Academic Year: 2024-2025
Semester: VI
Class / Branch: TE/DS
Subject: DWM
Name of Instructor: Prof. Archana k.

Name of Student: Diya Thakkar
Student ID: 22107040
Date Of Performance:5/8/24
Date Of Submission:

Experiment No.3

Aim:- To perfom OLAP operations.

Output:-

Roll up

```
mysql> SELECT
    ->     t.year,
    ->     b.title AS book_title,
    ->     COUNT(*) AS number_of_sales
    -> FROM
    ->     book_dimensions b
    -> JOIN
    ->     sales_fact_table sf ON b.book_id = sf.book_id
    -> JOIN
    ->     time t ON sf.time_id = t.time_id
    -> GROUP BY
    ->     t.year,
    ->     b.title
    -> ORDER BY
    ->     t.year,
    ->     b.title;
+------+------------+-----------------+
```

```
+------+------------+-----------------+
| year | book_title | number_of_sales |
+------+------------+-----------------+
| 2020 | abc        |               3 |
| 2020 | jkl        |               1 |
| 2021 | def        |               2 |
| 2021 | ghi        |               1 |
| 2021 | jkl        |               4 |
| 2022 | abc        |               1 |
| 2022 | def        |               1 |
| 2022 | ghi        |               1 |
| 2022 | jkl        |               1 |
+------+------------+-----------------+
9 rows in set (0.00 sec)
```

Drill down

```
mysql> SELECT
    ->     s.store_name,
    ->     SUM(sf.quantity_sold) AS total_quantity_sold,
    ->     SUM(sf.sales_amount) AS total_sales_amount
    -> FROM
    ->     sales_fact_table sf
    -> JOIN
    ->     book_dimensions b ON sf.book_id = b.book_id
    -> JOIN
    ->     time t ON sf.time_id = t.time_id
    -> JOIN
    ->     store_dimensions s ON sf.store_id = s.store_id
    -> WHERE
    ->     t.year = 2020 -- Specify the year
    ->     AND b.title = 'abc' -- Specify the book title
    -> GROUP BY
    ->     s.store_name
    -> ORDER BY
    ->     s.store_name;
```

```
+------------+----------------------+--------------------+
| store_name | total_quantity_sold | total_sales_amount |
+------------+----------------------+--------------------+
| Store A    |                 1340 |          160000.00 |
+------------+----------------------+--------------------+
1 row in set (0.00 sec)
```

Slicing

```
mysql> SELECT s.store_name, SUM(sf.quantity_sold) AS total_quantity_sold,SUM(sf.sales_amount) AS total_sales_amount
    -> FROM sales_fact_table sf
    -> JOIN book_dimensions b ON sf.book_id = b.book_id
    -> JOIN store_dimensions s ON sf.store_id = s.store_id
    -> WHERE b.title = 'abc'
    -> GROUP BY
    ->     s.store_name
    -> ORDER BY
    ->     s.store_name;
+------------+----------------------+--------------------+
```

```
+------------+----------------------+--------------------+
| store_name | total_quantity_sold | total_sales_amount |
+------------+----------------------+--------------------+
| Store A    |                 1340 |          160000.00 |
| Store C    |                  220 |           95000.00 |
+------------+----------------------+--------------------+
2 rows in set (0.00 sec)
```

Dicing

```
mysql> SELECT
    ->     s.store_name,
    ->     SUM(sf.quantity_sold) AS total_quantity_sold,
    ->     SUM(sf.sales_amount) AS total_sales_amount
    -> FROM
    ->     sales_fact_table sf
    -> JOIN
    ->     book_dimensions b ON sf.book_id = b.book_id
    -> JOIN
    ->     time t ON sf.time_id = t.time_id
    -> JOIN
    ->     store_dimensions s ON sf.store_id = s.store_id
    -> WHERE
    ->     b.title = 'abc'  -- Specify the book title
    ->     AND t.year = 2020  -- Specify the year
    -> GROUP BY
    ->     s.store_name
    -> ORDER BY
    ->     s.store_name;
```

```
+------------+----------------------+--------------------+
| store_name | total_quantity_sold | total_sales_amount |
+------------+----------------------+--------------------+
| Store A    |                 1340 |          160000.00 |
+------------+----------------------+--------------------+
1 row in set (0.00 sec)

mysql> sc
```