



# BOOST YOUR SKILLS IN **Microsoft Excel 365/2021**



Chapter 7: Date Functions and Conditional  
Formatting

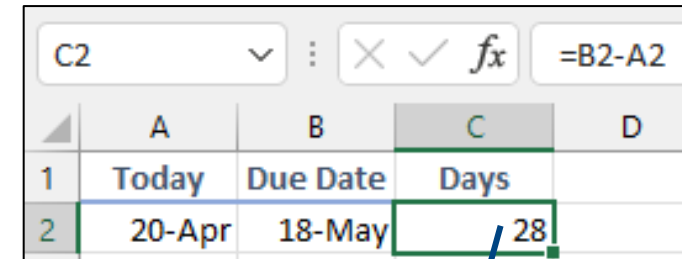
# Learning Objectives

After studying this chapter, you will be able to:

- Identify date serial numbers
- Apply custom date formatting
- Enter times
- Create functions using dates
- Perform date and time calculations
- Create customized conditional formatting rules
- Edit rules using the Conditional Formatting Rules Manager

# Date Serial Numbers

- Dates are stored as sequential serial numbers.
- Dates stored as serial numbers allow dates to be used in calculations.
- You can apply custom date formatting.



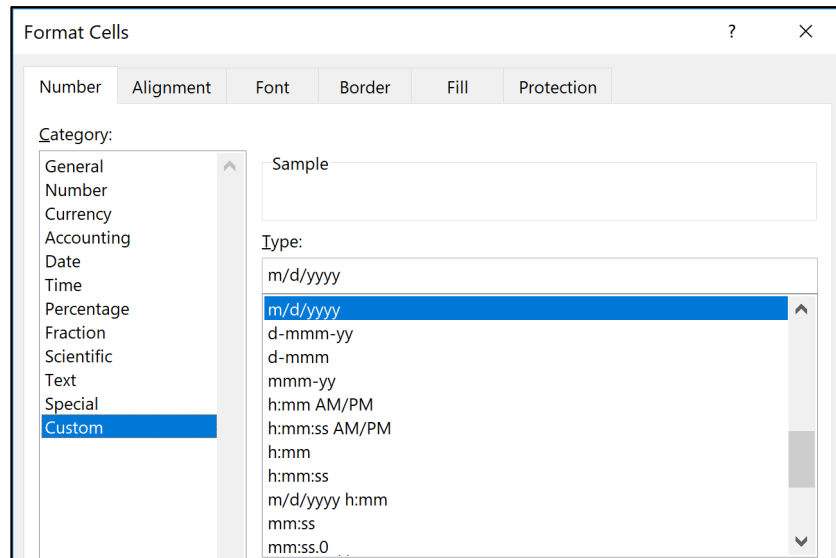
The image shows a portion of an Excel spreadsheet. The formula bar at the top displays the formula `=B2-A2`. The spreadsheet has columns labeled A, B, C, and D, and rows numbered 1 and 2. Cell A1 contains 'Today', B1 contains 'Due Date', and C1 contains 'Days'. Cell A2 contains '20-Apr', B2 contains '18-May', and C2 contains the number '28'. A blue arrow points from the text below to the value '28' in cell C2.

	A	B	C	D
1	Today	Due Date	Days	
2	20-Apr	18-May	28	

The formula in cell C2 is: `=B2-A2`

# Apply Custom Date Formatting

- There are custom date format codes:
  - Day, Month, and Year (d, m, and y)
  - Slash and Dash (/ and –)
- Set them up in the Format Cells dialog box.



# Entering Time Information

- Times have serial numbers attached, like dates.
- Excel applies the correct custom number formatting.
  - Example: Excel knows that 6:00 is 6:00 AM, because it assumes you are using a 24-hour clock.
- Times can be customized.

TIME ENTRIES		
Entry	Display	Time Stored As
6:00	6:00	6:00:00 AM or 0.25
9:00 AM	9:00 AM	9:00:00 AM or 0.375
12:00	12:00	12:00:00 PM or 0.5
13:30	13:30	1:30:00 PM or 0.5625
6:00 PM	6:00 PM	6:00:00 PM or 0.75

**Note the difference between how an entry is displayed and how it is stored in Excel.**

# Using Date Functions

- Dates provide important information and are even more valuable when used in functions.
- Enter date functions just like you do other functions.
  - Example: Use the TODAY function to enter today's date.  
*=TODAY()*

# Calculations Using Date and Time

- Use mathematical operations in date and time formulas.
  - You can subtract to find the number of days between two dates or two times.
  - You can add a number of days to a particular date.
- You can combine a formula with a date function.

# Conditional Formatting

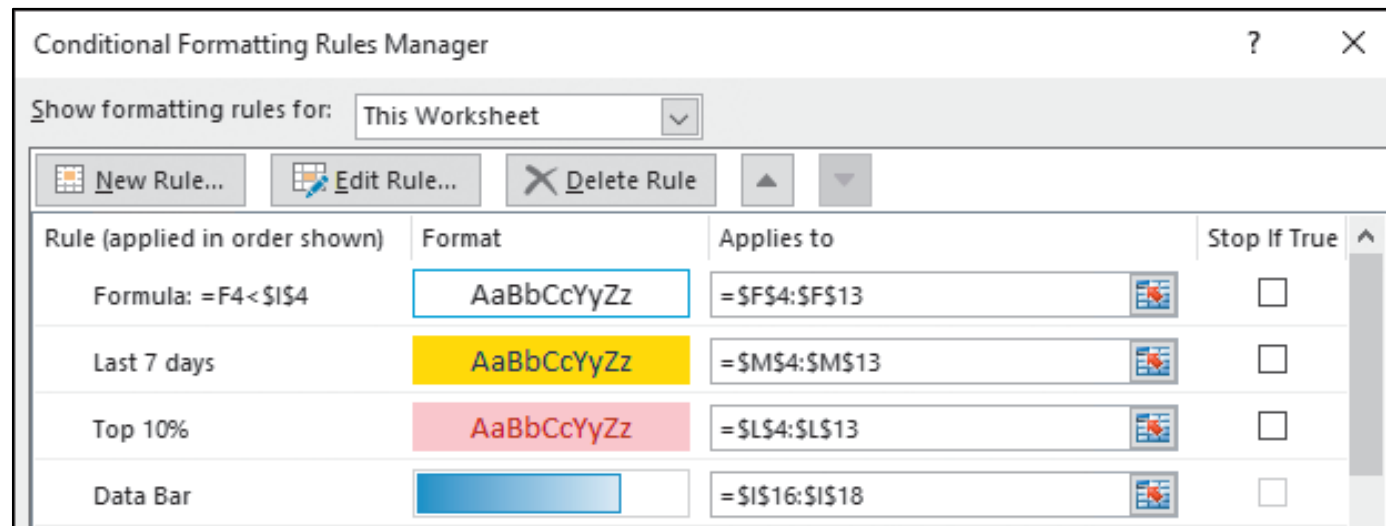
- This applies formatting to cells meeting a criteria.
- Preset options can be applied.
- You can create multiple rules for the same set of data.
- Conditional formatting updates cells when data is entered.
- You can apply conditional formatting with graphics.
  - Apply data bars, color scales, or icon sets.

Expenses	Actual	Budget	Difference
Bank Fees	<div><div></div></div> 7,200	7,300	✓ 100
Insurance	<div><div></div></div> 18,230	17,000	✗ -1,230
Rent	<div><div></div></div> 25000	25000	✓ 0



# Conditional Formatting Rules Manager

- Create, edit, and delete rules or rearrange the order.
- This displays existing rules for the entire worksheet or current selection.



**In this example, the Conditional Formatting Rules Manager shows the rules for the entire worksheet.**

# Conditional Formatting Using Formulas

Expand the possibilities of conditional formatting by creating a custom rule using a formula.

	A	B	C
1	Employee Name	Department	Date of Last Review
2	Carol Gregory	Sales	1/22/21
3	Natasha Dyas	Admin.	1/2/21
4	James Norman	Management	1/15/21
5	Joshua Garcia	Sales	10/23/20
6	Sarah Mckinnon	Sales	1/5/21
7	Shannon Miller	Management	9/23/20
8	Katrina Kormylo	Admin.	1/8/21
9	Susan Colley	Sales	11/21/20
10	William Emerson	Admin.	10/19/20
11	Eugene Fink	Sales	11/12/20
12			
13	Today:	1/1/2022	

Select a Rule Type:

- Format all cells based on their values
- Format only cells that contain
- Format only top or bottom ranked values
- Format only values that are above or below average
- Format only unique or duplicate values
- Use a formula to determine which cells to format**

Edit the Rule Description:

Format values where this formula is true:

Preview: AaBbCcYyZz Format...

OK Cancel

In this example, a formula is used to determine which employees are due for their annual wage review.