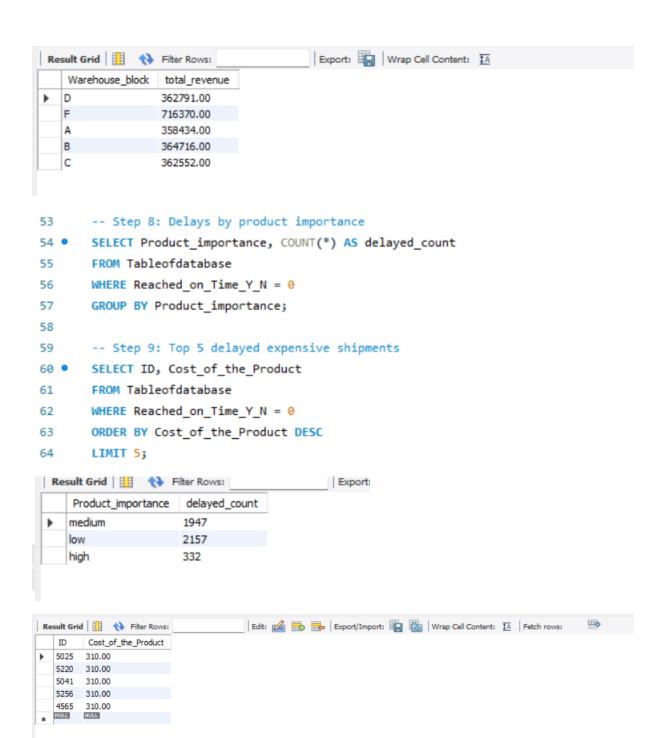


```
LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Train.csv'
27 •
28
       INTO TABLE Tableofdatabase
       FIELDS TERMINATED BY ','
       ENCLOSED BY ""
30
       LINES TERMINATED BY '\n'
31
       IGNORE 1 ROWS;
32
33
       -- Step 4: Data exploration queries
35 •
       SELECT * FROM Tableofdatabase LIMIT 10;
       SELECT COUNT(*) AS total shipments FROM Tableofdatabase;
                                           Export: Wrap Cell Content: TA
Result Grid Filter Rows:
    total_shipments
10999
       -- Step 5: Delivery status counts
38
       SELECT Reached_on_Time_Y_N AS delivery_status, COUNT(*) AS count
39 •
40
       FROM Tableofdatabase
       GROUP BY Reached on Time Y N;
41
42
43
       -- Step 6: Average cost per shipment method
       SELECT Mode_of_Shipment, AVG(Cost_of_the_Product) AS avg_cost
44 .
       FROM Tableofdatabase
45
46
       GROUP BY Mode of Shipment;
47
48
       -- Step 7: Revenue per warehouse (net)
49 •
       SELECT Warehouse_block, SUM(Cost_of_the_Product - Discount_offered) AS total_revenue
       FROM Tableofdatabase
50
51
       GROUP BY Warehouse block;
                                           Export: Wrap Cell Content: IA
 delivery_status
                  count
                  6563
    0
                  4436
Export: Wrap Cell Content: TA
    Mode_of_Shipment avg_cost
   Flight
                    209.306697
    Ship
                    210.343072
    Road
                    210.475568
```



```
-- Step 10: Subquery - above average product cost
66
         SELECT ID, Cost_of_the_Product
67 •
        FROM Tableofdatabase
68

⊖ WHERE Cost of the Product > (
69
           SELECT AVG(Cost_of_the_Product) FROM Tableofdatabase
70
       );
71
72
73
         -- Step 11: Create a view for high-value delayed shipments
74 •
         CREATE VIEW high_value_delays AS
         SELECT *
75
         FROM Tableofdatabase
76
77
         WHERE Reached_on_Time_Y_N = 0 AND Cost_of_the_Product > 250;
| Edit: 🕍 🖶 | Export/Import: 📳 📸 | Wrap Cell Content: 🏗 | Fetch rows:
       Cost_of_the_Product
   2
        216.00
   7
        250.00
        233.00
   12
       232.00
        275.00
   14
   16 227.00
   18
        227.00
   19 239.00
   22
        232.00
   24 211.00
   25
        251.00
   26
        225.00
   29
        234.00
   31 266.00
   32
        257.00
       223.00
   33
   34
        234.00
   35 227.00
   39
      215.00
| Edit: 🚄 🖶 | Export/Import: 📳 🐻 | Wrap Cell Content: 🏗 | Fetch rows:
  ID Cost_of_the_Product 2533 236.00
  2534 229.00
  2535 261.00
  2536 229.00
  2538 240.00
  2540 252.00
  2545 243.00
  2548 235.00
  2552 270.00
  2554 220.00
  2555 264.00
  2558 223.00
  2560 221.00
  2561 216.00
  2565 252.00
  2568 255.00
  2570 263.00
  2572 212.00
```

```
-- Step 12: Query the view
          SELECT * FROM high_value_delays;
80 .
81
82
           -- Step 13: Indexes for optimization
           CREATE INDEX idx warehouse ON Tableofdatabase(Warehouse block);
83 •
           CREATE INDEX idx_delivery ON Tableofdatabase(Reached_on_Time_Y_N);
84 .
85
          -- Step 14: EXPLAIN plan (for performance check)
86
           EXPLAIN SELECT * FROM Tableofdatabase WHERE Reached_on_Time_Y_N = 0;
87 •
88
                                                                                                                              Export: Wrap Cell Content: A Fetch rows:
  ID
       Warehouse_block | Mode_of_shipment | Customer_care_calls | Customer_rating | Cost_of_the_Product | Prior_purchases | Product_importance | Gender | Discount_offered
                                                                                                                            Weigł
 3141
                                                              256.00
                                                                                                                           4732
                    Road
                                                                                         medium
                                                                                                              3.00
                                                              253.00
                                                                                                                           5085
  3148
                    Flight
                                                              272.00
                                                                                                              6.00
                                                                                                                           4559
  3167 C
                    Flight
                                                              273.00
                                                                                         medium
                                                                                                              5.00
                                                                                                                           5055
  3174
                    Ship
                                                              272.00
                                                                                         high
                                                                                                              7.00
                                                                                                                           5927
                                                              274.00
                                                                                                                           5622
                                                                                         high
  3193
                    Ship
                                                              273.00
                                                                                         medium
                                                                                                              2.00
                                                                                                                           4374
  3195 A
                    Ship
                                                              273.00
                                                                                         low
                                                                                                              1.00
                                                                                                                           1293
  3198
                                                              296.00
                                                                                                              1.00
                                                                                                                           1678
                    Ship
                                                                                         medium
  3200
                                                              301.00
                                                                                                              6.00
                                                                                                                           1931
  3201
                    Ship
                                                              296.00
                                                                                         low
                                                                                                              4.00
                                                                                                                           1991
                                                                                         low
  3212 F
                                                              251.00
                                                                                                              4.00
                                                                                                                           4015
                    Ship
  3224
                                                              269.00
                                                                                                              3.00
                                                                                                                           4489
                    Ship
                                                                                         low
  3272
                                                              263.00
                                                                                         medium
                                                                                                              5.00
                                                                                                                           4595
  3292
                    Flight
                                                              270.00
                                                                                         high
                                                                                                              10.00
                                                                                                                           5360
                                                                                                       М
                                                                                                              9.00
                                                                                                                           5088
  3294 F
                    Flight
                                                              257.00
                                                                                         medium
  3310
                                                              271.00
                                                                                         medium
                                                                                                                           4137
                    Ship
  3319 D
                    Ship
                                                              254.00
                                                                                                              1.00
                                                                                                                           4334
  3335
                    Ship
                                                              266.00
                                                                                         low
                                                                                                              10.00
                                                                                                                           4140
                                                              272.00
  3340
                                                                                                                           5252
                    Ship
                                                                                                              5.00
```

ref rows filtered Extra const 4436 100.00

key_len ref

Export: Wrap Cell Content: 1A

ref idx_delivery idx_delivery 2

partitions type possible_keys key

NULL

Tableofdatabase

Result Grid Filter Rows:

id select_type table

SIMPLE