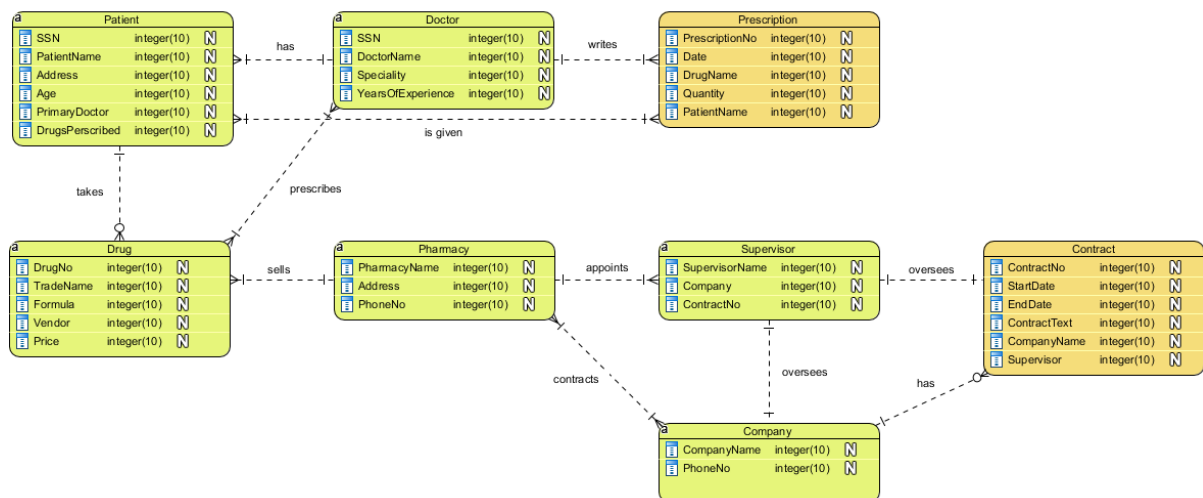
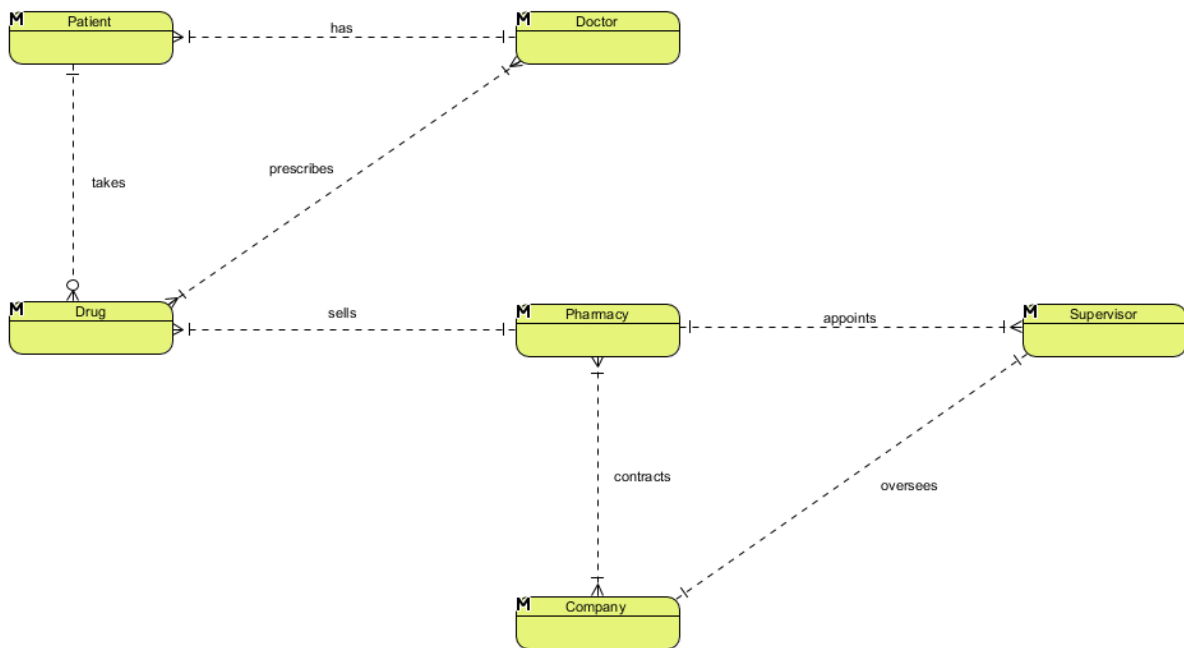


Q1.



Q2.

Primary key *Foreign key*Customer (**customerID**, lastName, firstName, address, city, state, zip, phone)Salesperson (**salespersonID**, salespersonFirstName, salespersonLastName, salespersonCode)SalesOrder (**salesorderNumber**, date, subtotal, tax, total, *customerID*, *salespersonID*)Item (**itemNumber**, unitPrice, description)OrderLineItem (**lineNumber**, *salesorderNumber*, quantity, unitPrice, extendedPrice, *itemNumber*)

Q3.

1.

The screenshot shows a database management tool interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'room' tab is active. The SQL editor contains the following queries:

```
1 SELECT * FROM hotelbooking.room;  
2  
3 UPDATE Room  
4 SET Price = (Price * 1.05);  
5
```

Below the editor is a 'Result Grid' showing the results of the first query. The grid has columns: roomNo, hotelNo, type, and price. The results are as follows:

roomNo	hotelNo	type	price
R001	H001	Single	31.50
R101	H001	Double	26.25
R101	H002	Single	59.85
R104	H002	Double	94.50
R110	H003	Double	36.75
R210	H003	Family	210.00
R302	H001	Family	42.00
R302	H002	Family	157.50
R907	H004	Family	210.00
NULL	NULL	NULL	NULL

2.

The screenshot shows the same database management tool interface. The SQL editor contains the following queries:

```
1 SELECT * FROM hotelbooking.room;  
2  
3 SELECT * FROM Room  
4 WHERE (Type = "double" OR Type = "family")  
5 AND Price < 40.00  
6 ORDER BY Price ASC;
```

Below the editor is a 'Result Grid' showing the results of the second query. The grid has columns: roomNo, hotelNo, type, and price. The results are as follows:

roomNo	hotelNo	type	price
R101	H001	Double	26.25
R110	H003	Double	36.75
NULL	NULL	NULL	NULL

3.

The screenshot shows a database interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'room' tab is active. Below the tabs is a toolbar with various icons. The SQL editor contains two queries:

```
1 • SELECT * FROM hotelbooking.room;  
2  
3 • SELECT AVG(Price) FROM Room;  
4
```

Below the editor is a 'Result Grid' section. It has a 'Filter Rows' input field and an 'Export' button. The results are displayed in a table:

AVG(Price)
96.483333

4.

The screenshot shows a database interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'booking' tab is active. Below the tabs is a toolbar with various icons. The SQL editor contains two queries:

```
1 • SELECT * FROM hotelbooking.booking;  
2  
3 • SELECT RoomNo FROM Booking  
4 WHERE HotelNo = "H002"  
5 AND dateFrom = "0000-00-00";
```

Below the editor is a 'Result Grid' section. It has a 'Filter Rows' input field and an 'Export' button. The results are displayed in a table:

RoomNo
R101
R302

5.

The screenshot shows a database interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'room' tab is selected. Below the tabs is a toolbar with various icons. The SQL editor contains the following queries:

```
1 SELECT * FROM hotelbooking.room;  
2  
3 SELECT COUNT(RoomNo) FROM Room  
4 WHERE HotelNo = "H001";  
5
```

Below the SQL editor is a 'Result Grid' section. It shows a single row with the column 'COUNT(RoomNo)' and the value '3'.

6.

The screenshot shows a database interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'booking' tab is selected. Below the tabs is a toolbar with various icons. The SQL editor contains the following queries:

```
1 SELECT * FROM hotelbooking.booking;  
2  
3 SELECT * FROM Booking  
4 WHERE dateTo = "0000-00-00";  
5
```

Below the SQL editor is a 'Result Grid' section. It shows a table with the following data:

	bookingNo	dateFrom	dateTo	guestNo	roomNo	hotelNo
▶	B005	0000-00-00	0000-00-00	0	R101	H002
	B006	0000-00-00	0000-00-00	0	R302	H002
*	NULL	NULL	NULL	NULL	NULL	NULL

7.

The screenshot shows a database query interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'hotel' tab is selected. The SQL query is:

```
1 SELECT * FROM hotelbooking.hotel;  
2  
3 SELECT * FROM Hotel  
4 WHERE City = "London";
```

The result grid shows the following data:

	hotelNo	hotelName	city
*	NULL	NULL	NULL

8.

The screenshot shows a database query interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'hotel' tab is selected. The SQL query is:

```
1 SELECT * FROM hotelbooking.hotel;  
2  
3 SELECT COUNT(HotelNo) FROM Hotel;
```

The result grid shows the following data:

	COUNT(HotelNo)
▶	4

9.

The screenshot shows a database query interface with tabs for 'booking', 'guest', 'hotel', and 'room'. The 'room' tab is selected. The SQL query is:

```
1 SELECT * FROM hotelbooking.room;  
2  
3 SELECT SUM(Price) FROM Room  
4 WHERE Type = "Double";
```

The result grid shows the following data:

	SUM(Price)
▶	157.50

10.

booking x guest hotel room

Limit to 1000 rows

```

1 • SELECT * FROM hotelbooking.booking;
2
3 • SELECT * FROM Booking
4   INNER JOIN Guest
5   ON Booking.GuestNo = Guest.GuestNo
6   WHERE Guest.GuestName = "Mary";
7

```

Result Grid

	bookingNo	dateFrom	dateTo	guestNo	roomNo	hotelNo	guestNo	guestName	guestAddress
▶	B001	2012-02-08	NULL	G001	R001	H001	G001	Mary	Cork Ireland
	B003	2013-07-15	NULL	G001	R210	H003	G001	Mary	Cork Ireland

booking x guest hotel room

Limit to 1000 rows

```

1 • SELECT * FROM hotelbooking.booking;
2
3 • SELECT * FROM Booking
4   INNER JOIN Guest
5   ON Booking.GuestNo = Guest.GuestNo
6   WHERE Guest.GuestName = "Mary";
7
8 • DELETE FROM Booking
9   WHERE GuestNo = "G001";
10
11 • SELECT * FROM Booking;

```

Result Grid

	bookingNo	dateFrom	dateTo	guestNo	roomNo	hotelNo
▶	B002	2013-01-01	2013-01-03	G002	R104	H002
	B004	2012-12-31	2013-01-14	G003	R907	H004
	B005	0000-00-00	0000-00-00	0	R101	H002
	B006	0000-00-00	0000-00-00	0	R302	H002
*	NULL	NULL	NULL	NULL	NULL	NULL

Q3.

SQL File 6*

Limit to 1000 rows

```
1 CREATE TABLE T(id INT NOT NULL PRIMARY KEY, s VARCHAR(40), si SMALLINT);
2
3 INSERT INTO T (id, s) VALUES
4 (1, "First"),
5 (2, "Second"),
6 (3, "Third");
7
8 SELECT * FROM T;
```

Result Grid

	id	s	si
▶	1	First	NULL
	2	Second	NULL
	3	Third	NULL
*	NULL	NULL	NULL

SQL File 6*

Limit to 1000 rows

```
1 CREATE TABLE T(id INT NOT NULL PRIMARY KEY, s VARCHAR(40), si SMALLINT);
2
3 INSERT INTO T (id, s) VALUES
4 (1, "First"),
5 (2, "Second"),
6 (3, "Third");
7
8 SELECT * FROM T;
9
10 ROLLBACK;
11
12 SELECT * FROM T;
```

Result Grid

	id	s	si
▶	1	First	NULL
	2	Second	NULL
	3	Third	NULL
*	NULL	NULL	NULL

SQL File 6* t x

Limit to 1000 rows

```
1 SELECT * FROM hotelbooking.t;
2
3 START TRANSACTION;
4 INSERT INTO T (id, s) VALUES (4, "Fourth");
5
6 SELECT * FROM T;
7 ROLLBACK;
8 SELECT * FROM T;
9
```

Result Grid

	id	s	si
▶	1	First	NULL
	2	Second	NULL
	3	Third	NULL
	4	Fourth	NULL
*	NULL	NULL	NULL

SQL File 6* t x

Limit to 1000 rows

```
1 SELECT * FROM hotelbooking.t;
2
3 START TRANSACTION;
4 INSERT INTO T (id, s) VALUES (4, "Fourth");
5
6 SELECT * FROM T;
7 ROLLBACK;
8 SELECT * FROM T;
9
10 INSERT INTO T (id, s) VALUES (5, "Fifth");
11 ROLLBACK;
12 SELECT * FROM T;
```

Result Grid

	id	s	si
▶	1	First	NULL
	2	Second	NULL
	3	Third	NULL
	4	Fourth	NULL
	5	Fifth	NULL
*	NULL	NULL	NULL