Excel Notes

Institute: Hadi-E-Learning

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Excel

- Topics
  - Basic Formulas: SUM, AVERAGE, PRODUCT, MEAN, MEDIAN, IF, SUMIF
  - Advanced Formulas: VLOOKUP, MATCH, INDEX
  - Pivot Tables
  - Basic Charting, Filters, Sorting

Sum Formula: =SUM (number1, number2 ...)

Individual Numbers:

=SUM (A1, B1, C1)

Range of Cells:

=SUM (A1:A10)

Combination of Numbers and Range:

=SUM (A1, B1:B10, C1)

Multiple Ranges:

=SUM (A1:A10, B1:B10, C1:C10)

AVERAGE FORMULA =AVERAGE (number1, number2 ...)

Individual Numbers:

=AVERAGE (A1, B1, C1)

Range of Cells:

=AVERAGE (A1:A10)

Combination of Numbers and Range:

=AVERAGE (A1, B1:B10, C1)

Multiple Ranges:

=AVERAGE (A1:A10, B1:B10, C1:C10)

PRODUCT FORMULA=PRODUCT (number1, number2 ...)

Individual Numbers:

=PRODUCT (A1, B1, C1)

Range of Cells:

=PRODUCT (A1:A10)

Combination of Numbers and Range:

=PRODUCT (A1, B1:B10, C1)

Multiple Ranges:

=PRODUCT (A1:A10, B1:B10, C1:C10)

MEAN To find the mean (average) in Excel, you can use the AVERAGE function.

- **Formula:** `=AVERAGE(range)`
- **Example:** `=AVERAGE(A1:A10)` (Replace `A1:A10` with your actual range)

MEDIAN To find the median in Excel, you can use the MEDIAN function.

- **Formula:** `=MEDIAN(range)`
- **Example:** `=MEDIAN(A1:A10)` (Replace `A1:A10` with your actual range)

IF AND SUMIF

If =IF (logical test, value_if_true, value_if_false)

Example: =IF (A1>10, "Greater than 10", "Not greater than 10")

SUMIF =SUMIF (range, criteria, [sum range])

Example: =SUMIF (A1:A10, ">50", B1:B10)

Advanced Formulas:

VLOOKUP

The **`VLOOKUP`** function in Excel is used to search for a value in the first column of a table and return a value in the same row from another column. Here's a step-by-step guide on how to use the **`VLOOKUP`** function.

Basic Syntax:

=VLOOKUP (lookup value, table array, col_index_num, [range lookup])

- **Lookup value:** The value you want to search for.
- **Table array:** The range of cells that makes up the table. The first column in this range is the one that contains the data you are searching.
- **col_index_num:** The column number in the table from which to retrieve the value.
- **[Range lookup]:** (Optional) A logical value indicating whether to do an approximate match (`TRUE` or omitted) or an exact match (`FALSE`).

MATCH

The **`MATCH`** function in Excel is used to search for a specified value in a range and return the relative position of that item. Here's how you can use the **`MATCH`** function:

Basic Syntax:

=MATCH (lookup value, lookup array, [match type])

- **Lookup value:** The value you want to search for.
- **Lookup array:** The range of cells that contains the items you are searching.
- **[Match type]:** (Optional) The type of match: `1` for less than, `0` for an exact match, and `-1` for greater than. If omitted, it defaults to `1`.

INDEX

The **`INDEX`** function in Excel is used to return the value of a cell in a specified row and column of a range. Here's how you can use the **`INDEX`** function:

Basic Syntax:

=INDEX (array, row_num, [column])

Pivot Tables

Creating a pivot table in Excel is a powerful way to analyze and summarize data. Here's a step-by-step guide on how to create a pivot table:

Step 1: Organize Your Data

Make sure your data is organized in a tabular format with column headers. Each column should represent a different attribute or variable.

Step 2: Select Your Data

Click on any cell within your data range.

Go to the "Insert" tab in the Excel ribbon.

Step 3: Insert Pivot Table

After selecting your data, click on the "PivotTable" button in the "Insert" tab. This will open the "Create PivotTable" dialog box.

Ensure that the "Table/Range" field displays the correct data range.

Choose where you want to place your pivot table. You can either place it in a new worksheet or an existing worksheet.

Click "OK."

Step 4: Design Your Pivot Table

The PivotTable Field List will appear on the right. Drag the fields from your data to the four areas below:

Values: The data you want to analyze (e.g., sum of sales, average of quantities).

Rows: The fields you want to use as rows in your pivot table.

Columns: The fields you want to use as columns in your pivot table.

Filters: The fields you want to use to filter your data.

Excel will automatically populate your pivot table based on your selections.

Step 5: Customize Your Pivot Table

You can drag and drop fields between different areas to rearrange your pivot table.

Right-click on cells to access various options, such as sorting and filtering.

You can apply various calculations to your values by clicking the drop-down arrow next to the value field in the Values area.

Step 6: Refresh Your Pivot Table

If your data changes, you might need to refresh your pivot table to update it. Right-click on any cell within the pivot table and select "Refresh."

ASSIGMENT: CRAETE A DASHBORD ON HR ANALYSIS