

Assignment Title:Logical Functions & Lookup

(Answer Sheet)

Question 1 - What is the purpose of the pivot table in excel?

The pivot table is used to summarize, analyse, explore, and present large amounts of data quickly and efficiently.

Question 2 - Create a Pivot table to show total sales by region

A screenshot of an Excel spreadsheet showing a PivotTable. The PivotTable has 'Sum of Sales' as the value field, 'Apples' as the column label, and 'Region' as the row label. The data shows sales for four regions: East, North, South, and West, across three products: Mangoes, Oranges, and Grand Total. The PivotTable Fields pane is open on the right, showing 'Product' and 'Sales' under 'Choose fields to add to report'. The 'Filters' section shows 'Region' is set to 'East'. The 'Values' section shows 'Sum of Sales' is selected.

Sum of Sales	Column Labels	Mangoes	Oranges	Grand Total
Row Labels	Apples			
East		467	467	467
North			347	347
South	736	837	845	2518
West	1069	1117	1311	3497
Grand Total:	1805	2521	2503	6829

Question 3. Apply conditional formatting to highlight sales greater than 400

A screenshot of an Excel spreadsheet showing a PivotTable with conditional formatting applied. The PivotTable has 'Sum of Sales' as the value field, 'Apples' as the column label, and 'Region' as the row label. The data shows sales for four regions: East, North, South, and West, across three products: Mangoes, Oranges, and Grand Total. The cells in the 'Mangoes' column for the South and West regions are highlighted in green, indicating sales greater than 400. A 'Format Cells' dialog box is open, showing the 'Greater Than' condition with a value of 400 and a 'Green Fill with Dark Green Text' format applied. The 'OK' button is visible at the bottom right of the dialog.

Sum of Sales	Column Labels	Mangoes	Oranges	Grand Total
Row Labels	Apples			
East		467	467	467
North			347	347
South	736	837	845	2518
West	1069	1117	1311	3497
Grand Total:	1805	2521	2503	6829

Medium Level:

Question 4. Explain the difference between sorting and filtering with an example from this data set.

Sorting means arranging the data either in ascending order (which means alphabetically starting from A→Z, numerically smallest to largest) or descending order (which means alphabetically Z→A, numerically largest to smallest).

With reference to the mentioned data set, we have done the sorting for the Region alphabetically in ascending order and sales numerically from smallest to largest number.

The screenshot shows a Microsoft Excel spreadsheet with a data table. The table has columns: Date, Region, Product, Sales, and Quantity. The data includes various dates, regions like East, North, South, products like Mangoes, Oranges, Apples, and their corresponding Sales and Quantities. A 'Sort' dialog box is open over the table, with 'Region' selected for sorting by 'Cell Value' and 'A to Z' as the order. There are buttons for 'OK' and 'Cancel' at the bottom right of the dialog.

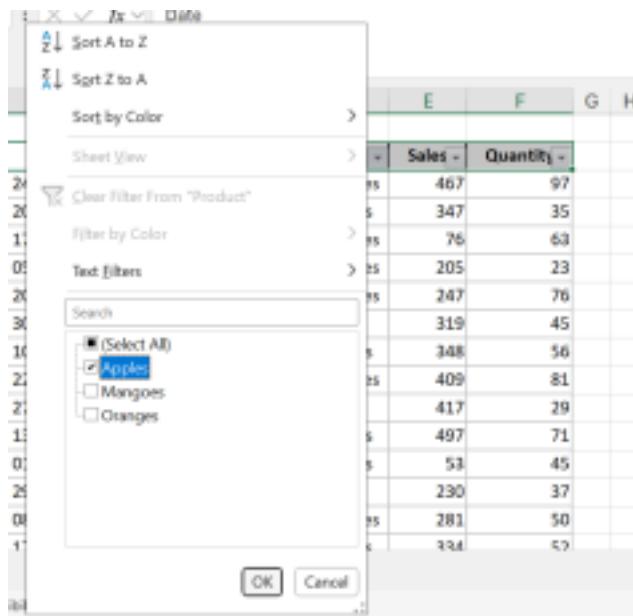
Date	Region	Product	Sales	Quantity
24-04-2024 07:34	East	Mangoes	467	97
20-06-2024 11:22	North	Oranges	347	35
17-03-2024 05:03	South	Mangoes	76	63
05-04-2024 06:18	South	Mangoes	205	23
20-01-2024 01:15	South	Mangoes	247	76
30-06-2024 00:00	South	Apples	319	45
10-01-2024 12:37	South	Oranges	348	56
22-05-2024 21:28	South	Mangoes	409	81
27-02-2024 03:47	South	Apples	417	29
13-05-2024 08:50	South	Oranges	497	71
01-06-2024 10:06	West	Oranges	53	45
29-01-2024 13:53	West	Apples	230	37
08-02-2024 02:31	West	Mangoes	281	50

Filtering means displaying only those rows that meet certain given criteria and hiding the rest temporarily.

With reference to the mentioned data set, we have done the filtering for the Product "Apples".

The screenshot shows the same Excel spreadsheet with a filter applied to the 'Product' column. Only the rows where the Product is 'Apples' are visible, while other rows are hidden. The filter icon is visible in the header of the Product column. The status bar indicates 'Turn on Filter cells.' and 'Then, click header to r'.

Date	Region	Product	Sales	Quantity
24-04-2024 07:34	East	Mangoes	467	97
20-06-2024 11:22	North	Oranges	347	35
17-03-2024 05:03	South	Mangoes	76	63
05-04-2024 06:18	South	Mangoes	205	23
20-01-2024 01:15	South	Mangoes	247	76
30-06-2024 00:00	South	Apples	319	45
10-01-2024 12:37	South	Oranges	348	56
22-05-2024 21:28	South	Mangoes	409	81
27-02-2024 03:47	South	Apples	417	29
13-05-2024 08:50	South	Oranges	497	71
01-06-2024 10:06	West	Oranges	53	45
29-01-2024 13:53	West	Apples	230	37
08-02-2024 02:31	West	Mangoes	281	50



Date	Region	Product	Sales	Quantity
30-06-2024 00:00	South	Apples	319	45
27-02-2024 03:47	South	Apples	417	29
29-01-2024 13:53	West	Apples	230	37
10-06-2024 22:44	West	Apples	398	33
07-03-2024 16:25	West	Apples	441	44

Question 5. Create a Pivot Chart showing Monthly Sales Trend.



Question 6. Use a Slicer to filter data by Product and observe changes in Sales.

The screenshot shows a Microsoft Excel interface with a PivotTable and various charts, demonstrating how to filter data by Product using a Slicer.

PivotTable Analysis Tab:

- Active Field: Sum of Sales
- Group Selection: Active Field
- Insert Slicer: Insert Slicer
- Filter: Filter
- Data: Refresh, Change Data Source, Actions
- Calculated Fields, Items, & Sets
- OLAP Tools
- Relationships
- PivotChart, PivotTable Tools

Sum of Sales PivotTable:

Region	Month	Product	Sum of Sales
South	Jan	Apples	735
South	Feb	Apples	478
South	Mar	Apples	442
South	Apr	Apples	349
South	May	Apples	347
South	Jun	Apples	348
South	Jul	Apples	348
South	Aug	Apples	348
South	Sep	Apples	348
South	Oct	Apples	348
South	Nov	Apples	348
South	Dec	Apples	348
South	Jan	Mangoes	307
South	Feb	Mangoes	307
South	Mar	Mangoes	309
South	Apr	Mangoes	309
South	May	Mangoes	309
South	Jun	Mangoes	309
South	Jul	Mangoes	309
South	Aug	Mangoes	309
South	Sep	Mangoes	309
South	Oct	Mangoes	309
South	Nov	Mangoes	309
South	Dec	Mangoes	309
South	Jan	Oranges	347
South	Feb	Oranges	347
South	Mar	Oranges	345
South	Apr	Oranges	345
South	May	Oranges	345
South	Jun	Oranges	345
South	Jul	Oranges	345
South	Aug	Oranges	345
South	Sep	Oranges	345
South	Oct	Oranges	345
South	Nov	Oranges	345
South	Dec	Oranges	345
East	Jan	Apples	487
East	Feb	Apples	487
East	Mar	Apples	487
East	Apr	Apples	487
East	May	Apples	487
East	Jun	Apples	487
East	Jul	Apples	487
East	Aug	Apples	487
East	Sep	Apples	487
East	Oct	Apples	487
East	Nov	Apples	487
East	Dec	Apples	487
East	Jan	Mangoes	487
East	Feb	Mangoes	487
East	Mar	Mangoes	487
East	Apr	Mangoes	487
East	May	Mangoes	487
East	Jun	Mangoes	487
East	Jul	Mangoes	487
East	Aug	Mangoes	487
East	Sep	Mangoes	487
East	Oct	Mangoes	487
East	Nov	Mangoes	487
East	Dec	Mangoes	487
East	Jan	Oranges	487
East	Feb	Oranges	487
East	Mar	Oranges	487
East	Apr	Oranges	487
East	May	Oranges	487
East	Jun	Oranges	487
East	Jul	Oranges	487
East	Aug	Oranges	487
East	Sep	Oranges	487
East	Oct	Oranges	487
East	Nov	Oranges	487
East	Dec	Oranges	487
West	Jan	Apples	345
West	Feb	Apples	345
West	Mar	Apples	345
West	Apr	Apples	345
West	May	Apples	345
West	Jun	Apples	345
West	Jul	Apples	345
West	Aug	Apples	345
West	Sep	Apples	345
West	Oct	Apples	345
West	Nov	Apples	345
West	Dec	Apples	345
West	Jan	Mangoes	345
West	Feb	Mangoes	345
West	Mar	Mangoes	345
West	Apr	Mangoes	345
West	May	Mangoes	345
West	Jun	Mangoes	345
West	Jul	Mangoes	345
West	Aug	Mangoes	345
West	Sep	Mangoes	345
West	Oct	Mangoes	345
West	Nov	Mangoes	345
West	Dec	Mangoes	345
West	Jan	Oranges	345
West	Feb	Oranges	345
West	Mar	Oranges	345
West	Apr	Oranges	345
West	May	Oranges	345
West	Jun	Oranges	345
West	Jul	Oranges	345
West	Aug	Oranges	345
West	Sep	Oranges	345
West	Oct	Oranges	345
West	Nov	Oranges	345
West	Dec	Oranges	345

Insert Slicers Dialog:

- Product (checked)
- Date
- Region
- Sales
- Quantity
- Days (Date)
- Months (Date)

Product Slicers and Charts:

- Apples Slicer:** Shows a stacked bar chart for Apples sales across regions (South, East, West) for Jan, Feb, Mar, Apr, May.
- Mangoes Slicer:** Shows a stacked bar chart for Mangoes sales across regions (South, East, West) for Jan, Feb, Mar, Apr, May.
- Oranges Slicer:** Shows a stacked bar chart for Oranges sales across regions (South, East, West) for Jan, Feb, Mar, Apr, May.



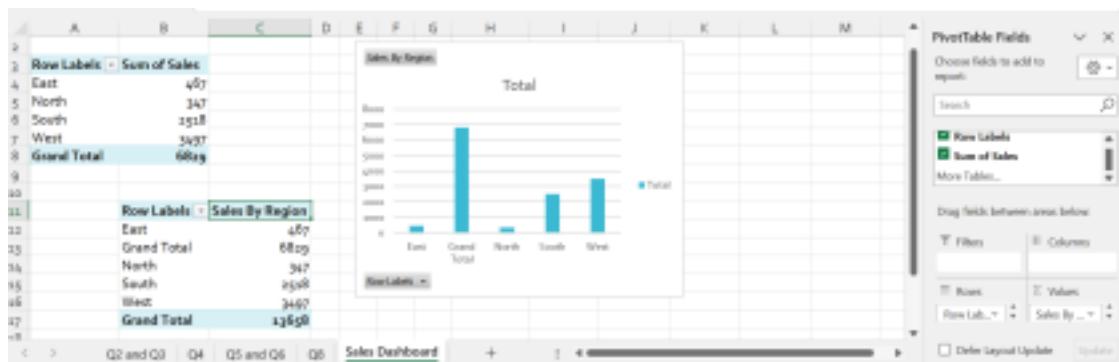
Question 7. Why are Dashboards important for decision making in business analysis?

Dashboards are important in decision making because they turn raw data into meaningful insights which further helps to spot the trends and act accordingly in any of the business.

Dashboard is actually a visual display of key metrics and data points.

Question 8. Create a Dashboard that includes:

Sales By Region (Pivot Table + Chart)



Product Filter (Slicer)

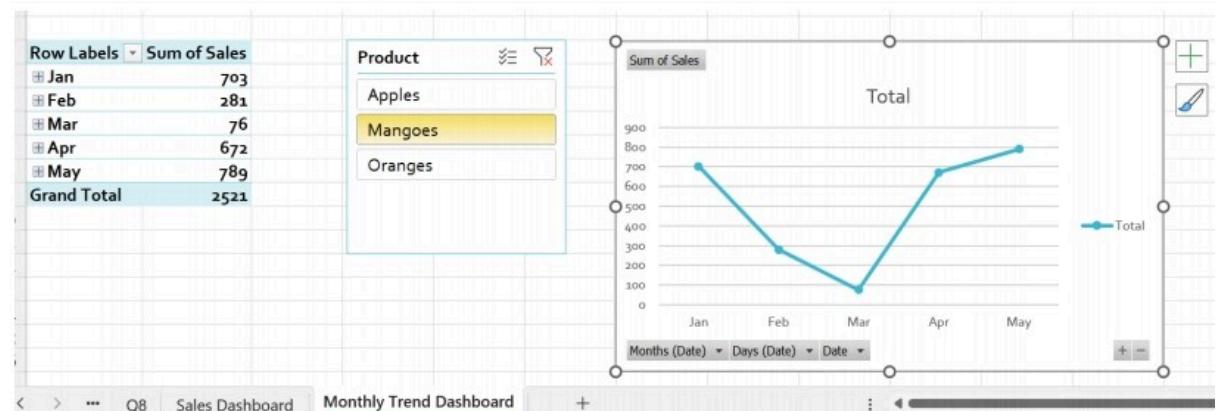
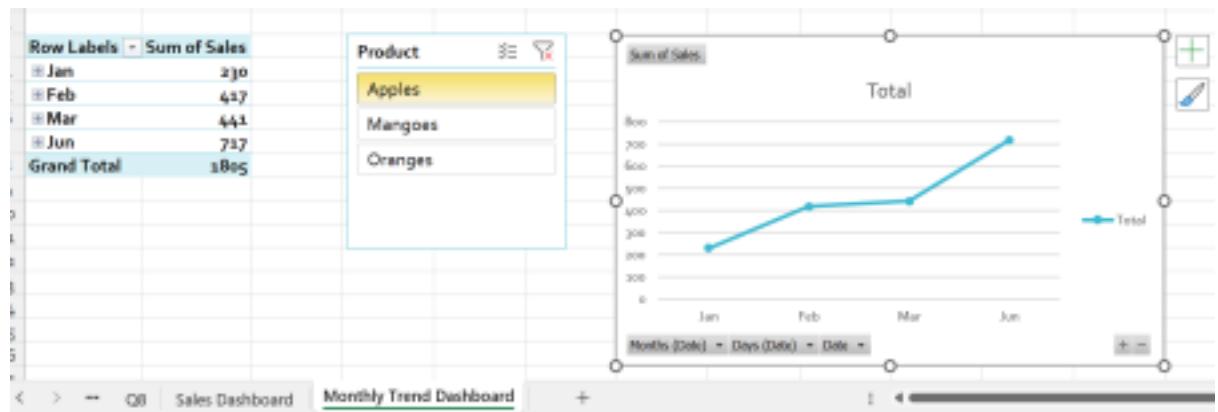
Row Labels	Sum of Sales
Jan	1281
Feb	1032
Mar	958
Apr	1155
May	1286
Jun	1117
Grand Total	6829

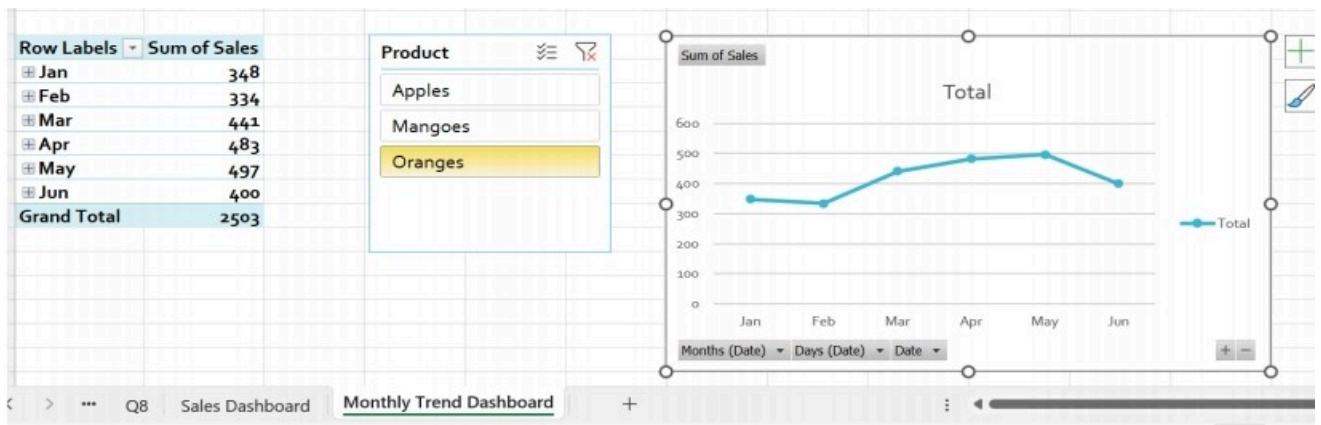
Product

- Apples
- Mangoes
- Oranges

The screenshot shows a dashboard interface with a table of monthly sales data and a list of products. The table has 'Row Labels' and 'Sum of Sales' columns. The products list includes 'Apples', 'Mangoes', and 'Oranges'. The dashboard title is 'Monthly Trend Dashboard'.

Monthly Trend (Line Chart)





Question 9. Group dates in the Pivot Table into Months and calculate the average sales per month.



Question 10. Combine Apples and Oranges into one group called Fruits and compare its Sales with other products.

