

Assignment 18  
Maintaining the Integrity of your Data.

1) Create a table called Cityorders. This will contain the same onum, amt and snum fields as the Orders table, and the same cnum and city fields as the Customers table, so that each customer's order will be entered into this table along with his or her city. Onum will be the primary key of Cityorders. All of the fields in Cityorders will be constrained to match the Customers and Orders tables. Assume the parent keys in these tables already have the proper constraints.

```
CREATE TABLE cityorders
SELECT onum,amt,snum,cnum,city
FROM orders
NATURAL JOIN customers;
```

```
ALTER TABLE cityorders ADD CONSTRAINT onum_fk
FOREIGN key(onum) REFERENCES orders(onum);
```

```
DESC cityorders;
```

```
[mysql> DESC cityorders;
```

Field	Type	Null	Key	Default	Extra
onum	int	NO	MUL	NULL	
amt	float(7,2)	YES		NULL	
snum	int	YES		NULL	
cnum	int	YES		NULL	
city	varchar(10)	YES		NULL	

```
5 rows in set (0.01 sec)
```

2) Redefine the Orders table as follows:- add a new column called prev, which will identify, for each order, the onum of the previous order for that current customer. Implement this with a foreign key referring to the Orders table itself. The foreign key should refer as well to the cnum of the customer, providing a definite enforced link between the current order and the one referenced.

```
ALTER TABLE cityorders ADD CONSTRAINT unique_onum_cnum UNIQUE (onum, cnum);
```

```
ALTER TABLE cityorders ADD prev_o INT(4);
```

```
ALTER TABLE cityorders ADD CONSTRAINT fk_prev_order FOREIGN KEY (prev_o, cnum) REFERENCES cityorders(onum, cnum);
```