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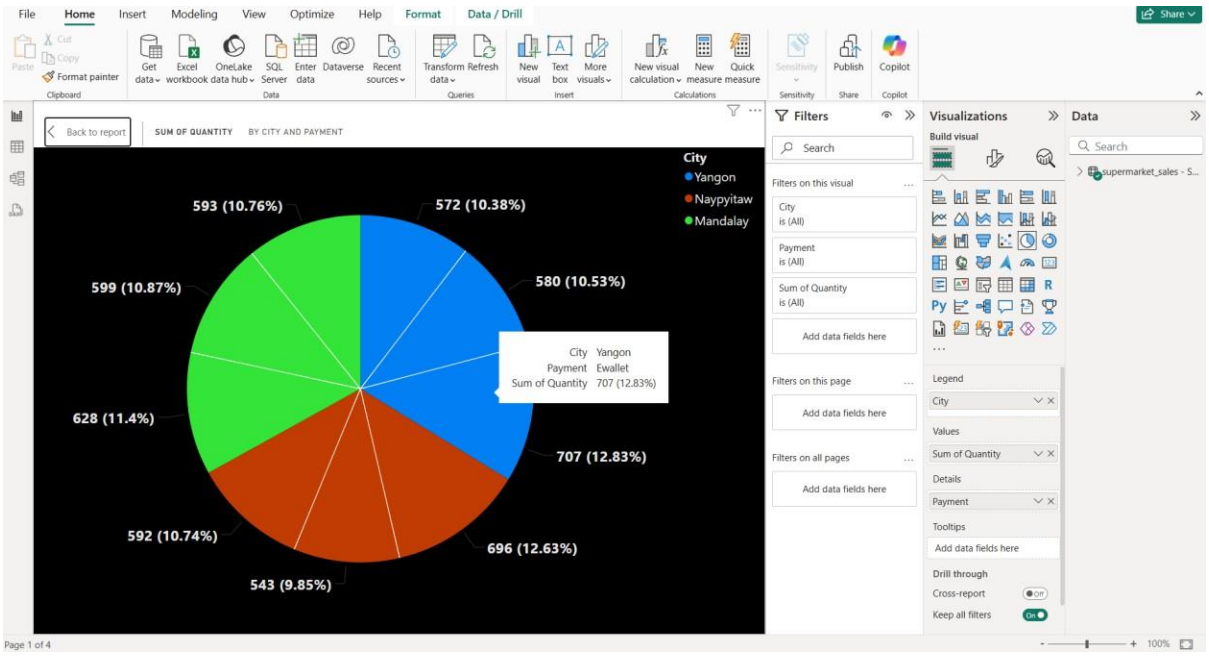
DA Assignment – 1

Objective: The growth of supermarkets in most populated cities is increasing and market competitions are also high. The dataset is one of the historical sales of supermarket company which has recorded in 3 different branches for 3 months data.

Task: Upload the dataset , delete the unnecessary columns if required

Create below Visualization:

- Pie Chart



Key Insights:

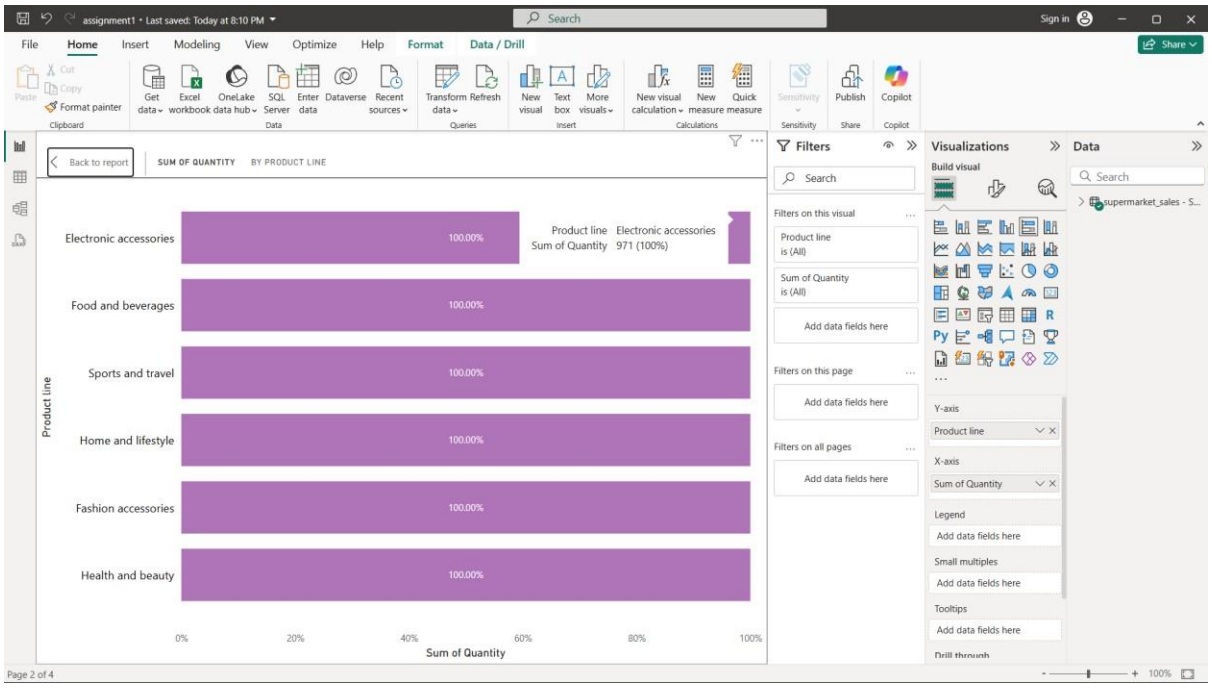
1. Top Segment:
    - The largest slice is 707 (12.83%), representing Yangon with Ewallet payments.
    - This suggests that in Yangon, Ewallet is a highly preferred payment method — a potential focus for promotions or expanding digital services.
2. City Comparison:
    - Yangon appears frequently across different payment methods, indicating it might be the busiest market overall.
    - If that aligns with sales revenue data, Yangon could be a primary target for growth strategies.
3. Payment Patterns:
    - Each city has a somewhat balanced distribution across different payment

types, but Ewallet seems more popular than traditional methods in some parts (like Yangon).

- This could hint at a growing trend toward cashless payments — an opportunity for loyalty rewards or app-based marketing.

4. Smaller Segments:
    - The smallest segment, 543 (9.85%), might indicate a less popular city or payment method. It's worth exploring whether that's due to lower demand, accessibility issues, or pricing differences.
5. Balanced Market Share:
    - The percentages range from around 9.85% to 12.83%, suggesting no single city or payment method completely dominates — a sign of a diversified, competitive market.

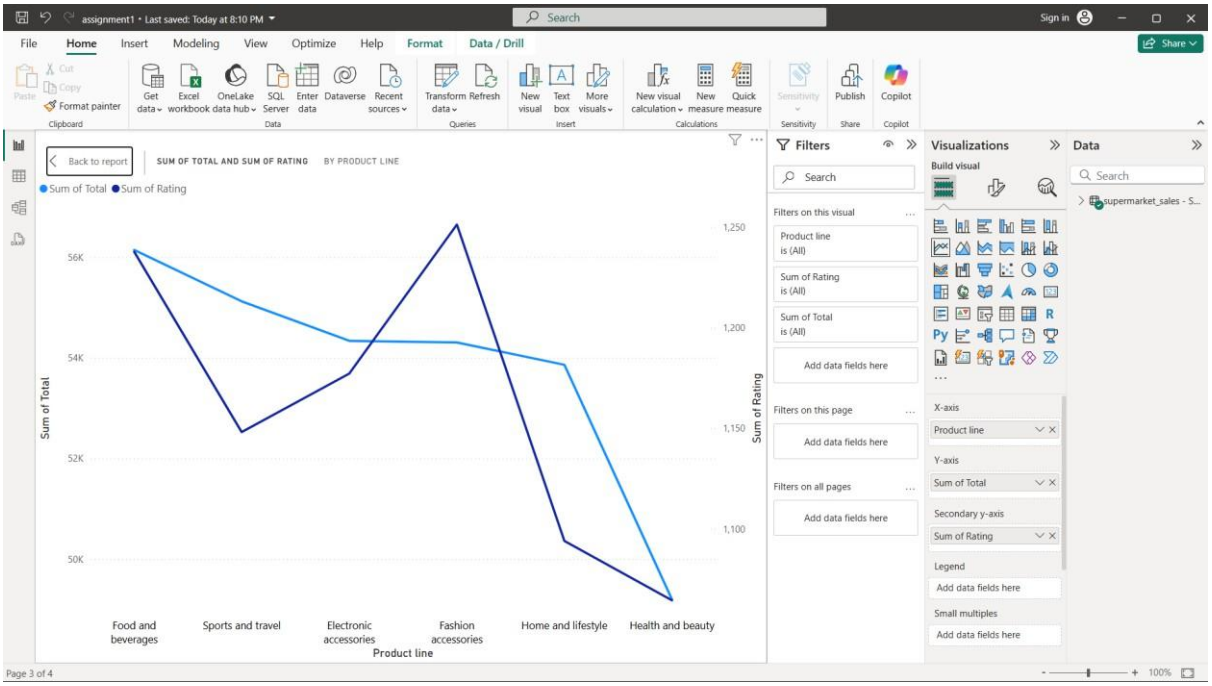
- Stacked Bar Chart



Key Insights:

1. Uniform 100% Bars:
    - Each product line — Electronic accessories, Food and beverages, Sports and travel, Home and lifestyle, Fashion accessories, Health and beauty — shows 100% for the sum of quantity.
    - This looks like the visual might be misinterpreted due to the chart type or calculation. It seems like each product line is being shown individually as a full total of its own, not compared to others.
2. Hidden Comparisons:
    - If your goal was to compare product lines by quantity sold, a stacked bar chart, clustered bar, or a column chart with percentages might be clearer.
    - Right now, the visualization suggests each product line is 100% of itself, which doesn't give relative insight into which product line sells the most.
3. Potential Data Exploration:
    - If the goal is to rank product lines by total quantity sold, switching to a sorted bar chart by quantity would quickly highlight the best and worst performers.
    - Alternatively, a treemap could show proportional sales more visually.

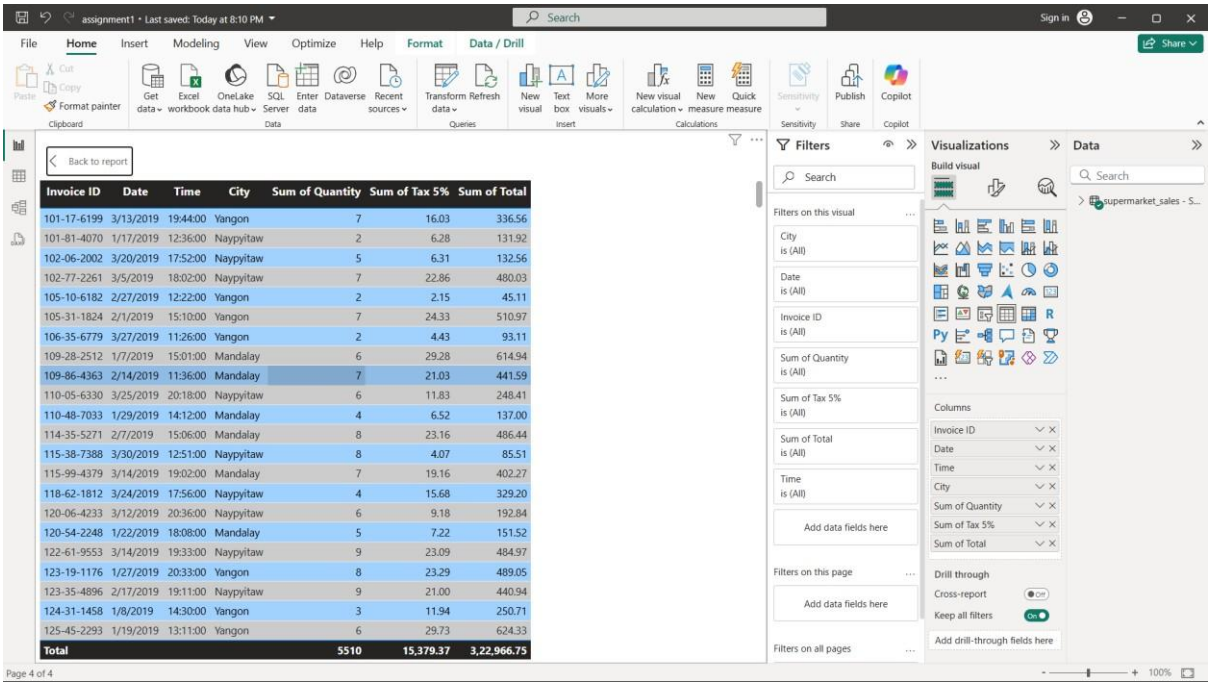
- Line Chart



Key Insights:

1. Food and Beverages Lead in Sales and Ratings:
    - This product line has high sales and strong ratings, indicating it's both popular and well-received. It could be a good category to further promote or expand.
2. Sports and Travel Underperforms in Sales:
    - It has a noticeable drop in sales despite moderate ratings. This might point to a niche market or an opportunity to boost visibility with targeted promotions.
3. Fashion Accessories Stand Out in Ratings:
    - High ratings but lower sales suggest customers who buy these products love them — a potential for leveraging reviews or influencer marketing to push sales upward.
4. Home and Lifestyle Dips:
    - Both sales and ratings sharply drop. This might indicate product dissatisfaction or a weaker market fit — worth investigating whether it's pricing, quality, or demand causing this decline.
5. Health and Beauty Struggles:
    - The lowest on both metrics — a clear sign this product line needs a rethink. Maybe promotions, repositioning, or understanding customer preferences could help revive it.

- Simple Table Chart



Invoice ID	Date	Time	City	Sum of Quantity	Sum of Tax 5%	Sum of Total
101-17-6199	3/13/2019	19:44:00	Yangon	7	16.03	336.56
101-81-4070	1/17/2019	12:36:00	Naypyitaw	2	6.28	131.92
102-06-2002	3/20/2019	17:52:00	Naypyitaw	5	6.31	132.56
102-77-2261	3/5/2019	18:02:00	Naypyitaw	7	22.86	480.03
105-10-6182	2/27/2019	12:22:00	Yangon	2	2.15	45.11
105-31-1824	2/1/2019	15:10:00	Yangon	7	24.33	510.97
106-35-6779	3/27/2019	11:26:00	Yangon	2	4.43	93.11
109-28-2512	1/7/2019	15:01:00	Mandalay	6	29.28	614.94
109-86-4363	2/14/2019	11:36:00	Mandalay	7	21.03	441.59
110-05-6330	3/25/2019	20:18:00	Naypyitaw	6	11.83	248.41
110-48-7033	1/29/2019	14:12:00	Mandalay	4	6.52	137.00
114-35-5271	2/7/2019	15:06:00	Mandalay	8	23.16	486.44
115-38-7388	3/30/2019	12:51:00	Naypyitaw	8	4.07	85.51
115-99-4379	3/14/2019	19:02:00	Mandalay	7	19.16	402.27
118-62-1812	3/24/2019	17:56:00	Naypyitaw	4	15.68	329.20
120-06-4233	3/12/2019	20:36:00	Naypyitaw	6	9.18	192.84
120-54-2248	1/22/2019	18:08:00	Mandalay	5	7.22	151.52
122-61-9553	3/14/2019	19:33:00	Naypyitaw	9	23.09	484.97
123-19-1176	1/27/2019	20:33:00	Yangon	8	23.29	489.05
123-35-4896	2/17/2019	19:11:00	Naypyitaw	9	21.00	440.94
124-31-1458	1/8/2019	14:30:00	Yangon	3	11.94	250.71
125-45-2293	1/19/2019	13:11:00	Yangon	6	29.73	624.33
Total				5510	15,379.37	3,22,966.75

Key Insights:

1. Total Performance Overview:
    - You've sold a total of 5,510 units, generating 3,229,966.75 in revenue, with 5% tax amounting to 161,498.34 (5% of total sales).
    - This gives a quick profitability snapshot — a good starting point to analyze margins.
2. City Breakdown:
    - From the table, Yangon, Naypyitaw, and Mandalay show up repeatedly.
    - To dive deeper, a pivot-style visual could help summarize city performance (e.g., which city drives the most revenue or quantity). Yangon looks dominant, but a clearer breakdown would confirm that.
3. High Sales Variability:
    - The total amounts per invoice vary significantly — some invoices are around 120-150, while others hit 400+.
    - It's worth exploring what causes these spikes — larger orders, specific products, or peak times?
4. Time-Based Patterns:
    - If the Time column spans different parts of the day, checking whether sales peak during specific hours could inform staff scheduling or promotions (e.g., evening rush boosts sales).
5. Tax Insight:
    - Each row consistently applies 5% tax, confirming a clean data structure. However, if any tax value deviates (e.g., discounts or tax exemptions), a conditional formatting alert could catch that.