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Class / Branch: TE	**Date Of Performance:29-7-24**
Subject: DWM	
Date Of Submission:29-4-24	
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Experiment No. 2

Aim:- Implementation of all dimension tables and fact tables based on experiment 1 case study.

Output:-

sales fact table

```
------------------------------------------------------------+
| sales_fact_table | CREATE TABLE `sales_fact_table` (
  `time_id` int DEFAULT NULL,
  `customer_id` int DEFAULT NULL,
  `book_id` int DEFAULT NULL,
  `store_id` int DEFAULT NULL,
  `quantity_sold` int DEFAULT NULL,
  `sales_amount` decimal(10,2) DEFAULT NULL,
  `profit` decimal(10,2) DEFAULT NULL,
  KEY `time_id` (`time_id`),
  KEY `customer_id` (`customer_id`),
  KEY `book_id` (`book_id`),
  KEY `store_id` (`store_id`),
  CONSTRAINT `sales_fact_table_ibfk_1` FOREIGN KEY (`time_id`) REFERENCES `time` (`time_id`),
  CONSTRAINT `sales_fact_table_ibfk_2` FOREIGN KEY (`customer_id`) REFERENCES `customer` (`customer_id`),
  CONSTRAINT `sales_fact_table_ibfk_3` FOREIGN KEY (`book_id`) REFERENCES `book_dimensions` (`book_id`),
  CONSTRAINT `sales_fact_table_ibfk_4` FOREIGN KEY (`store_id`) REFERENCES `store_dimensions` (`store_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
+-----------------+-------------------------------------------------
```

```
mysql> select * from sales_fact_table;
+---------+-------------+---------+----------+---------------+--------------+---------+
| time_id | customer_id | book_id | store_id | quantity_sold | sales_amount | profit  |
+---------+-------------+---------+----------+---------------+--------------+---------+
|     100 |           1 |     201 |        1 |           500 |     40000.00 |   50.00 |
|     102 |           2 |     202 |        2 |           400 |     10000.00 |   20.00 |
|     100 |           3 |     204 |        3 |           700 |     90000.00 |   80.00 |
|     103 |           4 |     203 |        4 |           450 |     40000.00 |   50.00 |
|     102 |           1 |     204 |        1 |           220 |     65000.00 |   10.00 |
|     100 |           1 |     201 |        1 |           620 |     55000.00 |   30.00 |
|     102 |           2 |     204 |        2 |           320 |     65000.00 |   10.00 |
|     103 |           3 |     202 |        3 |           220 |     65000.00 |   50.00 |
|     102 |           1 |     203 |        4 |           120 |     25000.00 |   10.00 |
|     100 |           2 |     201 |        1 |           220 |     65000.00 |   20.00 |
|     102 |           1 |     204 |        1 |           620 |     35000.00 |   30.00 |
|     103 |           3 |     204 |        4 |           220 |     65000.00 |   70.00 |
|     102 |           1 |     202 |        1 |           520 |     65000.00 |   40.00 |
|     103 |           3 |     201 |        3 |           220 |     95000.00 |   60.00 |
|     102 |           1 |     204 |        1 |           220 |     65000.00 |   50.00 |
+---------+-------------+---------+----------+---------------+--------------+---------+
15 rows in set (0.00 sec)
```

Time

```
mysql> show create table time;
+-------+-------------------------------------------------------------
----------------------------------------------------------------------
| Table | Create Table

+-------+-------------------------------------------------------------
----------------------------------------------------------------------
| time  | CREATE TABLE `time` (
  `time_id` int NOT NULL,
  `day` int DEFAULT NULL,
  `week` varchar(20) DEFAULT NULL,
  `month` varchar(10) DEFAULT NULL,
  `year` int DEFAULT NULL,
  `quarter` varchar(20) DEFAULT NULL,
  PRIMARY KEY (`time_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
+-------+-------------------------------------------------------------
----------------------------------------------------------------------
```

```
mysql> select * from time;
+---------+------+--------+---------+------+---------+
| time_id | day  | week   | month   | year | quarter |
+---------+------+--------+---------+------+---------+
|     100 |   25 | first  | january | 2020 | Q1      |
|     102 |   26 | second | August  | 2021 | Q3      |
|     103 |   27 | third  | march   | 2022 | Q1      |
+---------+------+--------+---------+------+---------+
3 rows in set (0.00 sec)
```

Customer

```
mysql> show create table customer;
+-----------+-------------------------------------------------------------
-------------------------------------------------------------------------
| Table     | Create Table

+-----------+-------------------------------------------------------------
-------------------------------------------------------------------------
| customer  | CREATE TABLE `customer` (
  `customer_id` int NOT NULL,
  `name` varchar(20) DEFAULT NULL,
  `gender` varchar(10) DEFAULT NULL,
  `city` varchar(20) DEFAULT NULL,
  `address` varchar(20) DEFAULT NULL,
  PRIMARY KEY (`customer_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
+-----------+-------------------------------------------------------------
```

```
mysql> select * from customer;
+-------------+---------------+------------+---------------+----------------+
| customer_id | name          | gender     | city          | address        |
+-------------+---------------+------------+---------------+----------------+
|           1 | Alice Smith   | Female     | New York      | 123 Elm Street |
|           2 | Bob Johnson   | Male       | Los Angeles   | 456 Oak Avenue |
|           3 | Charlie Brown | Non-Binary | Chicago       | 789 Pine Road  |
|           4 | Diana Prince  | Female     | San Francisco | 101 Maple Lane |
+-------------+---------------+------------+---------------+----------------+
4 rows in set (0.00 sec)
```

Book dimension

```
mysql> show create table book_dimensions;
+----------------+----------------------------------------------------------
----------------+
| Table          | Create Table

+----------------+----------------------------------------------------------
----------------+
| book_dimensions | CREATE TABLE `book_dimensions` (
  `book_id` int NOT NULL,
  `title` varchar(20) DEFAULT NULL,
  `author` varchar(20) DEFAULT NULL,
  `genre` varchar(10) DEFAULT NULL,
  `publisher` varchar(20) DEFAULT NULL,
  PRIMARY KEY (`book_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
+----------------+----------------------------------------------------------
----------------+
```

```
1 row in set (0.00 sec)

mysql> select * from book_dimensions;
+---------+-------+--------+-----------+-----------+
| book_id | title | author | genre     | publisher |
+---------+-------+--------+-----------+-----------+
|     201 | abc   | A      | fictional | xyz       |
|     202 | def   | B      | nonfic    | abc       |
|     203 | ghi   | C      | sciencefic | def      |
|     204 | jkl   | D      | biography | ghi       |
+---------+-------+--------+-----------+-----------+
4 rows in set (0.00 sec)
```

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store dimension

```
mysql> select * from store_dimensions;
+----------+------------+-----------+---------+
| store_id | store_name | location  | manager |
+----------+------------+-----------+---------+
|        1 | Store A    | ghatkopar | X       |
|        2 | Store B    | powai     | Y       |
|        3 | Store C    | kalwa     | Z       |
|        4 | Store D    | Thane     | W       |
+----------+------------+-----------+---------+
4 rows in set (0.00 sec)
```

```
mysql> select * from store_dimensions;
+----------+------------+-----------+---------+
| store_id | store_name | location  | manager |
+----------+------------+-----------+---------+
|        1 | Store A    | ghatkopar | X       |
|        2 | Store B    | powai     | Y       |
|        3 | Store C    | kalwa     | Z       |
|        4 | Store D    | Thane     | W       |
+----------+------------+-----------+---------+
4 rows in set (0.00 sec)

mysql>
```