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.

```
W2_93085_Tejal CREATE INDEX idx_order_date
    -> ON ORDERS (ODATE);
Query OK, 0 rows affected (0.11 sec)
Records: 0  Duplicates: 0  Warnings: 0

W2_93085_Tejal SELECT ODATE, COUNT(*) AS Total_Orders, SUM(AMT) AS Total_Amount
    -> FROM ORDERS
    -> GROUP BY ODATE
    -> ORDER BY ODATE;
+------------+--------------+--------------+
| ODATE      | Total_Orders | Total_Amount |
+------------+--------------+--------------+
| 1990-10-03 |            5 |      8944.59 |
| 1990-10-04 |            2 |      1788.98 |
| 1990-10-06 |            1 |      1309.95 |
+------------+--------------+--------------+
3 rows in set (0.00 sec)
```

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)?

```
W2_93085_Tejal ALTER TABLE ORDERS
    -> ADD CONSTRAINT unique_onum UNIQUE (ONUM);
Query OK, 0 rows affected (0.06 sec)
Records: 0  Duplicates: 0  Warnings: 0

W2_93085_Tejal SELECT *FROM ORDERS;
+-------+---------+------------+------+------+
| Onum  | Amt     | Odate      | Cnum | Snum |
+-------+---------+------------+------+------+
| 3001  |   18.69 | 1990-10-03 | 2008 | 1007 |
| 3003  |  767.19 | 1990-10-03 | 2001 | 1001 |
| 3002  | 1900.10 | 1990-10-03 | 2007 | 1004 |
| 3005  | 5160.45 | 1990-10-03 | 2003 | 1002 |
| 3006  | 1098.16 | 1990-10-03 | 2008 | 1007 |
| 3009  | 1713.23 | 1990-10-04 | 2002 | 1003 |
| 3007  |   75.75 | 1990-10-04 | 2004 | 1002 |
| 3010  | 1309.95 | 1990-10-06 | 2004 | 1002 |
+-------+---------+------------+------+------+
8 rows in set (0.00 sec)
```

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

```
W2_93085_Tejal CREATE INDEX idx_snum_odate
    -> ON ORDERS (SNUM, ODATE);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

W2_93085_Tejal SELECT SNUM, ODATE, COUNT(*) AS Total_Orders, SUM(AMT) AS Total_Amount
    -> FROM ORDERS
    -> GROUP BY SNUM, ODATE;
+-------+------------+--------------+--------------+
| SNUM  | ODATE      | Total_Orders | Total_Amount |
+-------+------------+--------------+--------------+
| 1001  | 1990-10-03 |            1 |       767.19 |
| 1002  | 1990-10-03 |            1 |      5160.45 |
| 1002  | 1990-10-04 |            1 |        75.75 |
| 1002  | 1990-10-06 |            1 |      1309.95 |
| 1003  | 1990-10-04 |            1 |      1713.23 |
| 1004  | 1990-10-03 |            1 |      1900.10 |
| 1007  | 1990-10-03 |            2 |      1116.85 |
+-------+------------+--------------+--------------+
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.