

Assignment – 16

Creating Tables and Indexes.

1) Write a command that will enable a user to pull orders grouped by date out of the Orders table quickly.

Query:

```
SELECT odate, COUNT(*) AS total_orders
```

```
FROM Orders
```

```
GROUP BY odate
```

```
ORDER BY odate;
```

Output:

```
mysql> SELECT odate, COUNT(*) AS total_orders
-> FROM Orders
-> GROUP BY odate
-> ORDER BY odate;
```

odate	total_orders
1990-10-03	2
1990-10-04	2
1990-10-05	1
1990-10-06	2

```
4 rows in set (0.00 sec)

mysql> |
```

2) If the Orders table has already been created, how can you force the onum field to be unique (assume all current values are unique)?

Query:

ALTER TABLE Orders

ADD CONSTRAINT unique_orders UNIQUE (onum);

Output:

```
mysql> ALTER TABLE Orders
      -> ADD CONSTRAINT unique_orders UNIQUE (onum);
Query OK, 0 rows affected, 1 warning (0.09 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> |
```

3) Create an index that would permit each salesperson to retrieve his or her orders grouped by date quickly.

Query:

SELECT snum as salesperson_snum, odate, COUNT(*) AS total_orders

FROM Orders

GROUP BY snum, odate

ORDER BY snum, odate;

Output:

```
Error 1064 (4222): Unknown column 'snum' in 'field list'
mysql> SELECT snum as salesperson_snum, odate, COUNT(*) AS total_orders
      -> FROM Orders
      -> GROUP BY snum, odate
      -> ORDER BY snum, odate;
+-----+-----+-----+
| salesperson_snum | odate   | total_orders |
+-----+-----+-----+
| 1001              | 1990-10-05 | 1           |
| 1001              | 1990-10-06 | 1           |
| 1002              | 1990-10-03 | 1           |
| 1002              | 1990-10-04 | 1           |
| 1002              | 1990-10-06 | 1           |
| 1003              | 1990-10-04 | 1           |
| 1007              | 1990-10-03 | 1           |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

4) Let us assume that each salesperson is to have only one customer of a given rating, and that this is currently the case. Enter a command that enforces it.

Query :

```
ALTER TABLE Customers
```

```
ADD CONSTRAINT unique_snum_ratig UNIQUE (snum, ratig);
```

Output:

```
mysql> ALTER TABLE Customers
      -> ADD CONSTRAINT unique_snum_ratig UNIQUE (snum, ratig);
Query OK, 0 rows affected, 1 warning (0.09 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> |
```