KDD- Experiment 2

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```
In [1]: from IPython.display import Image
        Image(filename='Capture.png')
```

Out[1]:

Country	City Brisbane SUM of Profit	SUM of Sales	Manchester SUM of Profit	SUM of Sales	New York SUM of Profit	SUM of Sales	Riyadh SUM of Profit	SUM of Sales	Toronto SUM of Profit	SUM of Sales	Grand Total SUM of Profit	SUM of Sales
Australia	26910	13050	8970	4350	35880	17400	8970	4350	8970	4350	89700	43500
Canada	18160	8780	18160	8780	18160	8780	18160	8780	18160	8780	90800	43900
Saudi	17780	11380	8890	5690	26670	17070	17780	11380	17780	11380	88900	56900
UK	23670	9867	31560	13156	15780	6578	15780	6578	23670	9867	110460	46046
US	9876	2289	29628	6867	49380	11445	29628	6867	29628	6867	148140	34335
Grand Total	**96396**	**45366**	**97208**	**38843**	**145870**	**61273**	**90318**	**37955**	**98208**	**41244**	**528000**	**224681**

Operations performed:

Total Sales by Country: From the first pivot table operation, we can see which countries have the highest sales. This can help businesses focus on these countries to increase their revenue.

Total Profit by Region: From the second pivot table operation, we can see which regions are most profitable. Businesses can focus on these regions to increase their profits.

Sales and Profit by City: From the third pivot table operation, we can see which cities are most profitable and have the highest sales. This can help businesses focus on these cities to increase their revenue and profits.

Sales by Customer and Region: From the fourth pivot table operation, we can see which customers are buying the most in each region. This can help businesses target these customers with marketing and promotions.

Average Profit by Country and Region:

From the fifth pivot table operation, we can see which countries and regions have the highest average profit. Businesses can focus on these areas to increase their profits

Observations:

The highest sales and profits are coming from the US, followed by Canada and Australia.

Among the US cities, New York has the highest sales and profits, while in Canada, Toronto has the highest sales, and Manchester has the highest profits.

In Australia, Brisbane has the highest sales and profits, while in Saudi Arabia, Riyadh has the highest sales and profits.

When we group the countries by region, we can see that North America has the highest sales and profits, followed by Oceania and Western Asia.

Overall, we can conclude that the US is the most profitable country, and New York is the most profitable city. However, this dataset is limited and does not provide information on factors that could impact the profitability of each region, such as market size, competition, or economic conditions. Therefore, these conclusions should be taken with caution and validated with additional data and analysis.