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|            |  |  |  |  |  |  |  |  |  |
| QUESTION 1 |  | 1. What is the purpose of a PivotTable in Excel?                                     |  |  |  |  |  |  |  |
|            |  |  |  |  |  |  |  |  |  |
| ANSWER     |  | A pivot table summarize , anlysis and large dataset in clear and interactive ways it |  |  |  |  |  |  |  |
|            |  | allows ypu to quickly extract insight by grouping data total sale regine or product  |  |  |  |  |  |  |  |

| Date            | Region | Product | Sales | Quantity |
|-----------------|--------|---------|-------|----------|
| 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |
| 1/10/2024 12:37 | South  | Oranges | 348   | 56       |
| 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |
| 1/29/2024 13:53 | West   | Apples  | 230   | 37       |
| 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |
| 2/17/2024 15:09 | West   | Oranges | 334   | 52       |
| 2/27/2024 3:47  | South  | Apples  | 417   | 29       |
| 3/7/2024 16:25  | West   | Apples  | 441   | 44       |
| 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |
| 3/26/2024 17:41 | West   | Oranges | 441   | 79       |
| 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |
| 4/14/2024 18:56 | West   | Oranges | 483   | 97       |
| 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |
| 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |
| 5/13/2024 8:50  | South  | Oranges | 497   | 71       |
| 5/22/2024 21:28 | South  | Mangoes | 409   | 81       |
| 6/1/2024 10:06  | West   | Oranges | 53    | 45       |
| 6/10/2024 22:44 | West   | Apples  | 398   | 33       |
| 6/20/2024 11:22 | North  | Oranges | 347   | 35       |
| 6/30/2024 0:00  | South  | Apples  | 319   | 45       |

|            |  |   |        |         |       |          |  |  |  |
|------------|--|---|--------|---------|-------|----------|--|--|--|
|            |  |   |        |         |       |          |  |  |  |
|            |  |   |        |         |       |          |  |  |  |
| QUESTION 3 |  | Apply Conditional Formatting to highlight sales greater than 400. |        |         |       |          |  |  |  |
|            |  |   |        |         |       |          |  |  |  |
|            |  |   |        |         |       |          |  |  |  |
|            |  | Date  | Region | Product | Sales | Quantity |  |  |  |
|            |  | 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |  |  |  |
|            |  | 1/10/2024 12:37   | South  | Oranges | 348   | 56       |  |  |  |
|            |  | 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |  |  |  |
|            |  | 1/29/2024 13:53   | West   | Apples  | 230   | 37       |  |  |  |
|            |  | 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |  |  |  |
|            |  | 2/17/2024 15:09   | West   | Oranges | 334   | 52       |  |  |  |
|            |  | 2/27/2024 3:47  | South  | Apples  | 417   | 29       |  |  |  |
|            |  | 3/7/2024 16:25  | West   | Apples  | 441   | 44       |  |  |  |
|            |  | 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |  |  |  |
|            |  | 3/26/2024 17:41   | West   | Oranges | 441   | 79       |  |  |  |
|            |  | 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |  |  |  |
|            |  | 4/14/2024 18:56   | West   | Oranges | 483   | 97       |  |  |  |
|            |  | 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |  |  |  |
|            |  | 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |  |  |  |
|            |  | 5/13/2024 8:50  | South  | Oranges | 497   | 71       |  |  |  |
|            |  | 5/22/2024 21:28   | South  | Mangoes | 409   | 81       |  |  |  |
|            |  | 6/1/2024 10:06  | West   | Oranges | 53    | 45       |  |  |  |
|            |  | 6/10/2024 22:44   | West   | Apples  | 398   | 33       |  |  |  |
|            |  | 6/20/2024 11:22   | North  | Oranges | 347   | 35       |  |  |  |
|            |  | 6/30/2024 0:00  | South  | Apples  | 319   | 45       |  |  |  |

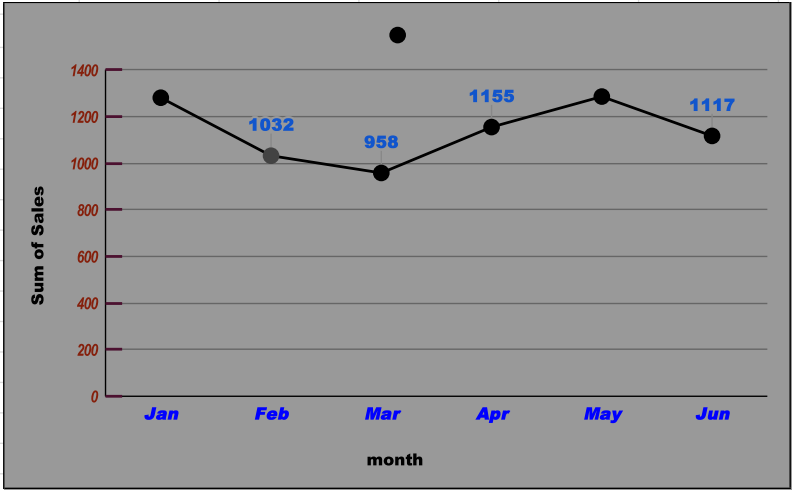
| QUESTION 4     | 4. Explain the difference between Sorting and Filtering with an example from this dataset. |   |       |          |   |  |                 |        |         |       |          |
|----------------|--|---|-------|----------|---|--|-----------------|--------|---------|-------|----------|
| ANSWER         |  |   |       |          |   |  |                 |        |         |       |          |
|                | Sorting :-   | Sorting rearranges the data in a specific order - ascending or descending |       |          |   |  |                 |        |         |       |          |
|                | example:-  | Sort sales from highest to lowest and lowest to highest                   |       |          |   |  |                 |        |         |       |          |
|                |  |   |       |          |   |  |                 |        |         |       |          |
| Date           | Region   | Product   | Sales | Quantity |   |  | Date            | Region | Product | Sales | Quantity |
| 1/1/2024 00:00 | West   | Mangoes   | 456   | 93       |   |  | 6/1/2024 10:06  | West   | Oranges | 53    | 45       |
| 1/10/2024 12:3 | South  | Oranges   | 348   | 56       |   |  | 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |
| 1/20/2024 1:15 | South  | Mangoes   | 247   | 76       |   |  | 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |
| /29/2024 13:53 | West   | Apples  | 230   | 37       |   |  | 1/29/2024 13:53 | West   | Apples  | 230   | 37       |
| 2/8/2024 02:31 | West   | Mangoes   | 281   | 50       |   |  | 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |
| /17/2024 15:09 | West   | Oranges   | 334   | 52       | Sorting data in sales column with example |  | 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |
| 2/27/2024 3:47 | South  | Apples  | 417   | 29       |   |  | 6/30/2024 0:00  | South  | Apples  | 319   | 45       |
| 3/7/2024 16:25 | West   | Apples  | 441   | 44       |   |  | 2/17/2024 15:09 | West   | Oranges | 334   | 52       |
| 3/17/2024 5:03 | South  | Mangoes   | 76    | 63       |   |  | 6/20/2024 11:22 | North  | Oranges | 347   | 35       |
| /26/2024 17:41 | West   | Oranges   | 441   | 79       |   |  | 1/10/2024 12:37 | South  | Oranges | 348   | 56       |
| 4/5/2024 06:18 | South  | Mangoes   | 205   | 23       |   |  | 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |
| /14/2024 18:56 | West   | Oranges   | 483   | 97       |   |  | 6/10/2024 22:44 | West   | Apples  | 398   | 33       |
| 4/24/2024 7:34 | East   | Mangoes   | 467   | 97       |   |  | 5/22/2024 21:28 | South  | Mangoes | 409   | 81       |
| 5/3/2024 20:12 | West   | Mangoes   | 380   | 92       |   |  | 2/27/2024 3:47  | South  | Apples  | 417   | 29       |
| 5/13/2024 8:50 | South  | Oranges   | 497   | 71       |   |  | 3/7/2024 16:25  | West   | Apples  | 441   | 44       |
| /22/2024 21:28 | South  | Mangoes   | 409   | 81       |   |  | 3/26/2024 17:41 | West   | Oranges | 441   | 79       |
| 6/1/2024 10:06 | West   | Oranges   | 53    | 45       |   |  | 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |
| 6/10/2024 22:4 | West   | Apples  | 398   | 33       |   |  | 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |
| /20/2024 11:22 | North  | Oranges   | 347   | 35       |   |  | 4/14/2024 18:56 | West   | Oranges | 483   | 97       |
| 6/30/2024 0:00 | South  | Apples  | 319   | 45       |   |  | 5/13/2024 8:50  | South  | Oranges | 497   | 71       |
|                |  |   |       |          |   |  |                 |        |         |       |          |
|                | Filtering:-  | Filtering hides data that doesn't meet criteria                           |       |          |   |  |                 |        |         |       |          |
|                | example:-  | filter to view only mango sales   |       |          |   |  |                 |        |         |       |          |
|                |  |   |       |          |   |  |                 |        |         |       |          |
| Date           | Region   | Product   | Sales | Quantity |   |  | Date            | Region | Product | Sales | Quantity |
| 1/1/2024 00:00 | West   | Mangoes   | 456   | 93       |   |  | 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |

|                |       |         |     |    |   |                 |       |         |     |    |
|----------------|-------|---------|-----|----|---|-----------------|-------|---------|-----|----|
| 1/20/2024 1:15 | South | Mangoes | 247 | 76 | Filtering the data in product coloum with exa | 1/20/2024 1:15  | South | Mangoes | 247 | 76 |
| 2/8/2024 02:31 | West  | Mangoes | 281 | 50 |   | 2/8/2024 02:31  | West  | Mangoes | 281 | 50 |
| 3/17/2024 5:03 | South | Mangoes | 76  | 63 |   | 3/17/2024 5:03  | South | Mangoes | 76  | 63 |
| 4/5/2024 06:18 | South | Mangoes | 205 | 23 |   | 4/5/2024 06:18  | South | Mangoes | 205 | 23 |
| 4/24/2024 7:34 | East  | Mangoes | 467 | 97 |   | 4/24/2024 7:34  | East  | Mangoes | 467 | 97 |
| 5/3/2024 20:12 | West  | Mangoes | 380 | 92 |   | 5/3/2024 20:12  | West  | Mangoes | 380 | 92 |
| /22/2024 21:28 | South | Mangoes | 409 | 81 |   | 5/22/2024 21:28 | South | Mangoes | 409 | 81 |

| Date            | Region | Product | Sales | Quantity |
|-----------------|--------|---------|-------|----------|
| 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |
| 1/10/2024 12:37 | South  | Oranges | 348   | 56       |
| 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |
| 1/29/2024 13:53 | West   | Apples  | 230   | 37       |
| 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |
| 2/17/2024 15:09 | West   | Oranges | 334   | 52       |
| 2/27/2024 3:47  | South  | Apples  | 417   | 29       |
| 3/7/2024 16:25  | West   | Apples  | 441   | 44       |
| 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |
| 3/26/2024 17:41 | West   | Oranges | 441   | 79       |
| 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |
| 4/14/2024 18:56 | West   | Oranges | 483   | 97       |
| 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |
| 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |
| 5/13/2024 8:50  | South  | Oranges | 497   | 71       |
| 5/22/2024 21:28 | South  | Mangoes | 409   | 81       |
| 6/1/2024 10:06  | West   | Oranges | 53    | 45       |
| 6/10/2024 22:44 | West   | Apples  | 398   | 33       |
| 6/20/2024 11:22 | North  | Oranges | 347   | 35       |
| 6/30/2024 0:00  | South  | Apples  | 319   | 45       |

5. Create a PivotTable showing Monthly Sales Trend.

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



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

| Date             | Region | Product | Sales | Quantity |  |             |              |  |  |
|------------------|--------|---------|-------|----------|--|-------------|--------------|--|--|
| 01-01-2024 00:00 | West   | Mangoes | 456   | 93       |  |             |              |  |  |
| 01-10-2024 12:37 | South  | Oranges | 348   | 56       |  | product     | Sum of total |  |  |
| 1/20/2024 1:15   | South  | Mangoes | 247   | 76       |  | Apples      | 1805         |  |  |
| 1/29/2024 13:53  | West   | Apples  | 230   | 37       |  | Mangoes     | 2065         |  |  |
| 02-08-2024 02:31 | West   | Mangoes | 281   | 50       |  | Oranges     | 2503         |  |  |
| 2/17/2024 15:09  | West   | Oranges | 334   | 52       |  | Grand Total | 6373         |  |  |
| 2/27/2024 3:47   | South  | Apples  | 417   | 29       |  |             |              |  |  |
| 03-07-2024 16:25 | West   | Apples  | 441   | 44       |  |             |              |  |  |
| 3/17/2024 5:03   | South  | Mangoes | 76    | 63       |  |             |              |  |  |
| 3/26/2024 17:41  | West   | Oranges | 441   | 79       |  |             |              |  |  |
| 04-05-2024 06:18 | South  | Mangoes | 205   | 23       |  |             |              |  |  |
| 4/14/2024 18:56  | West   | Oranges | 483   | 97       |  |             |              |  |  |
| 4/24/2024 7:34   | East   | Mangoes | 467   | 97       |  |             |              |  |  |
| 05-03-2024 20:12 | West   | Mangoes | 380   | 92       |  |             |              |  |  |
| 5/13/2024 8:50   | South  | Oranges | 497   | 71       |  |             |              |  |  |
| 5/22/2024 21:28  | South  | Mangoes | 409   | 81       |  |             |              |  |  |
| 06-01-2024 10:06 | West   | Oranges | 53    | 45       |  |             |              |  |  |
| 06-10-2024 22:44 | West   | Apples  | 398   | 33       |  |             |              |  |  |
| 6/20/2024 11:22  | North  | Oranges | 347   | 35       |  |             |              |  |  |
| 6/30/2024 0:00   | South  | Apples  | 319   | 45       |  |             |              |  |  |

product

Apples

Mangoes

Oranges

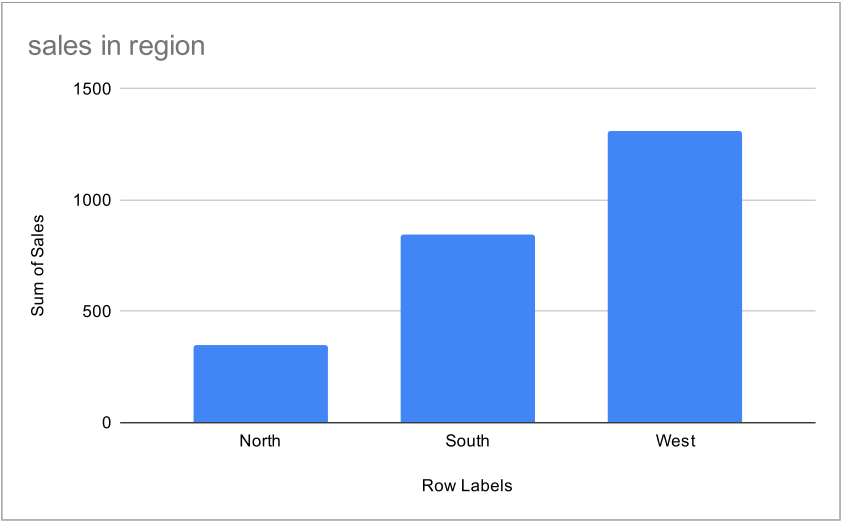
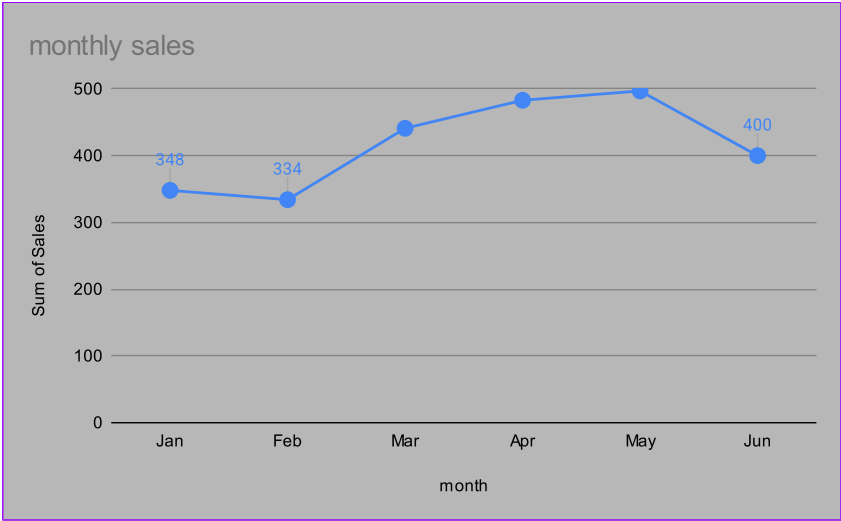
|            |   |  |  |  |  |  |  |  |  |  |  |  |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|
|            |   |  |  |  |  |  |  |  |  |  |  |  |
|            |   |  |  |  |  |  |  |  |  |  |  |  |
| QUESTION 7 | Why are Dashboard important for decision-making in business analysis?   |  |  |  |  |  |  |  |  |  |  |  |
|            |   |  |  |  |  |  |  |  |  |  |  |  |
| ANSWER     | Dashboards is important because they turn complex, raw data into visual formats like charts, graphs. This makes it easier for decision makers to understand trends, patterns, and outliers at a glance. |  |  |  |  |  |  |  |  |  |  |  |



8. Create a Dashboard that includes:

- \* Sales by region (PivotTable + chart)
- \* Product Filter (Slicer)
- \* Monthly Trend (Line Chart)

| Row Labels  | Sum of Sales | Row Labels  | Sum of Sales |
|-------------|--------------|-------------|--------------|
| Jan         | 348          | North       | 347          |
| Feb         | 334          | South       | 845          |
| Mar         | 441          | West        | 1311         |
| Apr         | 483          | Grand Total | 2503         |
| May         | 497          |             |              |
| Jun         | 400          |             |              |
| Grand Total | 2503         |             |              |



9. Group dates in the PivotTable into Months and calculate the average sales per month.

| Date            | Region | Product | Sales | Quantity |  |             |                  |  |  |  |
|-----------------|--------|---------|-------|----------|--|-------------|------------------|--|--|--|
| 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |  |             |                  |  |  |  |
| 1/10/2024 12:37 | South  | Oranges | 348   | 56       |  |             |                  |  |  |  |
| 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |  | Row Labels  | Average of Sales |  |  |  |
| 1/29/2024 13:53 | West   | Apples  | 230   | 37       |  | Jan         | 320.25           |  |  |  |
| 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |  | Feb         | 344              |  |  |  |
| 2/17/2024 15:09 | West   | Oranges | 334   | 52       |  | Mar         | 319.33           |  |  |  |
| 2/27/2024 3:47  | South  | Apples  | 417   | 29       |  | Apr         | 385              |  |  |  |
| 3/7/2024 16:25  | West   | Apples  | 441   | 44       |  | May         | 428.67           |  |  |  |
| 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |  | Jun         | 279.25           |  |  |  |
| 3/26/2024 17:41 | West   | Oranges | 441   | 79       |  | Grand Total | 341.45           |  |  |  |
| 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |  |             |                  |  |  |  |
| 4/14/2024 18:56 | West   | Oranges | 483   | 97       |  |             |                  |  |  |  |
| 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |  |             |                  |  |  |  |
| 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |  |             |                  |  |  |  |
| 5/13/2024 8:50  | South  | Oranges | 497   | 71       |  |             |                  |  |  |  |
| 5/22/2024 21:28 | South  | Mangoes | 409   | 81       |  |             |                  |  |  |  |
| 6/1/2024 10:06  | West   | Oranges | 53    | 45       |  |             |                  |  |  |  |
| 6/10/2024 22:44 | West   | Apples  | 398   | 33       |  |             |                  |  |  |  |
| 6/20/2024 11:22 | North  | Oranges | 347   | 35       |  |             |                  |  |  |  |
| 6/30/2024 0:00  | South  | Apples  | 319   | 45       |  |             |                  |  |  |  |

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

| Date            | Region | Product | Sales | Quantity |  |             |              |  |  |  |
|-----------------|--------|---------|-------|----------|--|-------------|--------------|--|--|--|
| 1/1/2024 00:00  | West   | Mangoes | 456   | 93       |  |             |              |  |  |  |
| 1/10/2024 12:37 | South  | Oranges | 348   | 56       |  | Row Labels  | Sum of Sales |  |  |  |
| 1/20/2024 1:15  | South  | Mangoes | 247   | 76       |  | Group1      | 4308         |  |  |  |
| 1/29/2024 13:53 | West   | Apples  | 230   | 37       |  | Apples      | 1805         |  |  |  |
| 2/8/2024 02:31  | West   | Mangoes | 281   | 50       |  | Oranges     | 2503         |  |  |  |
| 2/17/2024 15:09 | West   | Oranges | 334   | 52       |  | Mangoes     | 2521         |  |  |  |
| 2/27/2024 3:47  | South  | Apples  | 417   | 29       |  | Mangoes     | 2521         |  |  |  |
| 3/7/2024 16:25  | West   | Apples  | 441   | 44       |  | Grand Total | 6829         |  |  |  |
| 3/17/2024 5:03  | South  | Mangoes | 76    | 63       |  |             |              |  |  |  |
| 3/26/2024 17:41 | West   | Oranges | 441   | 79       |  |             |              |  |  |  |
| 4/5/2024 06:18  | South  | Mangoes | 205   | 23       |  |             |              |  |  |  |
| 4/14/2024 18:56 | West   | Oranges | 483   | 97       |  |             |              |  |  |  |
| 4/24/2024 7:34  | East   | Mangoes | 467   | 97       |  |             |              |  |  |  |
| 5/3/2024 20:12  | West   | Mangoes | 380   | 92       |  |             |              |  |  |  |
| 5/13/2024 8:50  | South  | Oranges | 497   | 71       |  |             |              |  |  |  |
| 5/22/2024 21:28 | South  | Mangoes | 409   | 81       |  |             |              |  |  |  |
| 6/1/2024 10:06  | West   | Oranges | 53    | 45       |  |             |              |  |  |  |
| 6/10/2024 22:44 | West   | Apples  | 398   | 33       |  |             |              |  |  |  |
| 6/20/2024 11:22 | North  | Oranges | 347   | 35       |  |             |              |  |  |  |
| 6/30/2024 0:00  | South  | Apples  | 319   | 45       |  |             |              |  |  |  |