

Name: Sampada
Bhadane
Moodle ID: 20102192
Roll No : 11
Div: A

Experiment 2

Creation of dimension tables (agent_dim, warehouse_dim, time_dim, item_dim):

```
Activities Terminal Tue 16:19
apsit@apsit-HP-280-G2-SFF: ~
File Edit View Search Terminal Help

apsit@apsit-HP-280-G2-SFF:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 5.7.37-0ubuntu0.18.04.1 (Ubuntu)

Copyright (c) 2000, 2022, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use tea;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> create table agent_dim(agent_ID int primary key, name varchar(200),mode_of_transporation varchar(200));
Query OK, 0 rows affected (0.24 sec)

mysql> insert into agent_dim values (001,'Suyash Exports', 'Airways');
Query OK, 1 row affected (0.03 sec)

mysql> insert into agent_dim values (002,'Harish Exports and Co.', 'Waterways');
Query OK, 1 row affected (0.04 sec)

mysql> insert into agent_dim values (003,'Soc Pvt Ltd', 'Roadways');
Query OK, 1 row affected (0.04 sec)

mysql> insert into agent_dim values (004,'Fale and Brothers', 'Airways');
Query OK, 1 row affected (0.04 sec)

mysql> select * from agent_dim;
+-----+-----+-----+
| agent_ID | name           | mode_of_transporation |
+-----+-----+-----+
| 1        | Suyash Exports | Airways               |
| 2        | Harish Exports and Co. | Waterways            |
| 3        | Soc Pvt Ltd    | Roadways              |
| 4        | Fale and Brothers | Airways               |
+-----+-----+-----+
```

```
Activities Terminal Tue 16:19
apsit@apsit-HP-280-G2-SFF: ~
File Edit View Search Terminal Help

mysql> select * from agent_dim;
+-----+-----+-----+
| agent_ID | name           | mode_of_transporation |
+-----+-----+-----+
| 1        | Suyash Exports | Airways               |
| 2        | Harish Exports and Co. | Waterways            |
| 3        | Soc Pvt Ltd    | Roadways              |
| 4        | Fale and Brothers | Airways               |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> create table warehouse_dim(W_D_ID int primary key, location varchar(200),capacity int);
Query OK, 0 rows affected (0.21 sec)

mysql> insert into warehouse_dim values (103,'Delhi', 100000);
Query OK, 1 row affected (0.04 sec)

mysql> insert into warehouse_dim values (24,'Pune', 500000);
Query OK, 1 row affected (0.03 sec)

mysql> insert into warehouse_dim values (21,'Mumbai', 130000);
Query OK, 1 row affected (0.03 sec)

mysql> insert into warehouse_dim values (210,'Hyderabad', 80000);
Query OK, 1 row affected (0.03 sec)

mysql> select * from warehouse_dim;
+-----+-----+-----+
| W_D_ID | location      | capacity |
+-----+-----+-----+
| 21     | Mumbai       | 130000   |
| 24     | Pune         | 500000   |
| 103    | Delhi        | 100000   |
| 210    | Hyderabad    | 80000    |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```

mysql> create table warehouse_dim(time_ID int primary key,date int, month varchar(200),year int);
ERROR 1050 (42501): Table 'warehouse_dim' already exists
mysql> create table time_dim(time_ID int primary key,date int, month varchar(200),year int);
Query OK, 0 rows affected (0.19 sec)

mysql> insert into time_dim values (001,01,'February', 2018);
Query OK, 1 row affected (0.04 sec)

mysql> insert into time_dim values (002,16,'July', 2020);
Query OK, 1 row affected (0.04 sec)

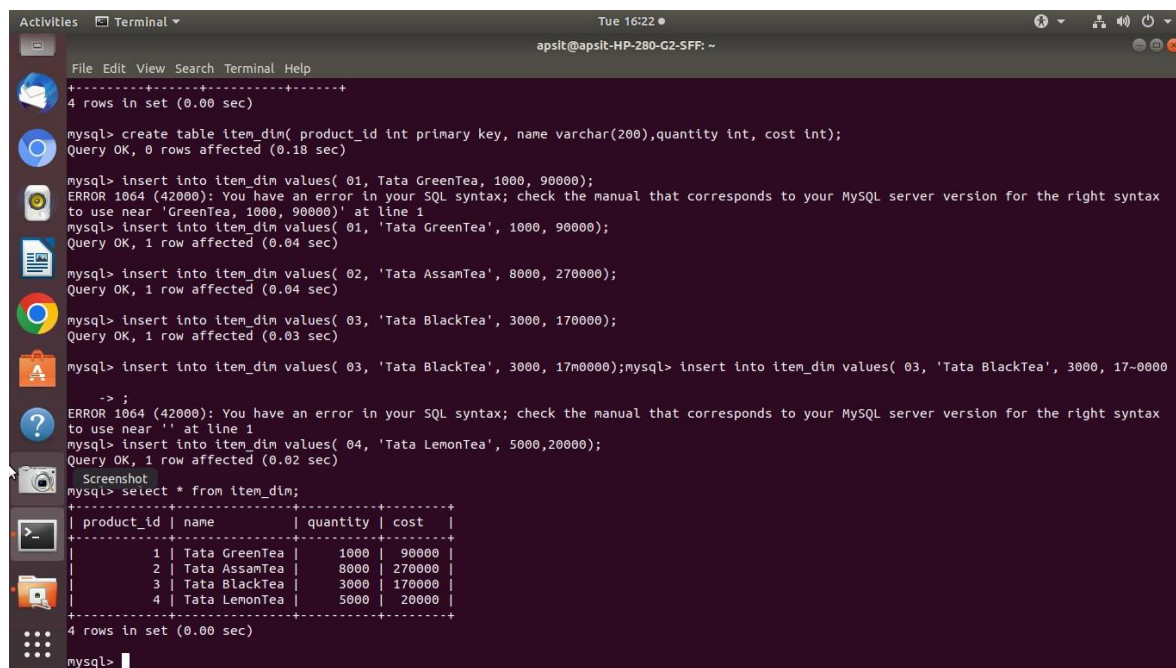
mysql> insert into time_dim values (003,10,'December', 2021);
Query OK, 1 row affected (0.03 sec)

mysql> insert into time_dim values (004,08,'May', 2019);
Query OK, 1 row affected (0.04 sec)

mysql> select * from time_dim;
+-----+-----+-----+-----+
| time_ID | date | month   | year |
+-----+-----+-----+-----+
| 1       | 1    | February | 2018 |
| 2       | 16   | July    | 2020 |
| 3       | 10   | December | 2021 |
| 4       | 8    | May     | 2019 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> create table item_dim( product_id int primary key, name varchar(200),quantity int, cost int);
Query OK, 0 rows affected (0.18 sec)

```



```

File Edit View Search Terminal Help
apsit@apsit-HP-280-G2-SFF: ~
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> create table item_dim( product_id int primary key, name varchar(200),quantity int, cost int);
Query OK, 0 rows affected (0.18 sec)

mysql> insert into item_dim values( 01, Tata GreenTea, 1000, 90000);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'GreenTea, 1000, 90000)' at line 1
mysql> insert into item_dim values( 01, 'Tata GreenTea', 1000, 90000);
Query OK, 1 row affected (0.04 sec)

mysql> insert into item_dim values( 02, 'Tata AssamTea', 8000, 270000);
Query OK, 1 row affected (0.04 sec)

mysql> insert into item_dim values( 03, 'Tata BlackTea', 3000, 170000);
Query OK, 1 row affected (0.03 sec)

mysql> insert into item_dim values( 03, 'Tata BlackTea', 3000, 17m0000);mysql> insert into item_dim values( 03, 'Tata BlackTea', 3000, 17-0000
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near '' at line 1
mysql> insert into item_dim values( 04, 'Tata LemonTea', 5000,20000);
Query OK, 1 row affected (0.02 sec)

Screenshot
mysql> select * from item_dim;
+-----+-----+-----+-----+
| product_id | name       | quantity | cost |
+-----+-----+-----+-----+
| 1          | Tata GreenTea | 1000     | 90000 |
| 2          | Tata AssamTea | 8000     | 270000 |
| 3          | Tata BlackTea | 3000     | 170000 |
| 4          | Tata LemonTea | 5000     | 20000 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>

```

Creation of fact table (export_fact):

```
Activities Terminal Tue 16:17 ●
apsit@apsit-HP-280-G2-SFF: ~
File Edit View Search Terminal Help

mysql> create table export_fact( export_id int primary key, total_cost int, unit_export int,agent_ID int, time_ID int, W_D_ID int, product_ID
int, foreign key(agent_ID) references agent_dim(agent_ID), foreign key(product_ID) references item_dim(product_ID),foreign key(W_D_ID) referen
ces warehouse_dim(W_D_ID),foreign key(time_ID) references time_dim(time_ID));
Query OK, 0 rows affected (0.39 sec)

mysql> insert into export_fact values (1, 100000, 6000, 2, 4, 103, 1);
Query OK, 1 row affected (0.13 sec)

mysql> insert into export_fact values (1, 100000, 6000, 3, 4, 210, 4);
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
mysql> insert into export_fact values (2, 3000000, 20000, 3, 4, 210, 4);
Query OK, 1 row affected (0.06 sec)

mysql> insert into export_fact values (3, 325000, 20000, 1, 2, 21, 2);
Query OK, 1 row affected (0.05 sec)

mysql> insert into export_fact values (4, 48009000, 1600, 3, 3, 21, 1);
Query OK, 1 row affected (0.04 sec)

mysql> insert into export_fact values (5, 80000, 600, 2, 1, 24,3 );
Query OK, 1 row affected (0.04 sec)

mysql> insert into export_fact values (6, 180000, 1000, 4, 3, 210 ,2 );
Query OK, 1 row affected (0.03 sec)

mysql> insert into export_fact values (7, 9000000, 9000, 2, 3, 103 ,1 );
Query OK, 1 row affected (0.03 sec)

mysql> insert into export_fact values (8, 50000, 300, 1, 1, 21 ,4);
Query OK, 1 row affected (0.03 sec)

mysql> insert into export_fact values (9, 250000, 900, 1, 2, 24 ,3);
Query OK, 1 row affected (0.03 sec)

mysql> insert into export_fact values (10, 1250000, 2000, 3, 3, 103 ,3);
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from export_fact;
+-----+-----+-----+-----+-----+-----+-----+
| export_id | total_cost | unit_export | agent_ID | time_ID | W_D_ID | product_ID |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | 100000 | 6000 | 2 | 4 | 103 | 1 |
| 2 | 3000000 | 20000 | 3 | 4 | 210 | 4 |
| 3 | 325000 | 20000 | 1 | 2 | 21 | 2 |
| 4 | 48009000 | 1600 | 3 | 3 | 21 | 1 |
| 5 | 80000 | 600 | 2 | 1 | 24 | 3 |
| 6 | 180000 | 1000 | 4 | 3 | 210 | 2 |
| 7 | 9000000 | 9000 | 2 | 3 | 103 | 1 |
| 8 | 50000 | 300 | 1 | 1 | 21 | 4 |
| 9 | 250000 | 900 | 1 | 2 | 24 | 3 |
| 10 | 1250000 | 2000 | 3 | 3 | 103 | 3 |
+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

Queries:

```
mysql> select max(total_cost),min(total_cost),year from export_fact as E, time_dim as T where E.time_ID = T.time_ID group by year;
+-----+-----+-----+
| max(total_cost) | min(total_cost) | year |
+-----+-----+-----+
| 80000 | 50000 | 2018 |
| 3000000 | 100000 | 2019 |
| 325000 | 250000 | 2020 |
| 48009000 | 180000 | 2021 |
+-----+-----+-----+
4 rows in set (0.04 sec)
```

```
mysql> select count(product_ID) from export_fact where product_ID = 2;
+-----+
| count(product_ID) |
+-----+
| 2 |
+-----+
1 row in set (0.02 sec)
```

```
mysql> select max(unit_export) from export_fact order by time_ID;
+-----+
| max(unit_export) |
+-----+
|          20000 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select max(total_cost), name from export_fact as E, item_dim as I where E.product_ID = I.product_ID group by name;
+-----+-----+
| max(total_cost) | name |
+-----+-----+
|          325000 | Tata AssamTea |
|         1250000 | Tata BlackTea |
|        48009000 | Tata GreenTea |
|        30000000 | Tata LemonTea |
+-----+-----+
4 rows in set (0.02 sec)
```