

```
create database if not exists DE_DEMO;

USE DE_DEMO;

create schema IF NOT EXISTS test;

Drop table IF EXISTS test.students;

Drop table IF EXISTS test.Students_Bak;

CREATE TABLE test.students (
    STUDENT_NO int NOT NULL,
    NAME varchar(20) NOT NULL,
    SUBJECT varchar(20) DEFAULT NULL
);

ALTER TABLE test.students ADD (AGE int, COURSE varchar(40));

ALTER TABLE test.students DROP COLUMN COURSE;

ALTER TABLE test.students RENAME COLUMN NAME to FIRST_NAME;

ALTER TABLE test.students Alter COLUMN FIRST_NAME set data type varchar(20),
FIRST_NAME drop not null;

ALTER TABLE test.students Alter COLUMN FIRST_NAME set data type varchar(20),
FIRST_NAME set not null;

ALTER TABLE test.students RENAME TO test.Students_11;

ALTER TABLE test.Students_11 RENAME TO test.students;

INSERT INTO test.students VALUES ('001','BINGBING','UNK','37');
commit;

select * FROM test.students;

delete from test.students where STUDENT_NO=1;
rollback;

select * FROM test.students;

UPDATE test.students
SET AGE= 39
WHERE FIRST_NAME='BINGBING'
AND STUDENT_NO=1;
```

```
commit;

ALTER TABLE test.students RENAME TO test.Students_Bak;

create table test.students like test.Students_Bak;

insert into test.students select * FROM test.Students_Bak;
```

```
select * FROM test.students
union
select * FROM test.Students_Bak;
```

```
select * FROM test.students
union all
select * FROM test.Students_Bak;
```

```
create schema IF NOT EXISTS join_demo;
```

```
create table join_demo.customer
(
customer_id varchar(10),
first_name varchar(50),
Address  varchar(255),
Gender char(1),
Date_of_Birth date
);
```

```
create table join_demo.customer_order
(
order_id varchar(10),
customer_id varchar(10),
order_date date,
total_order_quantity int
);
```

```
create table join_demo.order_details
(
order_id varchar(10),
product_id varchar(10),
product_quantity int
);
```

```
create table join_demo.product
```

```
(
product_id varchar(10),
product_name varchar(50),
product_quantity int,
supplier_id varchar(10)
);
```

```
create table join_demo.Supplier
(
supplier_id varchar(10),
supplier_name varchar(50),
supplier_contact int
);
```

```
INSERT INTO join_demo.customer VALUES ('C000001','BINGBING','UNK','F','1981-03-01');
INSERT INTO join_demo.customer VALUES
('C000002','XIAOLU','BEIJING','F','1980-05-04');
INSERT INTO join_demo.customer VALUES
('C000004','YIFEI','NEWYORK','F','1986-09-10');
```

```
select * From join_demo.customer
```

```
commit;
```

```
INSERT INTO join_demo.customer_order VALUES ('000002','C000001','2018-10-01',2);
INSERT INTO join_demo.customer_order VALUES ('000001','C000002','2018-10-02',1);
INSERT INTO join_demo.customer_order VALUES ('000003','C000003','2018-10-02',1);
INSERT INTO join_demo.customer_order VALUES ('000004','C000002','2018-10-03',1);
```

```
INSERT INTO join_demo.order_details VALUES ('000001','P000002',1);
INSERT INTO join_demo.order_details VALUES ('000002','P000003',1);
INSERT INTO join_demo.order_details VALUES ('000002','P000005',1);
INSERT INTO join_demo.order_details VALUES ('000004','P000001',1);
INSERT INTO join_demo.order_details VALUES ('000005','P000001',1);
```

```
commit;
```

```
INSERT INTO join_demo.product VALUES ('P000001','Coke',2000,'S000001');
INSERT INTO join_demo.product VALUES ('P000002','Pepsi',1900,'S000002');
INSERT INTO join_demo.product VALUES ('P000003','Lift',1950,'S000002');
INSERT INTO join_demo.product VALUES ('P000004','Solo',1800,'S000001');
INSERT INTO join_demo.product VALUES ('P000005','Fanta',1400,'S000001');
```

```
INSERT INTO join_demo.Supplier VALUES ('S000001','COLES',22222222);
```

```
INSERT INTO join_demo.Supplier VALUES ('S000002','WOOLWORTHS',33333333);
INSERT INTO join_demo.Supplier VALUES ('S000003','ALDI',55555555);
```

```
commit;
```

```
select * From join_demo.customer_order as A
inner join join_demo.order_details as B
on A.order_id = B.order_id;
```

```
select * From join_demo.customer as A
inner join join_demo.customer_order as B
on A.customer_id = B.customer_id;
```

```
select * From join_demo.customer as A
left join join_demo.customer_order as B
on A.customer_id = B.customer_id
WHERE B.customer_id is null;
```

```
select * From join_demo.customer as A
right join join_demo.customer_order as B
on A.customer_id = B.customer_id
WHERE A.customer_id is null;
```

```
select * From join_demo.customer as A
left join join_demo.customer_order as B
on A.customer_id = B.customer_id
WHERE B.customer_id is null
union
select * From join_demo.customer as A
right join join_demo.customer_order as B
on A.customer_id = B.customer_id
WHERE A.customer_id is null;
```

```
--SQL Arithmetic Sample
```

```
select 3 + 20;
select 10 - 20;
select 5 * 4;
select 20 / 5;
select 13 % 5;
```

```
--SQL Comparison Sample
```

```
select * From join_demo.productwhere product_quantity =2000;
select * From join_demo.productwhere product_quantity !=2000;
```

```

select * From join_demo.productwhere product_quantity <>2000;
select * From join_demo.productwhere product_quantity >1000;
select * From join_demo.productwhere product_quantity <1800;
select * From join_demo.productwhere product_quantity >=1500;
select * From join_demo.productwhere product_quantity <=1500;

```

--SQL Logical Sample

```

SELECT * FROM join_demo.product WHERE product_quantity > ALL (SELECT
product_quantity FROM join_demo.product WHERE supplier_id =2 );
SELECT * FROM join_demo.product WHERE supplier_id =1 and product_quantity > ANY
(SELECT product_quantity FROM join_demo.product WHERE product_quantity > 1500);
SELECT * FROM join_demo.product WHERE supplier_id =1 and product_quantity < ANY
(SELECT product_quantity FROM join_demo.product WHERE product_quantity > 1500);
SELECT * FROM join_demo.product where product_quantity between 1100 and 1800;
SELECT * FROM join_demo.product a where EXISTS (select * from
join_demo.order_details b where a.product_id = b.product_id);
SELECT distinct a.* FROM join_demo.product a inner join join_demo.order_details b on
a.product_id = b.product_id;
SELECT * FROM join_demo.product where product_name in ('Coke', 'Pepsi');
SELECT * FROM join_demo.product where product_name like 'C%';
SELECT * FROM join_demo.product where product_name not like 'C%';
SELECT * FROM join_demo.product where product_name = 'Coke' or product_name='Pepsi';
SELECT * FROM join_demo.customer as A right join join_demo.customer_order as B on
A.customer_id = B.customer_id WHERE A.customer_id is null;

```

--SQL Other & Aggregation Sample

```

SELECT * FROM join_demo.product limit 2;
SELECT * FROM join_demo.product order by product_quantity;
SELECT * FROM join_demo.product order by product_quantity desc;
SELECT supplier_id, product_id, sum(product_quantity), avg(product_quantity) from
join_demo.product group by 1, 2 order by supplier_id;
select order_date FROM join_demo.customer_order group by order_date;

```

```

select order_date, count(1) as cnt FROM join_demo.customer_order group by order_date
having cnt >1;
select distinct order_date FROM join_demo.customer_order;

```