

Answer 1:

```
mysql> create database shonline;
Query OK, 1 row affected (0.01 sec)

mysql> use shonline;
Database changed
```

Answer 2:

```
mysql> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customer_id | int(20) | YES | | NULL | |
| customer_name | varchar(200) | YES | | NULL | |
| customer_contact | int(10) | YES | | NULL | |
| customer_address | varchar(200) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> desc order_customer;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| order_id | int(20) | YES | | NULL | |
| customer_id | int(20) | YES | | NULL | |
| sales_person_id | int(20) | YES | | NULL | |
| date | date | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> desc sales_person;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| salesperson_id | int(20) | YES | | NULL | |
| salesperson_name | varchar(200) | YES | | NULL | |
| sales_person_contact | int(10) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

Answer 3:

```
mysql> create table customer(customer_id int(20), customer_name varchar(200), customer_contact int(10), customer_address varchar(200));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'varchar(200), customer_contact int(10), customer_address varchar(200))' at line 1

mysql> create table customer(customer_id int(20), customer_name varchar(200), customer_contact int(10), customer_address varchar(200));
Query OK, 0 rows affected (0.32 sec)

mysql> create table order(order_id int(20), customer_id int(20), sales_person_id int(20), date datetime);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'order(order_id int(20), customer_id int(20), sales_person_id int(20), date datet' at line 1

mysql> create table order (order_id int(20), customer_id int(20), sales_person_id int(20), date datetime);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'order (order_id int(20), customer_id int(20), sales_person_id int(20), date date' at line 1

mysql> create table order (order_id int(20), customer_id int(20), sales_person_id int(20), date date);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'order (order_id int(20), customer_id int(20), sales_person_id int(20), date date' at line 1

mysql> create table order_customer (order_id int(20), customer_id int(20), sales_person_id int(20), date date);
Query OK, 0 rows affected (0.33 sec)

mysql> create table sales_person (salesperson_id int(20), salesperson_name varchar(200), sales_person_contact int(10));
Query OK, 0 rows affected (0.36 sec)

mysql> show tables;
+-----+
| Tables_in_shonline |
+-----+
| customer            |
| order_customer      |
| sales_person        |
+-----+
3 rows in set (0.00 sec)
```

Answer 4:

```
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+-----+
| salesperson_id | int(20) | YES | | NULL | | |
| salesperson_name | varchar(200) | YES | | NULL | | |
| sales_person_contact | int(10) | YES | | NULL | | |
+-----+
3 rows in set (0.01 sec)

mysql> insert into customer (customer_id, customer_name, customer_contact, customer_address) values (001, 'A', 8888, 'AD1');
Query OK, 1 row affected (0.11 sec)

mysql> insert into customer (customer_id, customer_name, customer_contact, customer_address) values (002, 'B', 9999, 'AD2');
Query OK, 1 row affected (0.09 sec)

mysql> insert into customer (customer_id, customer_name, customer_contact, customer_address) values (003, 'C', 1111, 'AD3');
Query OK, 1 row affected (0.09 sec)

mysql> insert into customer (customer_id, customer_name, customer_contact, customer_address) values (004, 'D', 4444, 'AD4');
Query OK, 1 row affected (0.07 sec)

mysql> insert into order_customer (order_id, customer_id, sales_person_id, date) values (1001, 001, 100, '2019-01-10');
Query OK, 1 row affected (0.08 sec)

mysql> insert into order_customer (order_id, customer_id, sales_person_id, date) values (1002, 001, 100, '2019-01-14');
Query OK, 1 row affected (0.08 sec)

mysql> insert into order_customer (order_id, customer_id, sales_person_id, date) values (1003, 002, 102, '2019-08-14');
Query OK, 1 row affected (0.07 sec)

mysql> insert into order_customer (order_id, customer_id, sales_person_id, date) values (1004, 003, 103, '2019-05-17');
Query OK, 1 row affected (0.07 sec)

mysql> insert into sales_person (salesperson_id, salesperson_name, sales_person_contact) values (100, 'Rajesh', 400);
Query OK, 1 row affected (0.08 sec)

mysql> insert into sales_person (salesperson_id, salesperson_name, sales_person_contact) values (101, 'Rajesh', 400);
Query OK, 1 row affected (0.08 sec)

mysql>
mysql>
```

```
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+-----+
| customer_contact | int(10) | YES | | NULL | | |
| customer_address | varchar(200) | YES | | NULL | | |
+-----+
4 rows in set (0.00 sec)

mysql> select * from customer;
+-----+
| customer_id | customer_name | customer_contact | customer_address |
+-----+
| 1 | A | 8888 | AD1 |
| 2 | B | 9999 | AD2 |
| 3 | C | 1111 | AD3 |
| 4 | D | 4444 | AD4 |
+-----+
4 rows in set (0.01 sec)

mysql> select * from order_customer;
+-----+
| order_id | customer_id | sales_person_id | date |
+-----+
| 1001 | 1 | 100 | 2019-01-10 |
| 1002 | 1 | 100 | 2019-01-14 |
| 1003 | 2 | 102 | 2019-08-14 |
| 1004 | 3 | 103 | 2019-05-17 |
+-----+
4 rows in set (0.00 sec)

mysql> select * from sales_person;
+-----+
| salesperson_id | salesperson_name | sales_person_contact |
+-----+
| 100 | Rajesh | 400 |
| 101 | Raju | 500 |
| 102 | Sonu | 300 |
+-----+
3 rows in set (0.00 sec)

mysql>
```

Answer 5:

```
mysql> SELECT salesperson_id, salesperson_name
-> from sales_person
-> where salesperson id in
-> (select sales_person_id from order_customer
-> group by sales_person_id
-> having count(customer_id)>1)
-> ;
+-----+
| salesperson_id | salesperson_name |
+-----+
| 100 | Rajesh |
+-----+
1 row in set (0.01 sec)

mysql>
```

Answer 6:

```
mysql> select x.*,y.* from order_customer x join sales_person y on x.sales_person_id = y.salesperson_id;
```

order_id	customer_id	sales_person_id	date	salesperson_id	salesperson_name	sales_person_contact
1001	1	100	2019-01-10	100	Rajesh	400
1002	1	100	2019-01-14	100	Rajesh	400
1003	2	102	2019-08-14	102	Sonu	300

3 rows in set (0.00 sec)

```
mysql>
```

Answer 7:

```
mysql> alter table order_customer add index order_id_index (order_id);
```

Query OK, 0 rows affected (0.42 sec)
Records: 0 Duplicates: 0 Warnings: 0

Answer 8:

```
mysql> show index from order_customer;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type
order_customer		1 order_id_index	1	order_id	A	4		NULL	NULL	YES BTREE

1 row in set (0.00 sec)

```
mysql>
```

Answer 9:

```
mysql> select customer_name, order_id, salesperson_name from customer x left join order_customer y on x.customer_id= y.customer_id left join sales_person z on z.salesperson_id=y.sales_person_id;
```

customer_name	order_id	salesperson_name
A	1001	Rajesh
A	1002	Rajesh
B	1003	Sonu
C	1004	NULL
D	NULL	NULL