

Assignment - 4

1) How do you use the TODAY and NOW functions in Excel?

In Excel, TODAY and NOW are volatile date & time functions meaning they update automatically whenever the worksheet is recalculated.

⇒ TODAY() function

→ Purpose: Returns the current system date.

→ It does NOT show time, only the date.

Syntax:

=TODAY()

Example:

=TODAY()

It is showing on Today day.

⇒ NOW() function

→ Purpose: Returns the current system date and current time.

→ Time is showing in hours, minutes and seconds.

Syntax:

=NOW()

Example:

=NOW()

If is showing on current date & time.

Q) What is the difference b/w DATE and TEXT functions in Excel?

The DATE and TEXT functions are both used while working with dates, but their purpose and output are completely different.

⇒ DATE() function

→ Purpose :- Creates a valid Date value by combining year, month and day.

→ The result is a date (number format), not text.

→ Excel can use this date for calculations.

Syntax:

=DATE(Year, month, day)

Example:

=DATE(2026, 1, 22)

Result : 22-01-2026

Uses of DATE()

→ Creating dates from separate columns (Year, month, Day).

→ Avoiding date errors,

→ calculating age, tenure, deadlines

→ used in formulas like WORKDAY, EOMONTH, NETWORKDAY

→ TEXT function

- Purpose: Converts the number of or date into text in a specific format.
- Output of text, so it cannot be used for calculations.
- mainly used for display purposes.

→ method

Syntax:

=TEXT(value, format-text)

Example:

=TEXT(A1, "dd-MMM-YYYY")

If A1 = 22-01-2026

Result: 22-JAN-2026

Uses of Text():

→ Formatting dates for reports

→ Displaying currency, Percentages

→ Creating readable output.

→ Combining dates with text.

3) How would you calculate the difference b/w two dates in Excel?

In Excel, The difference b/w the two dates can be calculated in multiple ways, depending on

whether you want the result in days, months or years.

⇒ Method 1 = Simple Date Subtraction

→ Excel stores dates as serial numbers, so you can subtract them directly.

Formula

$$= \text{END-Date} - \text{start-Date}$$

Example :

$$A1 = 01-01-2026$$

$$B1 = 22-01-2026$$

$$= B1 - A1$$

Result: 21 days

Use case:

→ Finding number of days b/w two dates

→ Attendance and billing calculations.

⇒ Method 2: Using the DATEDIF function

→ DATEDIF calculates the difference in days, months or years.

→ This function is very useful for age calculation.
Syntax :

$$= \text{DATEDIF}(\text{start-date}, \text{end-Date}, \text{unit})$$

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Example:

- Days
 $=\text{DATEDIF}(A1, B1, "d")$

- Months
 $=\text{DATEDIF}(A1, B1, "m")$

- Years
 $=\text{DATEDIF}(A1, B1, "y")$

⇒ Method 3: calculating Age (Years, Months, Days)

$=\text{DATEDIF}(A1, B1, "y")$ & "Years" &

$=\text{DATEDIF}(A1, B1, "ym")$ & "months" &

$=\text{DATEDIF}(A1, B1, "md")$ & "Days"

Example Result:

25 Years 3 Months 10 Days

⇒ Method 4: Using YEARFRAC (Fractional Years)

⇒ Returns the difference as a decimal value.

Formula

$$=\text{YEARFRAC}(A1, B1)$$

Example:

Result: 0.57 (about half a year)

ii) Explain how the EOMONTH function is used in Excel.

⇒ Returns the ending date (last date) of a month.

→ very useful in accounting, Payroll, billing and reporting.

• Syntax:

=EOMONTH(start_date, months)

Arguments:

→ start_date → Any valid date

→ Months → Number of months before or after the start date

- 0 → same month
- 1 → next month
- -1 → Previous month

⇒ Examples:

1) Last day of the same month

=EOMONTH("15-01-2026", 0)

Result: 31-01-2026

2) Last day of next month

=EOMONTH("15-01-2026", 1)

Result: 28-02-2026

3) Last day of previous month

=EOMONTH("15-01-2026", -1)

use case

→ Monthly

→ Growth

⇒ Excel

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Formula

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5) How can you extract the day, month, and year from a date using Excel functions?

Excel provides separate built-in functions to extract the day, month and year from a given date. These functions are very useful in data analysis, reporting and calculations.

⇒ Given Date Example

Assume cell A1 = 22-01-2026

⇒ Excel

⇒ Extract Day using DAY()

Purpose: Returns the day number from a date.

Formula

= DAY(A1)

Result: 22

use case:

⇒ Attendance tracking

⇒ Daily reports

⇒ Extract Month Using MONTH()

Purpose: Returns the month number (1-12)

Formula

= MONTH(A1)

Result: 1

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use case

- Monthly analysis
- Grouping data by month
- Extract Year using YEAR()

Purpose: Returns the Year from a date.

Formula:

=YEAR(A1)

Result: 2026

- ⇒ Extract Month Name

To get month name instead of Number:

Formula:

=TEXT(A1, "mmmm")

Result: January

- ⇒ Extract Day Name To get Dayname instead of number

Formula: = (A1, "dddd")

Result: Thursday

- 6) What is the Purpose of the WORKDAY Function, and how is it used?

The WORKDAY function in Excel is used to calculate a future or past working date by excluding weekends and specified holidays. It is mainly used in Project Planning, HR, and business.

scheduling.

Purpose of WORKDAY

- Finds a date after adding or subtracting working days
- Excludes Saturdays and Sundays.
- Optionally excludes company holidays.
- Syntax:

=WORKDAY (start_date, days, [holidays])

Arguments

- start_date → starting date
- days → Number of working days
 - Positive → Future date
 - Negative → Past date
- holidays (optional) → Range of holiday dates

Example:

=WORKDAY ("22-01-2026", 10)

→ Returns the date after 10 working days, skipping weekends.

Q) How do you create a linear growth series using Fill series in Excel?

A linear growth series in Excel means a sequence of numbers that increase or decrease by a constant value. Excel's fill series feature makes this very easy.

→ What is linear growth series?

A series where each value increases by a fixed amount

Example: 10, 20, 30, 40, 50

common difference = +10

Method 1: Using the Fill Handle

→ Enter the first value in a cell (e.g., 10).

→ Enter the second value that defines the pattern (e.g., 20).

→ Select both cells.

→ Drag the Fill Handle downward or sideways.

→ Excel automatically continues the linear pattern.

Result: 10, 20, 30, 40, 50

Method 2: Using the Fill Series Command

→ Enter the starting values in a cell

→ Select the cell

→ Go to Home → Fill → Series

→ Choose:

→ series in: Rows or columns

→ Type: Lines

→ step value: Difference b/w values

→ stop value: Last value.

→ click OK.

uses of linear Growth series

Generating serial numbers

Creating timelines

monthly or yearly data

salary or sales increments

mathematical sequences.

Q) what are the different options available in the Auto Fill feature in Excel?

The Auto fill Feature in Excel is used to automatically fill data into adjacent cells by continuing a pattern based on existing values.

When you drag the fill handle, Excel provides several Auto fill options.

main Auto fill options:

→ copy cell

- copies the exact same value or formula to other cells.

- No pattern is applied.

Example : 5 → 5 → 5 → 5.

⇒ Fill series

- continues

- can be

Example:

10, 20

⇒ Fill F

- copies

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- uses

⇒ Fill

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⇒ Fill series

- Continues a numeric or data sequence.
- Can be linear (1, 2, 3) or based on a step value.

Example:

$$10, 20 \rightarrow 30, 40$$

⇒ Fill formatting Only

- Copies only the cell's formatting, not the value or formula.
- Useful when you want consistent formatting.

⇒ Fill without Formatting

- Copies values or formulas without copying formatting.

⇒ Fill Days

- Fills dates by incrementing days.

Example: 01-01-2026 → 02-01-2026

⇒ Fill weekdays

- Fill only working days, skipping weekends.

⇒ Fill months

Increases dates by months.

Example: Jan - Feb - Mar

⇒ Fill years

Increases dates by years

Example: 2024 → 2025 → 2026

→ custom lists
• Auto fill predefined lists like:

- Days (Monday, Tuesday...)

- months (January, February...)

- user-defined lists (Low, medium, High)

Q) How can you create a custom list for Auto fill in Excel?

A custom list in Excel allows you to define your own sequence of values so that Excel can automatically fill them using the Auto fill feature.

This is useful when working with repeated text patterns.

- A user defined sequence of values
- used by Auto fill to continue a pattern.
- Example:

Low → medium → High

HR → Finance → IT → Admin.

steps to create a custom list

1. click on file

2. select options

3. choose Advanced

4. scroll down to General

5. click Edit custom lists.

b. Enter your list values

Example: Low

Medium

High

7. click Add

8. click OK

using the custom list

→ Type the first item of the list in a cell

→ Drag the Fill Handle

→ Excel automatically fills the remaining list.

10) Describe a situation where you would use the NETWORKDAYS function.

The NETWORKDAYS Function in Excel is used to calculate the number of working days between two dates, excluding weekends (Saturday and Sunday) and optional holidays. It is commonly used in business, HR, and project management scenarios.

→ counts only workdays

→ Automatically excludes weekends

⇒ can exclude holiday dates if provided.

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Syntax:

=NETWORKDAYS (start_date, end_date, [holidays])

situation where NETWORKDAYS is used

Example: salary or payroll calculation

→ To calculate the number of working days in a month for salary processing.

→ Excludes weekends and public holidays.

Formula Example:

=NETWORKDAYS ("01-01-2026", "31-01-2026",
A1:A5)

(where A1:A5 contains holidays dates)