

1. Create the above tables by properly specifying the primary keys and the foreign keys.

```
create table cheque
(
    cnum int primary key,
    cdate date,
    camount int
);

create table section
(
    scode int primary key,
    sname varchar(30)
);

create table vender
(
    vnum int primary key,
    vname varchar(30),
    vaddress varchar(30)
);

create table voucher
(
    vouchnum int primary key,
    vouchdate date,
    vennum int,
    chqnum int,
    constraint Fk_vennum
    foreign key(vennum) references vender(vnum),
    constraint FK_chqnum
    foreign key(chqnum) references cheque(cnum)
);

create table item
(
    icode int primary key,
    idesc varchar(20),
    unit_price number(8,2),
    eqq int,
    rol int,
    soh int,
    boq int
);

create table indent
(
    inum int primary key,
```

```

        qtdmd int,
        qtissued int,
        seccode int,
        itemcode int,
        constraint FK_seccode
        foreign key(seccode) references section(scode),
        constraint Fk_itemcode
        foreign key(itemcode) references item(icode)
    );

create table orders
(
    onum int primary key,
    odate date,
    voucher_num int,
    vender_num int,
    due_date date,
    constraint FK_voucher
    foreign key(voucher_num) references voucher(vouchnum) on delete
    set null,
    constraint FK_vender
    foreign key(vender_num) references vender(vnum)
);

create table ordering
(
    ordernum int,
    itemcode int,
    quantity int,
    constraint FK_icode
    foreign key(itemcode) references item(icode)
);

```

2. Enter at least five tuples for each relation.

```

#item_table
insert into item values('01','book','25.00',75,15,50,12);
insert into item values('02','calculator','650.00',80,50,12,21);
insert into item values('03','record','60.00',23,72,40,31);
insert into item values('04','pen','5.00',44,32,93,80);
insert into item values('05','bag','1000.00',99,32,78,32);

#vender_table
insert into vender values('21','John','Las Vegas');
insert into vender values('22','Siri','Canyon road');
insert into vender values('23','Tom','Chicao');

```

```
insert into vender values('24','Messi','Miami');
insert into vender values('25','Joy','Oxford Street');
```

```
#section_table
```

```
insert into section values('15','shop1');
insert into section values('16','shop2');
insert into section values('17','shop3');
insert into section values('18','shop4');
insert into section values('19','shop5');
```

```
#cheque_table
```

```
insert into cheque values(1010,'18-DEC-2018',24567.00);
insert into cheque values(1781,'21-JAN-2019',12137.00);
insert into cheque values(1562,'13-DEC-2016',34575.00);
insert into cheque values(1231,'19-MAR-2017',53461.00);
insert into cheque values(1120,'17-NOV-2017',43576.00);
```

```
#voucher_table
```

```
insert into voucher values(34,'18-DEC-2018',21,1781);
insert into voucher values(56,'17-NOV-2017',24,1562);
insert into voucher values(12,'21-JAN-2019',23,1781);
insert into voucher values(98,'13-DEC-2016',22,1231);
insert into voucher values(87,'19-MAR-2017',25,1120);
```

```
#indent_table
```

```
insert into indent values(45,13,112,15,1);
insert into indent values(32,78,162,17,5);
insert into indent values(67,23,171,16,4);
insert into indent values(12,56,435,18,3);
insert into indent values(87,12,557,19,2);
```

```
#orders_table
```

```
insert into orders values('32','12-MAR-2019','34','21','18-DEC-2018');
insert into orders values('42','19-SEP-2012','56','21','17-NOV-2017');
insert into orders values('66','20-JUN-2015','12','21','21-JAN-2019');
insert into orders values('78','31-MAY-2016','98','21','13-DEC-2016');
insert into orders values('67','06-APR-2012','87','21','19-MAR-2017');
```

```
#ordering_table
```

```
insert into ordering values('32','01','112');
insert into ordering values('42','02','557');
insert into ordering values('66','03','435');
insert into ordering values('78','04','171');
insert into ordering values('67','05','220');
```

Run SQL Command Line

```
SQL> select * from item;
```

ICODE	IDESC	UNIT_PRICE	EQQ	ROL	SOH	BOQ
1	book	25	75	15	50	12
2	calculator	650	80	50	12	21
3	record	60	23	72	40	31
4	pen	5	44	32	93	80
5	bag	1000	99	32	78	32

```
SQL> select * from vender  
2 ;
```

VNUM	VNAME	VADDRESS
21	John	Las Vegas
22	Siri	Canyon road
23	Tom	Chicao
24	Messi	Miami
25	Joy	Oxford Street

```
SQL>
```

```
SQL> select * from section;
```

SCODE	SNAME
15	shop1
16	shop2
17	shop3
18	shop4
19	shop5

```
SQL> select * from cheque;
```

CNUM	CDATE	CAMOUNT
1010	18-DEC-18	24567
1781	21-JAN-19	12137
1562	13-DEC-16	34575
1231	19-MAR-17	53461
1120	17-NOV-17	43576

```
SQL> select * from voucher;
```

VOUCHNUM	VOUCHDATE	VENNUM	CHQNUM
34	18-DEC-18	21	1781
56	17-NOV-17	24	1562
12	21-JAN-19	23	1781
98	13-DEC-16	22	1231
87	19-MAR-17	25	1120

Select Run SQL Command Line

SQL> select * from indent;

INUM	QTDMD	QTISSUED	SECCODE	ITEMCODE
45	13	112	15	1
32	78	162	17	5
67	23	171	16	4
12	56	435	18	3
87	12	557	19	2

SQL> select * from orders;

ONUM	ODATE	VOUCHER_NUM	VENDER_NUM	DUE_DATE
32	12-MAR-19	34	21	18-DEC-18
42	19-SEP-12	56	21	17-NOV-17
66	20-JUN-15	12	21	21-JAN-19
78	31-MAY-16	98	21	13-DEC-16
67	06-APR-12	87	21	19-MAR-17

SQL> select * from ordering;

ORDERNUM	ITEMCODE	QUANTITY
32	1	112
42	2	557
66	3	435
78	4	171
67	5	220

3. Increase the unit price by 1% for all items.

```
update item set unit_price = unit_price * 1.01;
```

Run SQL Command Line

SQL> update item set unit_price = unit_price * 1.01;

5 rows updated.

SQL> select * from item;

ICODE	IDESC	UNIT_PRICE	EQQ	ROL	SOH	BOQ
1	book	25.25	75	15	50	12
2	calculator	656.5	80	50	12	21
3	record	60.6	23	72	40	31
4	pen	5.05	44	32	93	80
5	bag	1010	99	32	78	32

4. Add check constraint to Unit Price in Item table, which should allow only positive values.

```
alter table item add constraint ck_unit_price  
check(unit_price > 0);
```

Run SQL Command Line

```
SQL> alter table item add constraint ck_unit_price  
2 check(unit_price > 0);
```

Table altered.

```
SQL> select * from item;
```

ICODE	IDESC	UNIT_PRICE	EQQ	ROL	SOH	BOQ
1	book	25.25	75	15	50	12
2	calculator	656.5	80	50	12	21
3	record	60.6	23	72	40	31
4	pen	5.05	44	32	93	80
5	bag	1010	99	32	78	32