharma	Completed	400052	Retail	Dadar	Central	Maharashtra	India	No
2	10002	25-05-2023	Rajesh Sharma	Completed	400089	Wholesaler	Mumbai	West	Maharashtra	India	Yes
3	10003	26-05-2023	Sunil Gupta	Failed	400012	Retail	Andheri	West	Maharashtra	India	Yes
4	10004	26-05-2023	Vinod Gupta	Failed	400032	Retail	Vashi	East	Maharashtra	India	No
5	10005	25-05-2023	Raj Kulkarni	Completed	400055	Retail	Dadar	Central	Maharashtra	India	No



Order ID

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Sr No	Order ID	Date	Cust.Name										
2	Stauts	Pincode	Type	City										
3	Zone	State	Country	Refund										
4	1	10001	25-05-2021	Ajay Sharma										
5	Completed	400052	Retail	Dadar										
6	Central	Maharastra	India	No										
7	2	10002	25-05-2021	Kapil Sharma										
8	Completed	400089	Wholesaler	Malad										
9	West	Maharastra	India	Yes										
10	3	10003	26-05-2021	Suraj Gupta										
11	Failed	400012	Retail	Andheri										
12	West	Maharastra	India	Yes										
13	4	10004	26-05-2021	Vinod Gupta										
14	Failed	400032	Retail	Vashi										
15	East	Maharastra	India	No										
16														
17	Com													
18	Cent													

**Select All Data > Data Tab > Form Table**

SOXE WITH POWERBI.Pptx - Excel

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Get External Data Get & Transform Connections Sort & Filter Data Tools Forecast Outline

A1 26-05-2021

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Sr No	Order ID	Date	Cust.Name										
2	Stauts	Pincode	Type	City										
3	Zone	State	Country	Refund										
4	1	10001	25-05-2021	Ajay Sharma										
5	Completed	400052	Retail	Dadar										
6	Central	Maharastra	India	No										
7	2	10002	25-05-2021	Kapil Sharma										
8	Completed	400089	Wholesaler	Malad										
9	West	Maharastra	India	Yes										
10	3	10003	26-05-2021	Suraj Gupta										
11	Failed	400012	Retail	Andheri										
12	West	Maharastra	India	Yes										
13	4	10004	26-05-2021	Vinod Gupta										
14	Failed	400032	Retail	Vashi										
15	East	Maharastra	India	No										
16	5	10005	25-05-2021	Raj Kale										
17	Completed	400055	Retail	Dadar										
18	Central	Maharastra	India	No										

Sheet1

Create Table

Where is the data for your table?

My table has headers

OK Cancel

Home | Columns | Add Column | View

Refresh | Properties | Advanced Editor | Choose Columns | Remove Columns | Keep Rows | Remove Rows | Split Column | Group By | Data Type Any | Use First Row as Headers | Replace Values | Merge Queries | Append Queries | Combine Files | Manage Parameters | Data source settings | New Source | Recent Sources

Query | Manage Columns | Remove Rows | Sort | Transform | Combine | Parameters | Data Sources | New Query

Table.TransformColumnTypes(Source,{{"Column1", type any}, {"Column2", type any}, {"Column3", type any}, {"Column4", type text}})

Column1	Column2	Column3	Column4
1	Sr No	Order ID	Date
2	Status	Pincode	Type
3	Zone	State	Country
4	Completed	1	30001 25-05-2021 00:00:00
5	Completed	400052	Retail Dadar
6	Central	Maharashtra	India
7	Completed	2	30002 25-05-2021 00:00:00
8	Completed	400089	Wholesaler Matad
9	West	Maharashtra	India
10	Failed	3	30003 26-05-2021 00:00:00
11	Failed	400012	Retail Anandhi
12	West	Maharashtra	India
13	Failed	4	30004 26-05-2021 00:00:00
14	Failed	400022	Retail Vashi
15	East	Maharashtra	India
16	Completed	5	30005 25-05-2021 00:00:00
17	Completed	400003	Retail Dadar
18	Central	Maharashtra	India
19	Completed	6	30006 27-05-2021 00:00:00
20	Completed	400052	Wholesaler Dadar
21	Central	Maharashtra	India
22	Completed	7	30007 26-05-2021 00:00:00
23	Completed	400057	Retail Dadar
24	Central	Maharashtra	India

**Query Settings**

**PROPERTIES**

Name  
Table1

All Properties

**APPLIED STEPS**

Source  
K Changed Type



add Column View

Data Type Any ▾

Replace values ▾

Unpivot Columns ▾

Move ▾

Convert to List

Merge Columns

Extract ▾

Format

Parse

Text Column

Number Column

Date & Time Column

```
let transformColumnTypes(Source,({"Column1", type any}, {"Column2", type any}, {"Column3", type any}, {"Column4", type text}))
```

Column2	Column3	Column4
per ID	Date	Cust Name
code	Type	City
ite	Country	Refund
10001	25-05-2023 08:00:00	Ajay Sharma
400012	Retail	Babar
india	India	No
10007	25-05-2023 16:00:00	Kapil Sharma
400089	Wholesale	Masad
india	India	Yes
10003	26-05-2023 08:00:00	Suraj Gupta
400012	Retail	andheri
10004		

**Select All Data > Transform > UnPivot Column**

## All Properties

### APPLIED STEPS

Source

Changed Type

Unpivoted Columns

X Removed Columns

X Renamed Columns

Removed Columns

Table

Any Column



*fx*

= List.Split(#"Renamed Columns"[Column1],6)|

Column1



No

Order ID

Date

Customer Name

Products

Product Code

Product Name

Product Category

Product Subcategory

File Home Transform Add Column View Transform

Remove Duplicates Reverse Items Statistics

Keep Items Remove Items

Convert Manage Items Sort Automatic List

Queries

List.Split [Column1,4] (Column1,4)

	List
1	List
2	List
3	List
4	List
5	List
6	List
7	List
8	List
9	List
10	List
11	List
12	List
13	List
14	List
15	List
16	List

### Query Settings

**PROPERTIES**

Name: Table1

All Properties

**APPLIED STEPS**

- Source
- Changed Type
- Unpivoted Columns
- Removed Columns
- Renamed Columns
- Custom1**



8	List
9	List
10	List
11	List
12	List
13	List
14	List
15	List
16	List

List
Sr No
Order ID
Date
Cust.Name
Stauts
Pincode

*f*<sub>x</sub>

```
= Table.FromRows(List.Split("#Renamed Columns"[Column1],12))|
```



Table1.FromRows(List.Split(M"Renamed Columns"[Column1],12))

Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10	Column11
1	Order ID	Date	Cust.Name	Status	Product	Type	City	Zone	State	Country
2	1	23-05-2021 00:00:00	Ajay Sharma	Completed	400052	Retail	Dadar	Central	Maharashtra	India
3	2	25-05-2021 00:00:00	Kapil Sharma	Completed	400089	Wholesaler	Malad	West	Maharashtra	India
4	3	26-05-2021 00:00:00	Sunil Gupta	Failed	400012	Retail	Andheri	West	Maharashtra	India
5	4	26-05-2021 00:00:00	Vinod Gupta	Failed	400052	Retail	Vashi	East	Maharashtra	India
6	5	25-05-2021 00:00:00	Raj Kale	Completed	400050	Retail	Dadar	Central	Maharashtra	India
7	6	27-05-2021 00:00:00	Ajay Sharma	Completed	400052	Wholesaler	Dadar	Central	Maharashtra	India
8	7	26-05-2021 00:00:00	Kiran Shinde	Completed	400057	Retail	Dadar	Central	Maharashtra	India

## Query Settings

## PROPERTIES

Name

Table1

All Properties

## APPLIED STEPS

Source  
 Changed Type  
 Unpivoted Columns  
 Removed Columns  
 Renamed Columns

X Custom1

The image shows the Power Query ribbon with the 'Transform' group selected. A white circle highlights the 'Use First Row as Headers' option. Below the ribbon, a data table is visible with columns for Name, Status, Pincode, Type, City, Zone, and State. The table contains several rows of data.

Name	Status	Pincode	Type	City	Zone	State
Sharma	Completed	400052	Retail	Dadar	Central	Maharashtra
Sharma	Completed	400089	Wholesaler	Malad	West	Maharashtra
Gupta	Failed	400012	Retail	Andheri	West	Maharashtra
Gupta	Failed	400032	Retail	Vashi	East	Maharashtra
Sharma	Completed	400055	Retail	Dadar	Central	Maharashtra
Sharma	Completed	400052	Wholesaler	Dadar	Central	Maharashtra
Shinde	Completed	400057	Retail	Dadar	Central	Maharashtra

**Home Tab > Use First Row as Headers**



Close & Load ▾ Refresh Preview ▾ Advanced Editor Manage ▾ Choose Columns ▾ Remove Columns ▾ Keep Rows ▾ Remove Rows ▾ Z A ↓ Split Column ▾

Close & Load To... Manage Columns Reduce Rows Sort

```
= Table.TransformColumnTypes("#Promoted Headers",{{"!"
```

Queries

		123 Order ID	Date	A <sup>B</sup> C Cust.Name	A <sup>B</sup> C Stat
1	1	10001	25-05-2021 00:00:00	Ajay Sharma	Comple
2	2	10002	25-05-2021 00:00:00	Kapil Sharma	Comple
3	3	10003	26-05-2021 00:00:00	Suraj Gupta	Failed
4	4	10004	26-05-2021 00:00:00	Vinod Gupta	Failed
5	5	10005	25-05-2021 00:00:00	Raj Kale	Comple
6	6	10006	27-05-2021 00:00:00	Ajay Sharma	Comple
7	7	10007	26-05-2021 00:00:00	Kiran Shinde	Comple

NAME	
id	
Sharma	
r	
Sharma	
d	
Gupta	

Select how you want to view this data in your workbook.



Table



Only Create Connection

Select where the data should be loaded.



New worksheet



Existing worksheet:

\$B\$2



Add this data to the Data Model

Load

Cancel

Excel ribbon: **Table Tools** - **Design** tab. Sub-ribbon: **Query**. The ribbon contains options for table properties (e.g., **Header Row**, **Total Row**, **Banded Rows**), table style options, and a gallery of **Table Styles**.

Formula bar: **Sr No**

Sr No	Order ID	Date	Cust.Name	Status	Pincode	Type	City	Zone	State	Country	Refund
1	10001	25-05-2021 00:00	Ajay Sharma	Completed	400052	Retail	Dadar	Central	Maharastra	India	No
2	10002	25-05-2021 00:00	Kapil Sharma	Completed	400089	Wholesaler	Malad	West	Maharastra	India	Yes
3	10003	26-05-2021 00:00	Suraj Gupta	Failed	400012	Retail	Andheri West	West	Maharastra	India	Yes
4	10004	26-05-2021 00:00	Vinod Gupta	Failed	400032	Retail	Vashi	East	Maharastra	India	No
5	10005	25-05-2021 00:00	Raj Kale	Completed	400055	Retail	Dadar	Central	Maharastra	India	No
6	10006	27-05-2021 00:00	Ajay Sharma	Completed	400052	Wholesaler	Dadar	Central	Maharastra	India	No
7	10007	26-05-2021 00:00	Kiran Shinde	Completed	400057	Retail	Dadar	Central	Maharastra	India	No

**Workbook Queries**

- 1 query
  - Table1
    - 7 rows loaded.

THANK YOU