Tut1:

CREATE TABLE SUPPLIER(SUPPLIER\_NO INT PRIMARY KEY,NAME CHAR(10),ADDRESS VARCHAR(10));

INSERT INTO SUPPLIER VALUES(1001,'MICHAEL','BASILDON');

INSERT INTO SUPPLIER VALUES(1002,'RINGWORLD','GERMANY');

INSERT INTO SUPPLIER VALUES(1003,'BABYLON','LONDON');

INSERT INTO SUPPLIER VALUES(1004,'JOHN','BASILDON');

INSERT INTO SUPPLIER VALUES(1005,'SMITH','GERMANY');

**SELECT \* FROM SUPPLIER**

CREATE TABLE SALESREP(REP\_NO INT PRIMARY KEY,NAME CHAR(10));

INSERT INTO SALESREP VALUES(1,'MIKE');

INSERT INTO SALESREP VALUES(2,'FRED');

INSERT INTO SALESREP VALUES(3,'ALI');

INSERT INTO SALESREP VALUES(4,'SAM');

INSERT INTO SALESREP VALUES(5,'BILL ADAMS');

INSERT INTO SALESREP VALUES(6,'SAM');

**SELECT \* FROM SALESREP**

CREATE TABLE DEPOT(DEPT\_NO INT PRIMARY KEY,LOCATION CHAR(20),ADDRESS CHAR(10),REP\_NO INT REFERENCES SALESREP);

INSERT INTO DEPOT VALUES(1,'NORTH','UK',1);

INSERT INTO DEPOT VALUES(2,'SOUTH','USA',2);

INSERT INTO DEPOT VALUES(3,'LONDON WEST’, ‘USA',3);

INSERT INTO DEPOT VALUES(4,'EAST','NZ',4);

INSERT INTO DEPOT VALUES(5,'WALES','UK',5);

INSERT INTO DEPOT VALUES(6,'NORTH','KENYA',6);

INSERT INTO DEPOT VALUES(16,'SOUTH','UK',2);

**SELECT \* FROM DEPOT**

CREATE TABLE PRODUCT(PRODUCT\_NO INT PRIMARY KEY, DESCRIPTION CHAR(20), PRICE INT, SUPPLIER\_NO INT REFERENCES SUPPLIER, MARKETING\_REP\_NO INT REFERENCES SALESREP,SUPPLY\_DEPOT\_NO INT REFERENCES DEPOT);

INSERT INTO PRODUCT VALUES(120,'REDUCER',1200,1005,5,6);

INSERT INTO PRODUCT VALUES(121,'PLATE',1500, 1004, 3,1);

INSERT INTO PRODUCT VALUES(122,'HANDLE', 700, 1003, 2,4);

INSERT INTO PRODUCT VALUES(124, 'WIDGET MOVER',900, 1005, 4, 2);

INSERT INTO PRODUCT VALUES(136, 'SIZE WIDGET' ,1000, 1001, 1, 5);

INSERT INTO PRODUCT VALUES(137, 'SIZE WIDGET', 15000,1002, 2,16);

**SELECT \* FROM PRODUCT**

CREATE TABLE CUSTOMER(CUSTOMER\_NO INT PRIMARY KEY,NAME CHAR(20),ADDRESS VARCHAR(20),DEPOT\_NO INT REFERENCES DEPOT,CREDIT\_LIMIT INT);

INSERT INTO CUSTOMER VALUES(10,'GARRY SMITH','BRIXTON', 6, 1000);

INSERT INTO CUSTOMER VALUES(20,'PATEL', 'GRANGE', 1, 4000);

INSERT INTO CUSTOMER VALUES(30, 'DRAKE', 'BRIXTON', 4, 7000);

INSERT INTO CUSTOMER VALUES(40 ,'BOB SMITH','LONDON', 2, 10000);

INSERT INTO CUSTOMER VALUES(50 ,'JAMES', 'GRANGE',3 ,5000);

INSERT INTO CUSTOMER VALUES(60, 'NORTON','SAN FRANSISCO', 5 ,17000);

INSERT INTO CUSTOMER VALUES(70, 'JOHN MICHAEL','EUROPE', 16 ,8000);

**SELECT \* FROM CUSTOMER**

CREATE TABLE CORDER(CORDER\_NO INT PRIMARY KEY,CUSTOMER\_NO INT REFERENCES CUSTOMER,DATE\_PLACED VARCHAR2(15),DATE\_DELIVERED VARCHAR2(15));

INSERT INTO CORDER VALUES(200,20,'01-JAN-1993','04-JAN-1993');

INSERT INTO CORDER VALUES(201,40,'17-JAN-1993','20-JAN-1993');

INSERT INTO CORDER VALUES(202,20,'01-JAN-1993','04-JAN-1993');

INSERT INTO CORDER VALUES(203,30,'02-FEB-1995','05-FEB-1995');

INSERT INTO CORDER VALUES(204,10,'13-MAR-1996','16-MAR-1996');

INSERT INTO CORDER VALUES(205,70,'31-JAN-1993','03-FEB-1993');

INSERT INTO CORDER VALUES(206,40,'01-JAN-1994','04-JAN-1994');

INSERT INTO CORDER VALUES(207,20,'02-AUG-1994','05-AUG-1994');

**SELECT \* FROM CORDER**

CREATE TABLE OLINE(CORDER\_NO INT REFERENCES CORDER,PRODUCT\_NO INT REFERENCES PRODUCT,QUANTITY INT);

INSERT INTO OLINE VALUES(200,120,5);

INSERT INTO OLINE VALUES(201,121,10);

INSERT INTO OLINE VALUES(202,120,5);

INSERT INTO OLINE VALUES(203,122,20);

INSERT INTO OLINE VALUES(204,136,30);

INSERT INTO OLINE VALUES(205,124,15);

INSERT INTO OLINE VALUES(206,136,30);

**SELECT \* FROM OLINE**

CREATE TABLE STOCK(DEPOT\_NO INT REFERENCES DEPOT,PRODUCT\_NO INT REFERENCES PRODUCT,QUANTITY INT,RACK INT,BIN\_NO INT);

INSERT INTO STOCK VALUES(1,120,50,1,1);

INSERT INTO STOCK VALUES(2,137,100,10,2);

INSERT INTO STOCK VALUES(3,136,40,2,3);

INSERT INTO STOCK VALUES(4,120,60,7,1);

INSERT INTO STOCK VALUES(5,121,90,5,4);

INSERT INTO STOCK VALUES(6,124,120,4,7);

INSERT INTO STOCK VALUES(16,122,80,10,8);

**SELECT \* FROM STOCK**

**TUTORIAL 2:**

UPDATE PRODUCT SET PRICE=2000 WHERE DESCRIPTION='PLATE';

UPDATE CUSTOMER SET CREDIT\_LIMIT=8000 WHERE ADDRESS='GRANGE';

ALTER TABLE CUSTOMER MODIFY ADDRESS VARCHAR(30);

create table cust1(cust\_no number,name char(10), address varchar(20), rep\_no number);

insert into cust1 values(1,'shreya','hgfvb',3);

insert into cust1 values(2,'uyt','hnb',5);

insert into cust1 values(3,'nbvhgh','hb',8);

delete from cust1 where cust\_no=2;

alter table cust1 add column email\_id varchar2(20);

desc cust1

select \* from cust1

alter from cust1 drop column email\_id;

delete \* from cust1;

drop table cust1

**tutorial 3:**

select sysdate "DATE" from dual;  
select to\_char (sysdate,'MM-DD-YYYY HH24:MI:SS') "NOW" from dual;  
SELECT \* FROM TAB;  
SELECT CUSTOMER\_NO,NAME FROM CUSTOMER  
SELECT \* FROM PRODUCT WHERE PRODUCT\_NO = '121'OR PRODUCT\_NO='136';  
SELECT \* FROM DEPOT WHERE REP\_NO=5;  
SELECT PRODUCT\_NO,DESCRIPTION FROM PRODUCT WHERE SUPPLIER\_NO=1005;  
SELECT \* FROM CUSTOMER WHERE NAME LIKE '%SM\_T%';  
SELECT \* FROM CORDER WHERE DATE\_PLACED BETWEEN '1-JAN-1993' AND '31-JAN-1993';  
SELECT REP\_NO,DEPT\_NO,ADDRESS FROM DEPOT WHERE LOCATION='NORTH' AND ADDRESS='UK';  
SELECT COUNT(QUANTITY)"TOTAL\_ITEMS" FROM STOCK  
SELECT COUNT(QUANTITY)"TOTAL" FROM OLINE WHERE CORDER\_NO=200;  
SELECT DESCRIPTION FROM PRODUCT ORDER BY DESCRIPTION DESC;

**tutorial 4:**

select avg(price)"avg\_price" from product;  
select min(price)"min\_price" from product;  
select max(price)"max\_price" from product;  
select count(price)"totalno\_price" from product;  
select count(\*)"total\_no" from product;  
select sum(price)"sum\_price" from product;  
  
select abs(-100) "absolute" from dual;  
select power(3,4) "power" from dual;  
select sqrt(144) "sqrt" from dual;  
select greatest(3,6,9) "greatest" from dual;  
select least(3,6,9) "least" from dual;  
select round(3.698,2) "round\_value" from dual;  
select mod(100,34) "mod-value" from dual;  
  
select lower('hello How Are YOU') "lower" from dual;  
select upper('heLlo How Are YOU') "upper" from dual;  
select initcap('heLLlo How Are YOU') "init\_cap" from dual;  
select length('hello How Are YOU') "length" from dual;  
select translate('hello How Are YOU','o','s') "translate" from dual;  
select rtrim('hello How Are YOUuuuuu','u') "trim" from dual;  
select ltrim('hhhhello How Are YOU','h') "trim" from dual;  
select lpad('hello How Are YOU',20,'\*') "l\_pad" from dual;  
select rpad('hello How Are YOU',20,'\*') "r\_pad" from dual;  
  
select to\_char(sysdate,'DD-MM-YYYY') "date" from dual;  
select to\_date('12-06-2017','DD-MM-YYYY') "date"from dual;  
select last\_day('12-06-2017') "last\_date" from dual;  
select months\_between(sysdate-365,sysdate+365) "tot\_months\_bet" from dual;  
  
select floor(months\_between(sysdate,to\_date('26-12-1999','DD-MM-YYYY'))/12) from dual;

**tutorial 5:**

1  
SELECT [SALESREP.NAME](http://salesrep.name/),DEPOT.LOCATION FROM SALESREP  
INNER JOIN DEPOT ON SALESREP.REP\_NO=DEPOT.REP\_NO;  
  
2  
SELECT  DEPOT.LOCATION, [CUSTOMER.NAME](http://customer.name/) FROM DEPOT  
INNER JOIN CUSTOMER ON DEPOT.DEPT\_NO=CUSTOMER.DEPOT\_NO  
WHERE REP\_NO=3;  
  
3  
SELECT SALESREP.REP\_NO, DEPOT.LOCATION,DEPOT.ADDRESS FROM SALESREP  
INNER JOIN DEPOT ON SALESREP.REP\_NO=DEPOT.REP\_NO   
WHERE NAME='MIKE';  
  
4  
SELECT CUSTOMER.ADDRESS,CORDER.DATE\_PLACED,OLINE.PRODUCT\_NO,OLINE.QUANTITY FROM CUSTOMER  
INNER JOIN CORDER ON CUSTOMER.CUSTOMER\_NO=CORDER.CUSTOMER\_NO  
INNER JOIN OLINE ON CORDER.CORDER\_NO=OLINE.CORDER\_NO  
WHERE NAME='PATEL';  
  
5  
SELECT SUM(QUANTITY) FROM  STOCK  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=STOCK.DEPOT\_NO;   
  
6  
SELECT SUM(QUANTITY) FROM OLINE  
INNER JOIN CORDER ON CORDER.CORDER\_NO=OLINE.CORDER\_NO  
WHERE CORDER.CORDER\_NO=200;  
  
7  
SELECT [CUSTOMER.NAME](http://customer.name/) FROM CUSTOMER  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=CUSTOMER.DEPOT\_NO  
INNER JOIN SALESREP ON SALESREP.REP\_NO=DEPOT.REP\_NO  
WHERE [SALESREP.NAME](http://salesrep.name/)='FRED';  
  
8  
SELECT [CUSTOMER.NAME](http://customer.name/),CORDER.DATE\_PLACED,OLINE.QUANTITY,PRODUCT.DESCRIPTION FROM CUSTOMER  
INNER JOIN CORDER ON CUSTOMER.CUSTOMER\_NO=CORDER.CUSTOMER\_NO  
INNER JOIN OLINE ON CORDER.CORDER\_NO=OLINE.CORDER\_NO  
INNER JOIN PRODUCT ON PRODUCT.PRODUCT\_NO=OLINE.PRODUCT\_NO  
WHERE CUSTOMER.DEPOT\_NO=2;  
  
9  
SELECT [SUPPLIER.NAME](http://supplier.name/),[SALESREP.NAME](http://salesrep.name/) FROM SUPPLIER  
INNER JOIN PRODUCT ON SUPPLIER.SUPPLIER\_NO=PRODUCT.SUPPLIER\_NO  
INNER JOIN SALESREP ON SALESREP.REP\_NO=PRODUCT.MARKETING\_REP\_NO;  
  
10  
SELECT [SUPPLIER.NAME](http://supplier.name/),[SALESREP.NAME](http://salesrep.name/) FROM SUPPLIER  
INNER JOIN PRODUCT ON SUPPLIER.SUPPLIER\_NO=PRODUCT.SUPPLIER\_NO  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=PRODUCT.SUPPLY\_DEPOT\_NO  
INNER JOIN SALESREP ON SALESREP.REP\_NO=PRODUCT.MARKETING\_REP\_NO;  
  
11  
SELECT [CUSTOMER.NAME](http://customer.name/) FROM CUSTOMER  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=CUSTOMER.DEPOT\_NO  
INNER JOIN PRODUCT ON DEPOT.DEPT\_NO=PRODUCT.SUPPLY\_DEPOT\_NO  
INNER JOIN SALESREP ON SALESREP.REP\_NO=PRODUCT.MARKETING\_REP\_NO  
WHERE [SALESREP.NAME](http://salesrep.name/)='ALI';  
  
12  
SELECT [CUSTOMER.NAME](http://customer.name/) FROM CUSTOMER  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=CUSTOMER.DEPOT\_NO  
WHERE [CUSTOMER.NAME](http://customer.name/)='DRAKE';  
  
13  
SELECT DESCRIPTION,(PRICE+PRICE/10) FROM PRODUCT;   
  
14  
SELECT PRODUCT.DESCRIPTION,OLINE.QUANTITY,PRODUCT.PRICE FROM PRODUCT  
INNER JOIN OLINE ON PRODUCT.PRODUCT\_NO=OLINE.PRODUCT\_NO  
INNER JOIN DEPOT ON DEPOT.DEPT\_NO=PRODUCT.SUPPLY\_DEPOT\_NO  
INNER JOIN CUSTOMER ON DEPOT.DEPT\_NO=CUSTOMER.DEPOT\_NO  
WHERE CUSTOMER.CUSTOMER\_NO=20;  
  
15  
SELECT DEPOT.LOCATION,DEPOT.ADDRESS FROM DEPOT  
INNER JOIN PRODUCT ON DEPOT.DEPT\_NO=PRODUCT.SUPPLY\_DEPOT\_NO  
INNER JOIN STOCK ON PRODUCT.PRODUCT\_NO=STOCK.PRODUCT\_NO  
WHERE PRODUCT.PRODUCT\_NO !=122;  
  
16  
SELECT [CUSTOMER.NAME](http://customer.name/),CORDER.CORDER\_NO FROM CUSTOMER  
LEFT JOIN CORDER ON CUSTOMER.CUSTOMER\_NO=CORDER.CUSTOMER\_NO;

**Tut 6:**

1

select description from product where supplier\_no in ( select supplier\_no from supplier where name='SMITH')

2

select product\_no from product where product\_no not in(select customer\_no from customer where customer\_no in (select customer\_no from corder where customer\_no=20));

3

select location,address from depot where DEPT\_NO IN(select dept\_no from stock where PRODUCT\_NO in (select PRODUCT\_NO from PRODUCT where location='WALES'));

4

select customer\_no,date\_placed,date\_delivered from  corder where exists(select corder\_no from oline where product\_no in(select PRODUCT\_NO from PRODUCT where product\_no=137));

5

select dept\_no from depot where dept\_no not in(select DEPOT\_NO from stock where product\_no not in(select product\_no from product where SUPPLIER\_NO not in(select SUPPLIER\_NO from supplier where NAME='RINGWORLD')));

6

select location,address from depot where DEPT\_NO IN(select depot\_no from stock where PRODUCT\_NO in (select product\_NO from PRODUCT where SUPPLIER\_NO in(select SUPPLIER\_NO from supplier where NAME='BABYLON'  )));

7

select product\_no,supplier\_no from product where SUPPLIER\_NO in(select SUPPLIER\_NO from supplier group by supplier\_no);

8

select [supplier.name](http://supplier.name/),depot.location,count(product.product\_no) from supplier

inner join product on supplier.supplier\_no=product.SUPPLIER\_NO

inner join stock on product.PRODUCT\_NO=stock.PRODUCT\_NO

inner join depot on stock.DEPOT\_NO=depot.DEPT\_NO

group by [supplier.name](http://supplier.name/),depot.location

9

select [supplier.name](http://supplier.name/),product.description from supplier

inner join product on supplier.supplier\_no=product.supplier\_no

order by description;

10

select [customer.name](http://customer.name/),corder.date\_placed,count(customer.customer\_no)  from customer

inner join corder on customer.customer\_no=corder.customer\_no

group by [customer.name](http://customer.name/),corder.date\_placed

**tut 7:**

1

select supplier.supplier\_no,count(product\_no) from supplier

inner join product on supplier.supplier\_no=product.supplier\_no

group by supplier.supplier\_no

2

select [supplier.name](http://supplier.name/),depot.location,count(product.product\_no) from supplier

inner join product on supplier.supplier\_no=product.SUPPLIER\_NO

inner join stock on product.PRODUCT\_NO=stock.PRODUCT\_NO

inner join depot on stock.DEPOT\_NO=depot.DEPT\_NO

group by [supplier.name](http://supplier.name/),depot.location

3

select depot.dept\_no,avg(credit\_limit) from depot

inner join customer on depot.DEPT\_NO=customer.depot\_no

group by depot.dept\_no having avg(credit\_limit)>2000

4

select count(oline.quantity),oline.product\_no from customer

inner join corder on customer.customer\_no=corder.customer\_no

inner join oline on corder.corder\_no=oline.corder\_no

group by oline.product\_no

5

select product\_no,max(quantity) from stock

inner join depot on depot.dept\_no=stock.depot\_no

group by product\_no

6

select address,min(credit\_limit) from customer

group by address

7

select supplier.supplier\_no,product.product\_no,sum(price) from supplier

inner join product on supplier.supplier\_no=product.supplier\_no

group by supplier.supplier\_no,product.product\_no having sum(price)<1000

8

select corder.date\_placed,count(customer.customer\_no)  from customer

inner join corder on customer.customer\_no=corder.customer\_no

group by corder.date\_placed

9

select sum(quantity),rack from stock

group by rack

10

select count(customer.customer\_no),depot.location from depot

inner join customer on depot.DEPT\_NO=customer.depot\_no

group by depot.location

**tut 8:**

1a-if else

select price,

case when price<1000 then 'low'

else 'high'

end as rating from product

1b-nested if

select price,

case when price<=1000 then 'medium'

when price<500 then 'low'

else 'high'

end as rating from product

1c

select price,

case when price<1000 then 'medium'

when price<500 then 'low'

else 'high'

end as rating,quantity,

case when quantity<10 then 'low'

when quantity=10 then 'medium'

else 'high'

end as rating from product

inner join oline on product.product\_no=oline.product\_no

2

create view vproduct

as select product\_no,description,price

from product

3

create or replace view vorder

as select oline.corder\_no, product.product\_no, product.description,customer.name,oline.quantity

from product

inner join oline on product.product\_no=oline.product\_no

inner join corder on corder.corder\_no=oline.corder\_no

inner join customer on customer.customer\_no=corder.corder\_no

where customer.address='BRIXTON'

4

insert into vproduct values (135,'Sofa',35000)

5

update vorder set quantity=25

where name='DRAKE'

6

delete from vproduct where product\_no=121

7

delete from vproduct

8

select supplier\_no,name from supplier

union

select customer\_no,name from customer

9

select product\_no from product

minus

select product\_no from customer

inner join product on product.supply\_depot\_no=customer.depot\_no

10

select name from supplier

intersect

select name from customer

11

select depot\_no,customer\_no from customer

except

select dept\_no from depot