

Assignment 17
Constraining the Values of your data.

1) Create the Orders table so that all onum values as well as all combinations of cnum and snum are different from one another, and so that NULL values are excluded from the date field.

```
CREATE TABLE orders1
( onum int(4),
  cnum int(4),
  sname varchar(15),
  odate date NOT NULL,
  CONSTRAINT p_k_1 PRIMARY key(onum,cnum,sname)
);
desc orders1;
```

```
mysql> desc orders1;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| onum  | int           | NO   | PRI | NULL    |       |
| cnum  | int           | NO   | PRI | NULL    |       |
| sname | varchar(15)   | NO   | PRI | NULL    |       |
| odate | date          | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

2) Create the Salespeople table so that the default commission is 10% with no NULLS permitted, snum is the primary key, and all names fall alphabetically between A and M, inclusive (assume all names will be uppercase).

```
CREATE TABLE salespeople1 (
  comm int(4) DEFAULT 10,
  snum int(4) PRIMARY KEY,
  sname varchar(15) check(substr(upper(sname),1,1) BETWEEN 'A' AND 'M') );
```

```
INSERT INTO salespeople1 VALUES (10,292,'jaya'),(9,222,'maya');
```

```
select * from salespeople1 order by sname;
```

```
mysql> select * from salespeople1 order by sname;
```

comm	snum	sname
10	292	jaya
9	222	maya

2 rows in set (0.00 sec)

3) Create the Orders table, making sure that the onum is greater than the cnum, and the cnum is greater than the snum. Allow no NULLS in any of these three fields.

```
CREATE TABLE orders2 (  
  onum int(4) NOT NULL,  
  amt float(7,2),  
  odate date,  
  cnum int(4) NOT NULL,  
  snum int(4) NOT NULL,  
  CONSTRAINT on_cn_sn check(onum>cnum AND cnum>snum)  
);
```

```
INSERT INTO orders2 VALUES (20, 99.99, '2022-01-01', 10, 5);
```

```
INSERT INTO orders2 VALUES (30, 76.89, '2023-03-01', 15, 6);
```

```
mysql> select * from orders2;
```

onum	amt	odate	cnum	snum
20	99.99	2022-01-01	10	5
30	76.89	2023-03-01	15	6

2 rows in set (0.01 sec)