Experiment 8 Output

Data aggregation techniques were **implemented** to generate **summarized views** of large datasets, enhancing reporting and analytical efficiency.

Total Sales Aggregation

Fig 1: Sales aggregation on table

Sales by Category

```
mysql> SELECT Product, NULL AS Region, SUM(Sa
   -> FROM Sales
   -> GROUP BY Product
   -> UNION ALL
   -> SELECT NULL, Region, SUM(Sales_Amount)
   -> FROM Sales
   -> GROUP BY Region
   -> UNION ALL
   -> SELECT NULL, NULL, SUM(Sales_Amount)
   -> FROM Sales;
 Product | Region | Total_Sales |
          NULL
 Laptop
                    194000.00
 Phone
          NULL
                     126000.00
 NULL
          North
                     163000.00
 NULL
          South
                     157000.00
                  320000.00
 NULL
         NULL
 rows in set (0.00 sec)
```

Fig 3: Grouping Queries

Region Wise aggregation

-> FR	LECT Regior OM Sales OUP BY Regi	ion;	AS Sale	es_Count
Region Sales_Count				
North South		4 4		
2 rows in set (0.00 sec)				
<pre>mysql> SELECT Year, MAX(Sales_Amount) AS Max_S -> FROM Sales -> GROUP BY Year;</pre>				
Year	Max_Sales	Min_Sales		
: :	50000.00 52000.00			
2 rows in set (0.00 sec)				

Fig 2: Min-Max Queries

Regional-Yearly Aggregation

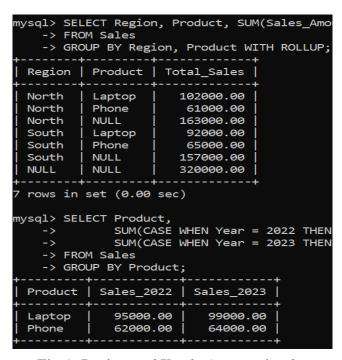


Fig 4: Region and Yearly Aggregation by product Categories

Madhurima Rawat DS 42