

**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.

**CREATE INDEX idx\_orders\_odate  
ON orders(Odate);**

**SELECT Odate, COUNT(\*) AS total\_orders, SUM(Amt) AS total\_amount  
FROM orders  
GROUP BY Odate;**

```
D3_92819_Shubham>CREATE INDEX idx_orders_odate
-> ON orders(Odate);
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

D3_92819_Shubham>SELECT Odate, COUNT(*) AS total_orders, SUM(Amt) AS total_amount
-> FROM orders
-> GROUP BY Odate;
+-----+-----+-----+
| Odate      | total_orders | total_amount |
+-----+-----+-----+
| 1990-10-03 |          5 |    8944.59 |
| 1990-10-04 |          2 |    1788.98 |
| 1990-10-05 |          1 |    4723.00 |
| 1990-10-06 |          2 |   11201.83 |
+-----+-----+-----+
4 rows in set (0.01 sec)

D3_92819_Shubham>
```

- 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)?

**ALTER TABLE orders  
ADD CONSTRAINT pk\_orders\_onum PRIMARY KEY (Onum);**

```
D3_92819_Shubham>ALTER TABLE orders
-> ADD CONSTRAINT uq_orders_onum UNIQUE (Onum);
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0

D3_92819_Shubham>
```

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

```
CREATE INDEX I_DATE ON orders(odate);
```

```
D3_92819_Shubham>CREATE INDEX I_DATE ON orders(odate);  
Query OK, 0 rows affected, 1 warning (0.04 sec)  
Records: 0 Duplicates: 0 Warnings: 1  
  
D3_92819_Shubham>|
```

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

```
D3_92819_Shubham>ALTER TABLE customers
-> ADD CONSTRAINT uq_salesperson_rating UNIQUE (Snum, Rating);
ERROR 1062 (23000): Duplicate entry '1001-100' for key 'customers.uq_salesperson_rating'
D3_92819_Shubham>
```

