

Assignment 10

1. Create an index that will enable a user to pull orders for '1990-10-03' out of the Orders table quickly.

Ans:

Create INDEX idx_orders_odate ON Orders(odate);

Select * from orders where odate = '1990-10-03';

```
D4_PratikSatpute_62758>Create INDEX idx_orders_odate ON Orders(odate);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

D4_PratikSatpute_62758>Select * from orders where odate = '1990-10-03';
+-----+-----+-----+-----+-----+
| 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 |
+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

```
D4_PratikSatpute_62758>desc orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| onum  | int           | YES  |     | NULL    |       |
| amt   | decimal(7,2) | YES  |     | NULL    |       |
| odate | date          | YES  | MUL | NULL    |       |
| cnum  | int           | YES  |     | NULL    |       |
| snum  | int           | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 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)?

Ans: Create UNIQUE INDEX idx_orders_onum ON Orders(onum);

```
D4_PratikSatpute_62758>desc orders;
```

Field	Type	Null	Key	Default	Extra
onum	int	YES		NULL	
amt	decimal(7,2)	YES		NULL	
odate	date	YES	MUL	NULL	
cnum	int	YES		NULL	
snum	int	YES		NULL	

```
5 rows in set (0.00 sec)
```

```
D4_PratikSatpute_62758>Create UNIQUE INDEX idx_orders_onum ON Orders(onum);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
D4_PratikSatpute_62758>desc orders;
```

Field	Type	Null	Key	Default	Extra
onum	int	YES	UNI	NULL	
amt	decimal(7,2)	YES		NULL	
odate	date	YES	MUL	NULL	
cnum	int	YES		NULL	
snum	int	YES		NULL	

```
5 rows in set (0.00 sec)
```

3. Create an index that would permit salesperson to retrieve his orders.

Ans: Create INDEX idx_orders_snum ON Orders(snum);

```
D4_PratikSatpute_62758>Create INDEX idx_orders_snum ON Orders(snum);
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
D4_PratikSatpute_62758>desc orders;
```

Field	Type	Null	Key	Default	Extra
onum	int	YES	UNI	NULL	
amt	decimal(7,2)	YES		NULL	
odate	date	YES	MUL	NULL	
cnum	int	YES		NULL	
snum	int	YES	MUL	NULL	

```
5 rows in set (0.01 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. Create an index that enforces it.

Ans: Create UNIQUE INDEX idx_customers_rating_snum ON customers(rating ASC ,snum ASC);

```
D4_PratikSatpute_62758>CREATE UNIQUE INDEX idx_customers_rating_snum ON customers(rating ASC,snum ASC);
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

D4_PratikSatpute_62758>desc customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| cnum  | int       | YES  |     | NULL    |       |
| cname | varchar(10) | YES  |     | NULL    |       |
| city  | varchar(10) | YES  |     | NULL    |       |
| rating | int       | YES  | MUL | NULL    |       |
| snum  | int       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

5. Let us assume that each salesperson is to have only one customer of a given rating, and that this is currently the case. Create an index that enforces it.

Ans:

Create INDEX idx_orders_odate_cnum ON Orders (odate ASC , cnum ASC);