



Department of Computer Science and Engineering
Data Science

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Semester: V

Class / Branch: CSE(DS)

Subject: DWM LAB

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Experiment No. 3**Aim:- To perform OLAP operations in SQL environment based on experiment 1 case study.****Problem Statement:**

Ticket Reservation data warehouse to keep records of sales with respect to dimensions like ticket_reservation, station, class, coach, passenger. These dimensions will keep track of things like sales, passenger details, station location, train details, number of tickets sold and amount earned.

OLAP Operations :

Silce:

```
mysql> select * from ticket_reservation natural join train where train_code = 5678;
```

train_code	PNR_no	from_date	to_date	train_name	start_time	end_time	train_id
5678	2233	0.001594370223651657	0.001649348507174666	gareebrath	9am	next_day_2pm	DEF102

```
1 row in set (0.00 sec)
```

```
mysql> select * from ticket_reservation where train_code = 5678;
```

PNR_no	train_code	from_date	to_date
2233	5678	0.001594370223651657	0.001649348507174666

```
1 row in set (0.00 sec)
```

```
mysql> slice;
```



Dice :

```
+-----+-----+-----+-----+-----+-----+-----+
| PNR_no | station_id | class_id | train_code | pas_id | no_of_tickets_sold | total_amount |
+-----+-----+-----+-----+-----+-----+-----+
| 2233   | B302      | 2        | 5678      | 12     | 24                 | 46000        |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

Roll-up :

```
mysql> select sum(total_amount) from fact_sales where train_code in (1234 , 9101112);
+-----+
| sum(total_amount) |
+-----+
| 481000            |
+-----+
1 row in set (0.00 sec)
```

Drill-down :

```
mysql> select train_code , station_id , sum(total_amount) as total_amoun_sum from fact_sales group by train_code , station_id;
+-----+-----+-----+
| train_code | station_id | total_amoun_sum |
+-----+-----+-----+
| 1234       | A101      | 56000           |
| 5678       | B302      | 46000           |
| 9101112    | D295      | 425000          |
| 13141516   | F534      | 189000          |
| 17181920   | Z206      | 23000           |
+-----+-----+-----+
5 rows in set (0.00 sec)
```