BOOST YOUR SKILLS IN

Microsoft Excel 365/2021

Chapter 14: Data Management for Business

Learning Objectives

After studying this chapter, you will be able to:

- Import data from various sources
- Consolidate data from multiple sheets into one sheet
- Create a series of data using different methods
- Chart trends and save chart templates
- Use additional functions for lookups and logic

Importing and Exporting Data

You must understand common database functionality and terminology to work effectively between programs.

- Tables are made up of fields and records, where data is stored in a database.
- Delimiters are any character used to specify a boundary between fields.
- CSV is the most common file format for importing and exporting data.
  - It works with Word, Excel, Access, and most accounting and database software.

Importing

- Importing data creates a query (a request for information from an external data source).
- A query creates a connection between Excel and the data source.
  - You choose how the data is imported and managed.
  - You can either import the data only once or ensure it is updated continually.

Exporting

To export, save a worksheet as a CSV version.

- CSV format doesn’t support multiple worksheets beyond the one that is active; therefore, you must save each worksheet individually.

When exporting, you can also save an Excel file as a:

- PDF, if you want it to be read-only
- HTML, to create a web page

Mail Merge with Microsoft Word

- Mail Merge allows you to send a custom letter to a large list of customers whose contact information you have stored in Excel.
- Mail merge:
  - The main document contains the information common to all documents.
  - The personal information is inserted using fields from Excel (or another database source).
  - Merge replaces the fields for each recipient to create a unique document for each customer.

Importing Tables from Microsoft Access

Access is the database program of Microsoft Office.

- It is directly compatible with Excel, so there's no need for a CSV file.
- Access tables are set up like Excel worksheets with columns (fields) and rows (records).

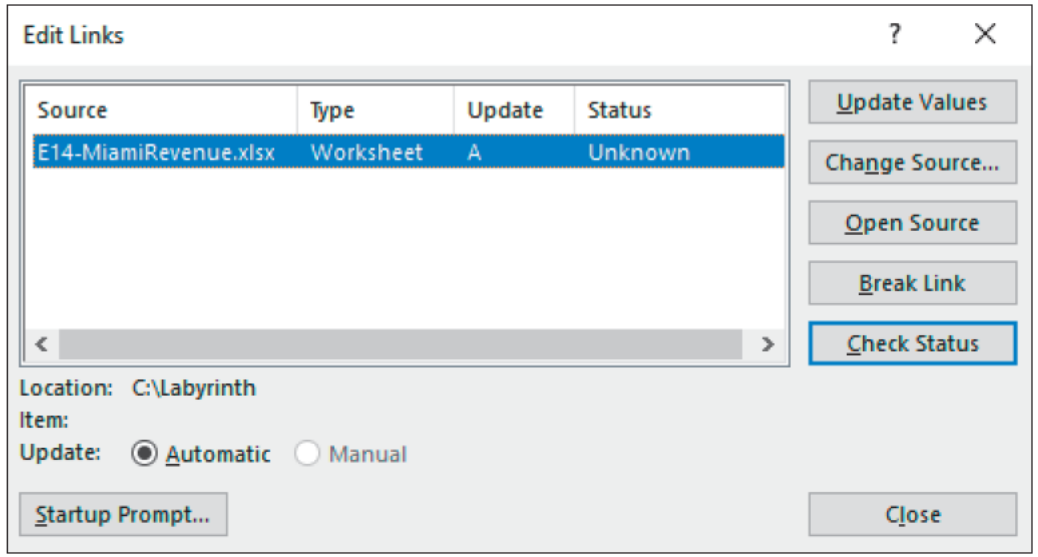
Customers

CustID	Last Name	First Name	Street Address	City	ST	ZIP	Telephone
AbramsJ	Abrams	John	1210 West Pier Wa	Palmetto	FL	34620	(941) 555-9902
AndersM	Anders	Mark	205 Montana St	Bradenton	FL	34211	(941) 555-2309
BlaserH	Blaser	Helen	600 Fowler	Tampa	FL	33802	(941) 555-1991
DavisP	Davis	Peter	65 Terracotta Way	Sarasota	FL	34024	(941) 555-1792
FleetwoodC	Fleetwood	Candace	92 Highland St	Sarasota	FL	34023	(941) 555-9256
HassanA	Hassan	Ahmed	2301 Proctor Rd	Sarasota	FL	34048	(941) 555-0809

Notice how an Access table resembles an Excel worksheet with records of data (rows) made up of individual fields (columns).

External Workbook References

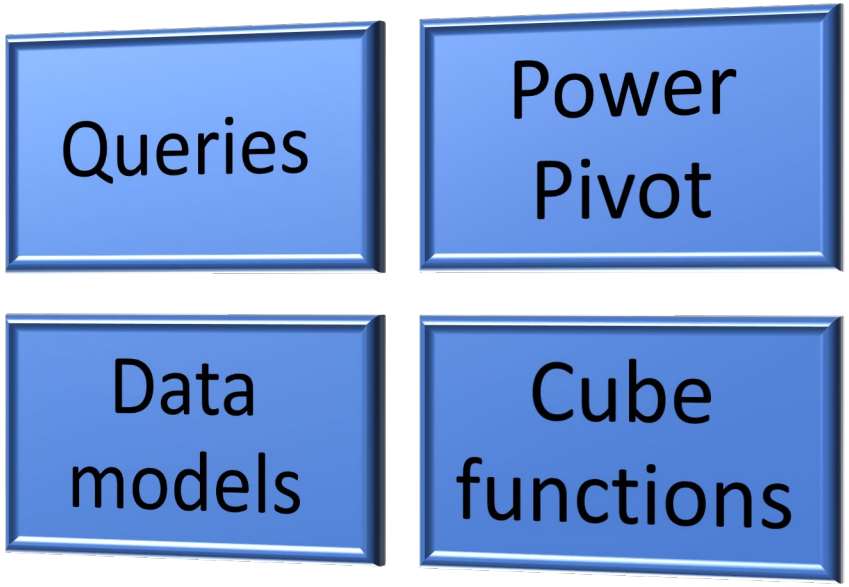
- You can create a reference from one workbook to another by creating a link to the data.
- If the source data changes, the information in the destination workbook will be updated automatically.
- Control these references in the Edit Links dialog box.



Summarizing Data

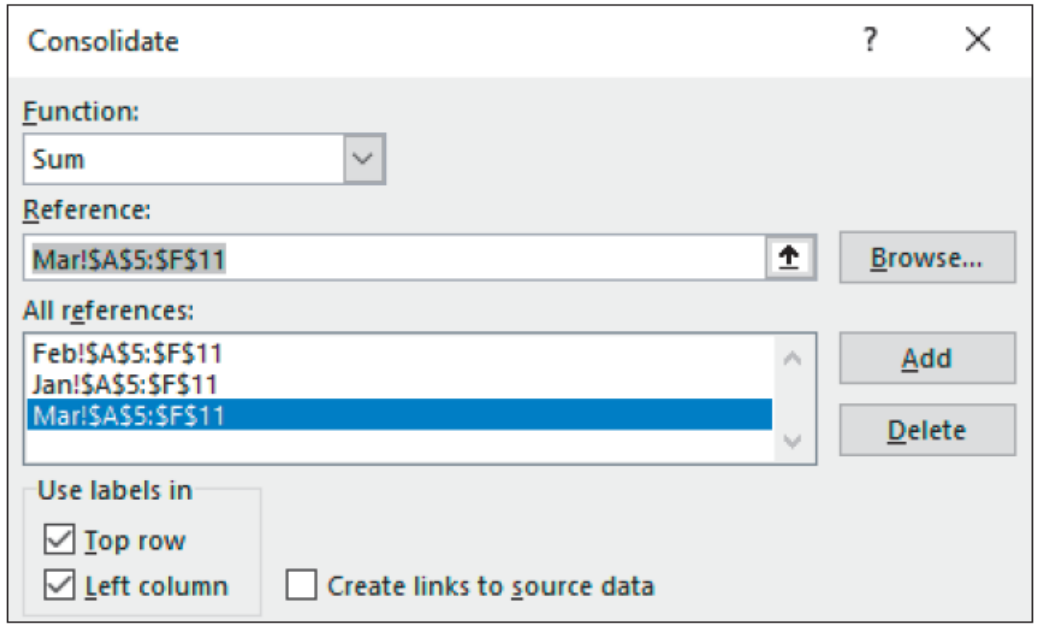
- When summarizing data across platforms, PivotTables and 3D references may not be the best choice.
- Consider using other Excel tools/add-ons:

These options require external data sources and extensive knowledge of the data you're working with.



Data Consolidation

- The Consolidate command on the Data tab can be used to summarize across multiple worksheets.
- The data need to have similar labels across the worksheets.



The Consolidate dialog box allows you to specify the data to consolidate and the function to apply to it.

Advanced Options for Filling a Data Series

- You can create a data series based on existing data, past trends, or anticipated linear/exponential growth rates.
- There are many options for how to create a data series:
  - It can be created in rows or columns.
  - It can be linear, growth, date, or AutoFill.
  - You can choose the step value or let Excel determine the trend.

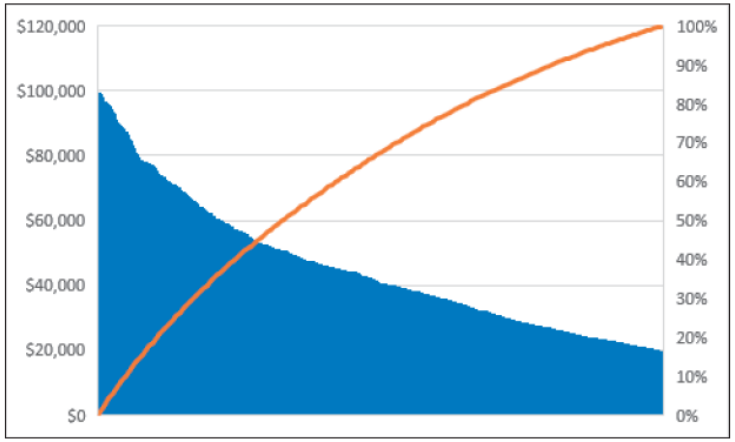
ABC Company					
Sales					
Current	Year 1	Year 2	Year 3	Year 4	Year 5
$10,000,000	$10,400,000	$10,800,000	$11,200,000	$11,600,000	$12,000,000
Expenses					
Current	Year 1	Year 2	Year 3	Year 4	Year 5
$ 8,000,000	$ 8,160,000	$ 8,323,200	$ 8,489,664	$ 8,659,457	$ 8,832,646

The values highlighted in yellow were created using the Fill Series command.

Additional Charts and Chart Tools

There are more than just column, bar, line, and pie charts to choose from!

- Histogram chart: Good for grouping large amounts of data and showing the distribution of data in groups.
- Pareto chart: Based on the 80/20 rule and shows the significance of contributions of parts relative to the whole.



More Chart Types and Templates

- There are several additional chart types available:
- Trendlines are indicators of overall increases or decreases in data and are useful for future projections.
- You can save a chart as a template so you can use the format again with new data!

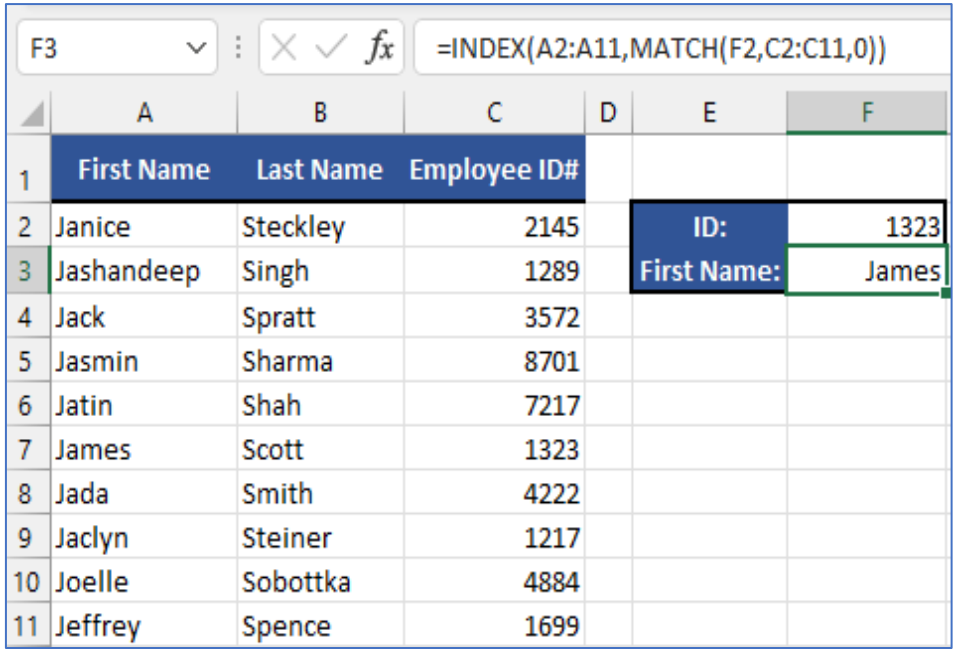
MORE CHART TYPES	
Chart Name	**Description**
Waterfall	Displays cumulative effects of positive and negative values, such as cash flow
Funnel	Displays progressively declining values as part of a process, such as sales conversions through the sales process
Sunburst	Shows data proportionally across levels, displayed as rings for each level
Box and Whisker	Displays variations in a data set when there are many sets of related data, such as tracking stock prices
Stock	Similar to Box and Whisker but requires data to be organized in a specific way

Additional Lookup and Logical Functions

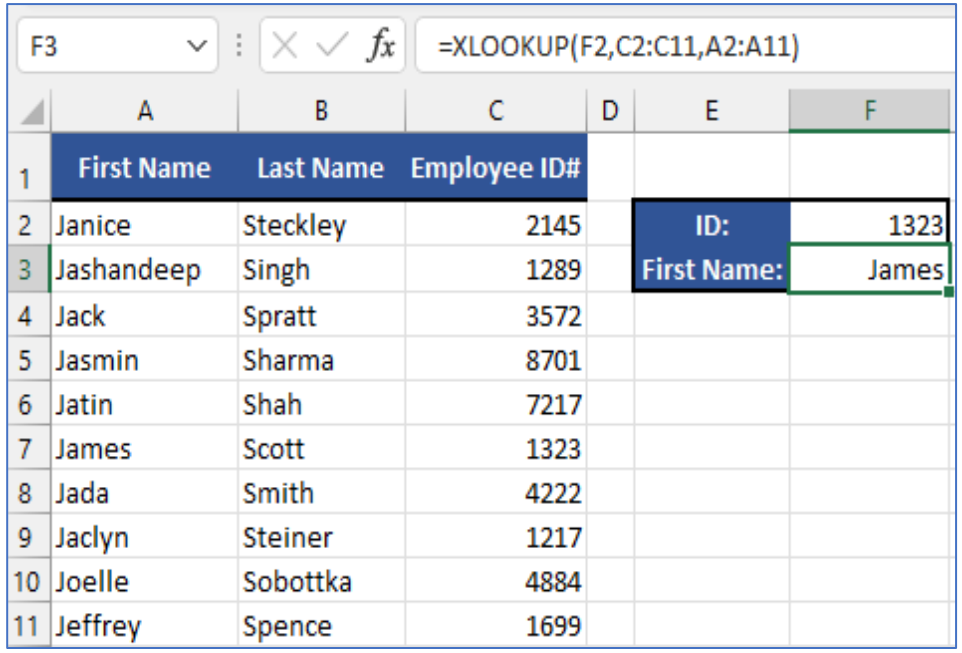
- In some situations, VLOOKUP and HLOOKUP will not work.
- Nesting the MATCH function inside the INDEX function allows more flexibility in performing a data lookup!
- The INDEX function returns a value from a specific cell location; the MATCH function determines what that location should be.

XLOOKUP

- This can replace and simplify other lookup processes.
- It looks for an exact match by default and allows you to search in any direction: up, down, left, or right.



	A	B	C	D	E	F
1	First Name	Last Name	Employee ID#			
2	Janice	Steckley	2145		ID:	1323
3	Jashandeep	Singh	1289		First Name:	James
4	Jack	Spratt	3572			
5	Jasmin	Sharma	8701			
6	Jatin	Shah	7217			
7	James	Scott	1323			
8	Jada	Smith	4222			
9	Jaclyn	Steiner	1217			
10	Joelle	Sobottka	4884			
11	Jeffrey	Spence	1699			



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