

E-commerce sql queries and outputs

➤ Using tables in E-Commerce database

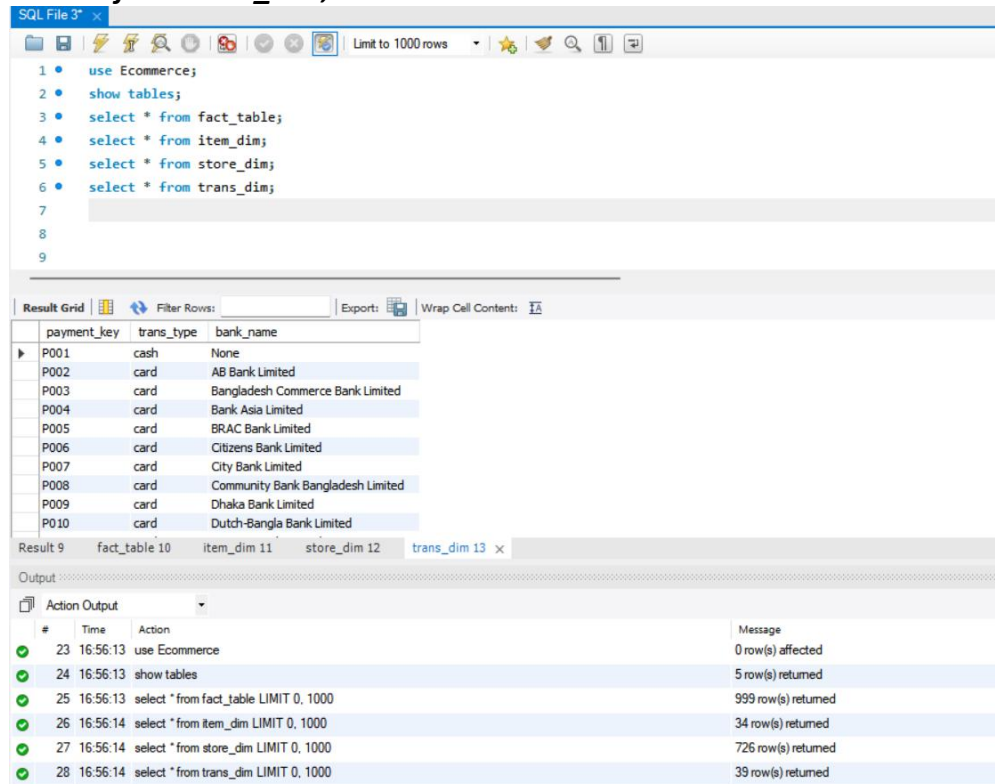
use ecommerce;

*select * from fact_table;*

*select * from item_dim;*

*select * from store_dim;*

*select * from trans_dim;*



The screenshot shows a SQL client interface with a query editor and a results pane. The query editor contains the following SQL statements:

```
1 • use Ecommerce;
2 • show tables;
3 • select * from fact_table;
4 • select * from item_dim;
5 • select * from store_dim;
6 • select * from trans_dim;
```

The results pane displays the output of the 'show tables' query, showing a table with columns 'payment_key', 'trans_type', and 'bank_name'. The table contains 10 rows of data, including 'P001' through 'P010'.

| payment_key | trans_type | bank_name |
|-------------|------------|-----------------------------------|
| P001 | cash | None |
| P002 | card | AB Bank Limited |
| P003 | card | Bangladesh Commerce Bank Limited |
| P004 | card | Bank Asia Limited |
| P005 | card | BRAC Bank Limited |
| P006 | card | Citizens Bank Limited |
| P007 | card | City Bank Limited |
| P008 | card | Community Bank Bangladesh Limited |
| P009 | card | Dhaka Bank Limited |
| P010 | card | Dutch-Bangla Bank Limited |

The results pane also shows the output of the other queries, indicating the number of rows returned for each:

| # | Time | Action | Message |
|----|----------|--|---------------------|
| 23 | 16:56:13 | use Ecommerce | 0 row(s) affected |
| 24 | 16:56:13 | show tables | 5 row(s) returned |
| 25 | 16:56:13 | select * from fact_table LIMIT 0, 1000 | 999 row(s) returned |
| 26 | 16:56:14 | select * from item_dim LIMIT 0, 1000 | 34 row(s) returned |
| 27 | 16:56:14 | select * from store_dim LIMIT 0, 1000 | 726 row(s) returned |
| 28 | 16:56:14 | select * from trans_dim LIMIT 0, 1000 | 39 row(s) returned |

➤ Displaying the division, district, upazila from store_dim where division is SYLHET" and district MAULVIBAZAR *select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR";*

Query 1 x

```

1 • use ecommerce;
2 • select * from fact_table;
3 • select * from item_dim;
4 • select * from store_dim;
5 • select * from trans_dim;
6
7 • select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR";
8 • select * from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG");
9 • select item_name, desce, man_country, unit_price from item_dim order by unit_price;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Contents: |

| | division | district | upazila |
|---|----------|-------------|-------------------|
| ▶ | SYLHET | MAULVIBAZAR | BARLEKHA |
| | SYLHET | MAULVIBAZAR | JURI |
| | SYLHET | MAULVIBAZAR | KAMALGANJ |
| | SYLHET | MAULVIBAZAR | KULLAURA |
| | SYLHET | MAULVIBAZAR | MAULVIBAZAR SADAR |
| | SYLHET | MAULVIBAZAR | RAJNAGAR |
| | SYLHET | MAULVIBAZAR | SREEMANGAL |

store_dim 35 x

Output

Action Output

| # | Time | Action | Message |
|----|----------|--|---------------------|
| 36 | 17:41:53 | select * from store_dim LIMIT 0, 1000 | 726 row(s) returned |
| 37 | 17:41:53 | select * from trans_dim LIMIT 0, 1000 | 39 row(s) returned |
| 38 | 17:41:53 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |
| 39 | 17:41:53 | select * from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |
| 40 | 17:41:53 | select item_name, desce, man_country, unit_price from item_dim order by unit_price LIMIT 0, 1000 | 34 row(s) returned |
| 41 | 17:41:58 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |

- Displaying information of stores only in
 "RANGPUR","SYLHET","KHULNA","CHITTAGONG"
***select * from store_dim where division in
 ("RANGPUR","SYLHET","KHULNA","CHITTAGONG");***

Query 1 x

```

1 • use ecommerce;
2 • select * from fact_table;
3 • select * from item_dim;
4 • select * from store_dim;
5 • select * from trans_dim;
6
7 • select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR";
8 • select * from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG");
9 • select item_name, desce, man_country, unit_price from item_dim order by unit_price;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Contents: |

| | store_key | division | district | upazila |
|---|-----------|----------|-------------|----------------|
| ▶ | S0001 | SYLHET | HABIGANJ | AJMIRIGANJ |
| | S0002 | SYLHET | HABIGANJ | BAHUBAL |
| | S0003 | SYLHET | HABIGANJ | BANIACHONG |
| | S0004 | SYLHET | HABIGANJ | CHUNARUGHAT |
| | S0005 | SYLHET | HABIGANJ | HABIGANJ SADAR |
| | S0006 | SYLHET | HABIGANJ | LAKHAI |
| | S0007 | SYLHET | HABIGANJ | MADHABPUR |
| | S0008 | SYLHET | HABIGANJ | NABIGANJ |
| | S0009 | SYLHET | MAULVIBAZAR | BARLEKHA |
| | S0010 | SYLHET | MAULVIBAZAR | JURI |

store_dim 36 x

Output

Action Output

| # | Time | Action | Message |
|----|----------|--|---------------------|
| 37 | 17:41:53 | select * from trans_dim LIMIT 0, 1000 | 39 row(s) returned |
| 38 | 17:41:53 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |
| 39 | 17:41:53 | select * from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |
| 40 | 17:41:53 | select item_name, desce, man_country, unit_price from item_dim order by unit_price LIMIT 0, 1000 | 34 row(s) returned |
| 41 | 17:41:58 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |
| 42 | 17:42:19 | select * from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |

- Displaying the information in the order od unit_price
select item_name, desce, man_country, unit_price from item dim order by unit_price;

Query 1

```

1 • use ecommerce;
2 • select * from fact_table;
3 • select * from item_dim;
4 • select * from store_dim;
5 • select * from trans_dim;
6
7 • select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR";
8 • select * from store_dim where division in ("RANGPUR", "SYLHET", "KHULNA", "CHITTAGONG");
9 • select item_name, desce, man_country, unit_price from item_dim order by unit_price;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 1A

| item_name | desce | man_country | unit_price |
|---------------------------------|--------------------|-------------|------------|
| Fresca Original - 12 oz cans | a. Beverage - Soda | India | 6.75 |
| A&W Root Beer Diet - 12 oz cans | a. Beverage - Soda | poland | 6.75 |
| Barq's Root Beer - 12 oz cans | a. Beverage - Soda | Bangladesh | 6.75 |
| Cherry Coke 12oz | a. Beverage - Soda | Netherlands | 6.75 |
| Cherry Coke Zero 12 pack | a. Beverage - Soda | Finland | 6.75 |
| Sprite - 12 oz cans | a. Beverage - Soda | Lithuania | 6.75 |
| Coke Classic 12 oz cans | a. Beverage - Soda | India | 6.75 |
| Pepsi - 12 oz cans | a. Beverage - Soda | Cambodia | 6.75 |
| Hawaiian Punch - 12 oz cans | a. Beverage - Soda | Germany | 6.75 |
| Diet Coke - 12 oz cans | a. Beverage - Soda | Lithuania | 6.75 |

item_dim 37

Output

Action Output

| # | Time | Action | Message |
|------|----------|--|---------------------|
| ✓ 38 | 17:41:53 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |
| ✓ 39 | 17:41:53 | select * from store_dim where division in ("RANGPUR", "SYLHET", "KHULNA", "CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |
| ✓ 40 | 17:41:53 | select item_name, desce, man_country, unit_price from item_dim order by unit_price LIMIT 0, 1000 | 34 row(s) returned |
| ✓ 41 | 17:41:58 | select division, district, upazila from store_dim where division= "SYLHET" and district = "MAULVIBAZAR" LIM... | 7 row(s) returned |
| ✓ 42 | 17:42:19 | select * from store_dim where division in ("RANGPUR", "SYLHET", "KHULNA", "CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |
| ✓ 43 | 17:42:41 | select item_name, desce, man_country, unit_price from item_dim order by unit_price LIMIT 0, 1000 | 34 row(s) returned |

- Displaying the disticts where tge total_price is above 500
*select store_key ,district
from store_dim
where store_key
in (
select sum(store_key)
from fact_table
where total_price >=500
);*

Query 1

```

10 select store_key, district
11 from fact_table
12 where store_key
13 in (
14 select sum(store_key)
15 from fact_table
16 where total_price >=500
17 );
18

```

Result Grid

| store_key | district |
|-----------|-------------|
| S0001 | HABIGANJ |
| S0002 | HABIGANJ |
| S0003 | HABIGANJ |
| S0004 | HABIGANJ |
| S0005 | HABIGANJ |
| S0006 | HABIGANJ |
| S0007 | HABIGANJ |
| S0008 | HABIGANJ |
| S0009 | MAULVIBAZAR |
| S0010 | MAULVIBAZAR |

store_dim 47 x

Output

Action Output

| # | Time | Action | Message |
|----|----------|---|--|
| 50 | 17:51:23 | select store_key, district, total_price from store_dim where store_key in (select store_key from fact_table where ... | Error Code: 1054. Unknown column 'total_price' in 'field list' |
| 51 | 17:51:36 | select store_key, district from store_dim where store_key in (select store_key from fact_table where total_price ... | 326 row(s) returned |
| 52 | 17:52:04 | select store_key, district from store_dim where store_key in (select sum(store_key) from fact_table where total_... | 726 row(s) returned |
| 53 | 17:52:04 | select store_key, district from store_dim where store_key in (select sum(store_key) from fact_table where total_... | 726 row(s) returned |
| 54 | 17:52:17 | select store_key, district from store_dim where store_key in (select sum(store_key) from fact_table where total_... | 0 row(s) returned |
| 55 | 17:52:27 | select store_key, district from store_dim where store_key in (select sum(store_key) from fact_table where total_... | 726 row(s) returned |

➤ Displaying the count of countries based the beverages sold

```

select desce, count(man_country)
from item_dim
group by desce;

```

Query 1

```

17 );
18
19 select desce, count(man_country)
20 from item_dim
21 group by desce;
22
23
24
25

```

Result Grid

| desce | count(man_country) |
|-----------------------------|--------------------|
| a. Beverage - Soda | 29 |
| a. Beverage Sparkling Water | 5 |

Result 76 x

Output

Action Output

| # | Time | Action | Message |
|----|----------|--|--|
| 87 | 18:05:47 | select " from store_dim where division in ("RANGPUR","SYLHET","KHULNA","CHITTAGONG") LIMIT 0, 1000 | 310 row(s) returned |
| 88 | 18:05:47 | select item_name, desce, man_country, unit_price from item_dim order by unit_price LIMIT 0, 1000 | 34 row(s) returned |
| 89 | 18:05:47 | select store_key, district from store_dim where store_key in (select sum(store_key) from fact_table where tot... | 726 row(s) returned |
| 90 | 18:05:47 | select man_country, count(man_country) from item_dim group by man_country LIMIT 0, 1000 | 10 row(s) returned |
| 91 | 18:06:13 | select desce, count(man_country) from item_dim group by man_country LIMIT 0, 1000 | Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contain |
| 92 | 18:06:29 | select desce, count(man_country) from item_dim group by desce LIMIT 0, 1000 | 2 row(s) returned |

➤ Creating a view

create view item_detail as

*select fact_table.item_key,item_dim.item_name,item_dim.desce,item_dim.supplier,
fact_table.quantity,fact_table.unit,fact_table.total_price
from fact_table join item_dim on fact_table.item_key = item_dim.item_key ;*

The screenshot shows a query editor with the following SQL code:

```

25
26 • create view item_detail as
27 select fact_table.item_key ,item_dim.item_name,item_dim.desce,item_dim.supplier, fact_table.quantity,fact_table.unit,fact_table.total_price
28 from fact_table
29 join item_dim on fact_table.item_key = item_dim.item_key ;
30
31 • select * from item_detail;
32
33

```

The results grid shows the following data:

| item_key | item_name | desce | man_country | supplier | quantity | unit | unit_price | total_price |
|----------|-------------------------------------|-----------------------------|-------------|--------------------------------|----------|------|------------|-------------|
| 100017 | Fresca Black Cherry - 12 oz cans | a. Beverage - Soda | Cambodia | NINGBO SEDUNO IMP & EXP CO.LTD | 11 | cans | 6.75 | 74 |
| 100023 | Pepsi - 12 oz cans | a. Beverage - Soda | Cambodia | NINGBO SEDUNO IMP & EXP CO.LTD | 10 | cans | 6.75 | 68 |
| 100017 | Fresca Black Cherry - 12 oz cans | a. Beverage - Soda | Cambodia | NINGBO SEDUNO IMP & EXP CO.LTD | 7 | cans | 6.75 | 47 |
| 100018 | Fresca Original - 12 oz cans | a. Beverage - Soda | India | Indo Count Industries Ltd | 1 | cans | 6.75 | 7 |
| 100033 | La Croix Sparkling Grapefruit 12 oz | a. Beverage Sparkling Water | poland | CHROMADURLIN S.A.S | 7 | cans | 16 | 112 |
| 100003 | Barg's Root Beer - 12 oz cans | a. Beverage - Soda | Bangladesh | DENIMACH LTD | 8 | cans | 6.75 | 54 |
| 100007 | Coke Classic 12 oz cans | a. Beverage - Soda | India | Indo Count Industries Ltd | 1 | cans | 6.75 | 7 |
| 100007 | Coke Classic 12 oz cans | a. Beverage - Soda | India | Indo Count Industries Ltd | 10 | cans | 6.75 | 68 |
| 100028 | Sprite Zero - 12 pack | a. Beverage - Soda | poland | CHROMADURLIN S.A.S | 3 | cans | 6.75 | 20 |
| 100010 | Diet Coke - 12 oz cans | a. Beverage - Soda | Lithuania | BIGSO AB | 3 | cans | 6.75 | 20 |

The output pane shows the following messages:

- 106 18:30:28 create view item_info as select fact_table.item_key ,item_dim.item_name from fact_table inner join item_dim on ... Error Code: 1146. Table 'ecommerce fact_tableinner' doesn't exist
- 107 18:31:10 create view item_info as select fact_table.item_key ,item_dim.item_name from fact_table join item_dim on fact_t... 0 row(s) affected
- 108 18:32:09 create view item_detail as select fact_table.item_key ,item_dim.item_name,item_dim.desce,item_dim.amn_co... Error Code: 1054. Unknown column 'item_dim.amn_country' in field list
- 109 18:32:28 create view item_detail as select fact_table.item_key ,item_dim.item_name,item_dim.desce,item_dim.man_co... 0 row(s) affected
- 110 18:33:20 select * from item_info LIMIT 0, 1000 121 row(s) returned
- 111 18:33:30 select * from item_detail LIMIT 0, 1000 121 row(s) returned

➤ Finding the total quantity sold and the total price

*select man_country,sum(quantity) "total quantity sold",sum(total_price) "total price
recieved " from item_detail group by man_country;*

The screenshot shows a query editor with the following SQL code:

```

26 • create view item_detail as
27 select fact_table.item_key ,item_dim.item_name,item_dim.desce,item_dim.supplier, fact_table.quantity,fact_table.unit,fact_table.total_price
28 from fact_table join item_dim on fact_table.item_key = item_dim.item_key ;
29
30 • select * from item_detail;
31 • select man_country,sum(quantity) "total quantity sold",sum(total_price) "total price "
32 from item_detail group by man_country;
33
34

```

The results grid shows the following data:

| man_country | total quantity sold | total price |
|---------------|---------------------|-------------|
| Cambodia | 106 | 800 |
| India | 75 | 708 |
| poland | 142 | 1400 |
| Bangladesh | 65 | 579 |
| Lithuania | 53 | 529 |
| Netherlands | 92 | 1174 |
| Finland | 82 | 657 |
| China | 55 | 730 |
| United States | 45 | 305 |
| Germany | 26 | 243 |

The output pane shows the following messages:

- 113 18:40:10 select man_country,sum(total_price) from item_detail group by man_country LIMIT 0, 1000 10 row(s) returned
- 114 18:40:34 select man_country,unit_price,sum(total_price) from item_detail group by man_country LIMIT 0, 1000 Error Code: 1055. Expression #2 of SELECT list is not in GROUP BY clause and contains non
- 115 18:41:08 select man_country,count(unit_price),(total_price) from item_detail group by man_country LIMIT 0, 1000 Error Code: 1055. Expression #3 of SELECT list is not in GROUP BY clause and contains non
- 116 18:41:26 select * from item_detail LIMIT 0, 1000 121 row(s) returned
- 117 18:42:15 select man_country,sum(quantity),sum(total_price) from item_detail group by man_country LIMIT 0, 1000 10 row(s) returned
- 118 18:44:23 select man_country,sum(quantity) "total quantity sold",sum(total_price) "total price " from item_detail group by m... 10 row(s) returned

➤ Joining 3 tables for better understanding

select

```
fact_table.item_key,item_dim.item_name,fact_table.quantity,fact_table.total_price,fact_table.payment_key,trans_dim.trans_type,trans_dim.bank_name  
from fact_table  
join item_dim on fact_table.item_key= item_dim.item_key  
join trans_dim on fact_table.payment_key = trans_dim.payment_key;
```

The screenshot shows a SQL query editor with a query window and a results grid. The query is as follows:

```
select fact_table.item_key,item_dim.item_name,fact_table.quantity,fact_table.total_price,fact_table.payment_key,trans_dim.trans_type,trans_dim.bank_name  
from fact_table  
join item_dim on fact_table.item_key= item_dim.item_key  
join trans_dim on fact_table.payment_key = trans_dim.payment_key;
```

The results grid displays the following data:

| item_key | item_name | quantity | total_price | payment_key | trans_type | bank_name |
|----------|-------------------------------------|----------|-------------|-------------|------------|--|
| I00017 | Fresca Black Cherry - 12 oz cans | 11 | 74 | P025 | card | Padma Bank Limited |
| I00023 | Pepsi - 12 oz cans | 10 | 68 | P030 | card | Shimanto Bank Ltd |
| I00017 | Fresca Black Cherry - 12 oz cans | 7 | 47 | P001 | cash | None |
| I00018 | Fresca Original - 12 oz cans | 1 | 7 | P036 | card | Bengal Commercial Bank Ltd |
| I00033 | La Croix Sparkling Grapefruit 12 oz | 7 | 112 | P020 | card | National Credit & Commerce Bank Limited |
| I00003 | Bard's Root Beer - 12 oz cans | 8 | 54 | P028 | card | Pubali Bank Limited |
| I00007 | Coke Classic 12 oz cans | 1 | 7 | P028 | card | Pubali Bank Limited |
| I00007 | Coke Classic 12 oz cans | 10 | 68 | P035 | card | Uttara Bank Limited |
| I00028 | Sprite Zero - 12 pack | 3 | 20 | P032 | card | South Bangla Agriculture and Commerce Bank Li... |
| I00010 | Diet Coke - 12 oz cans | 3 | 20 | P028 | card | Pubali Bank Limited |

The output window shows the following messages:

```
# Time Action Message  
122 18:50:20 select * from fact_table LIMIT 0, 1000 999 row(s) returned  
123 18:52:24 select * from trans_dim LIMIT 0, 1000 39 row(s) returned  
124 18:52:57 select * from item_dim LIMIT 0, 1000 34 row(s) returned  
125 19:01:47 select f.item_key,i.item_name,f.quantity,f.total_price,f.payment_key,t.trans_type,t.bank_name,from fact_table f ... Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to ...  
126 19:04:50 select * from fact_table LIMIT 0, 1000 999 row(s) returned  
127 19:06:10 select fact_table.item_key, item_dim.item_name, fact_table.quantity, fact_table.total_price, fact_table.payment... 121 row(s) returned
```

➤ Creating index

create INDEX idx_payment_item on fact_table(item_name(10), quantity(10));

explain

select

```
fact_table.item_key,item_dim.item_name,fact_table.quantity,fact_table.total_price,fact_table.payment_key,trans_dim.trans_type,trans_dim.bank_name  
from fact_table  
join item_dim on fact_table.item_key= item_dim.item_key
```

join trans_dim on fact_table.payment_key = trans_dim.payment_key
;

Query 1

```

39
40 • create INDEX idx_payment_item on fact_table(item_name(10), quantity(10));
41 • explain
42 select fact_table.item_key,item_dim.item_name,fact_table.quantity,fact_table.total_price,fact_table.payment_key,trans_dim.trans_type,trans_dim
43 from fact_table
44 join item_dim on fact_table.item_key= item_dim.item_key
45 join trans_dim on fact_table.payment_key = trans_dim.payment_key
46 ;
47

```

Result Grid

| id | select_type | table | partitions | type | possible_keys | key | key_len | ref | rows | filtered | Extra |
|----|-------------|------------|------------|-------------------------------|------------------|-----|---------|---|------|----------|-------------|
| 1 | SIMPLE | item_dim | ALL | ALL | | | | | 34 | 100.00 | Using where |
| 1 | SIMPLE | trans_dim | ALL | ALL | | | | | 39 | 100.00 | Using where |
| 1 | SIMPLE | fact_table | ref | idx_payment_item,payment_item | idx_payment_item | 166 | | ecommerce.trans_dim.payment_key,ecommerc... | 1 | 100.00 | Using where |

Result 116

Output

Action Output

| # | Time | Action | Message |
|-----|----------|--|---|
| 157 | 19:26:03 | create INDEX payment_item on fact_table(payment_key(10), item_key(10)) | Error Code: 1061. Duplicate key name 'payment_item' |
| 158 | 19:26:03 | create INDEX payment_item on fact_table(payment_key(10), item_key(10)) | Error Code: 1061. Duplicate key name 'payment_item' |
| 159 | 19:26:32 | create INDEX payment_item on fact_table(payment_key(10), quantity(10)) | Error Code: 1061. Duplicate key name 'payment_item' |
| 160 | 19:26:53 | create INDEX payment_item on fact_table(item_name(10), quantity(10)) | Error Code: 1061. Duplicate key name 'payment_item' |
| 161 | 19:27:14 | create INDEX idx_payment_item on fact_table(item_name(10), quantity(10)) | Error Code: 1061. Duplicate key name 'idx_payment_item' |
| 162 | 19:28:28 | explain select fact_table.item_key,item_dim.item_name,fact_table.quantity,fact_table.total_price,fact_table.pay... | [3 row(s)] returned |