

Les Bases de Données : SQL

Série d'exercices N° 1

```

CREATE TABLE `client` (
  `numCli`      TEXT,
  `nomCli`      TEXT NOT NULL,
  `adresseCli`  TEXT NOT NULL,
  PRIMARY KEY(`numCli`)
);

CREATE TABLE `facture` (
  `numFact`     TEXT,
  `dateFact`    TEXT NOT NULL,
  `numCli`      TEXT NOT NULL,
  PRIMARY KEY(`numFact`),
  FOREIGN KEY (`numCli`) REFERENCES `client` (`numCli`)
);

CREATE TABLE `produit` (
  `refProd`     INTEGER ,
  `desigProd`   TEXT NOT NULL,
  `prixProd`    REAL NOT NULL,
  PRIMARY KEY(`refProd`)
);

CREATE TABLE `ligne_facture` (
  `numFact`     TEXT,
  `refProd`     INTEGER,
  `quantite`    REAL NOT NULL,
  PRIMARY KEY(`numFact`, `refProd`),
  FOREIGN KEY (`numFact`) REFERENCES `facture` (`numFact`),
  FOREIGN KEY (`refProd`) REFERENCES `produit` (`refProd`)
);

```

```

INSERT INTO client VALUES('C1','Dastugue','Cannes') ;
Insert into client values('C2', 'Rossi', 'Vic en Bigorre') ;
Insert into client values('C3','Mota','Morsang sur orge') ;
Insert into client values('C4','Lemaini','Cacha') ;

```

```

Insert into facture values('F1','14/10/06','C3');
Insert into facture values('F2','14/10/06','C1');
Insert into facture values('F3','16/10/06','C2');

```

```
Insert into facture values('F4','21/10/06','C3');
Insert into facture values('F5','21/10/06','C1');
```

```
Insert into produit values(1,'Crème hydratante','22,10');
Insert into produit values(2,'Soin des lèvres','14,69');
Insert into produit values(3,'Café expresso','4,26');
Insert into produit values(4,'Lessive','8,48');
Insert into produit values(5,'Chocolat noir','2,56');
Insert into produit values(6,'Riz long','11,66');
```

```
Insert into ligne_facture values('F1',1,10);
Insert into ligne_facture values('F1',2,7);
Insert into ligne_facture values('F1',3,5);

Insert into ligne_facture values('F2',4,10);
Insert into ligne_facture values('F2',5,20);

Insert into ligne_facture values('F3',3,3);
Insert into ligne_facture values('F3',6,15);

Insert into ligne_facture values('F4',5,4);
Insert into ligne_facture values('F5',3,8);
```

Question 2 :

```
import sqlite3
con=sqlite3.connect("factures.db")
cur=con.cursor()
req="""
insert into Ligne_Facture (Numfact,refprod,quantite) values (?,?,:)
"""
liste=[('F1',1,10),('F1',2,7),
        ('F1',3,5), ('F2',4,10),
        ('F2',5,20), ('F3',6,15),
        ('F3',3,3), ('F4',5,4),
        ('F5',3,8)]
cur.executemany(req,liste)
con.commit(); con.close()
```

```
--Q3-----
```

```
SELECT adressecli  
from client
```

```
--Q4-----
```

```
select *  
from produit
```

```
--Q5-----
```

```
select *  
from produit  
where prixprod <= 10
```

```
--Q6-----
```

```
SELECT produit.refprod,desigprod  
FROM produit, ligne_facture  
WHERE produit.refprod = ligne_facture.refprod  
AND numfact = 'F3'
```

```
--Q7-----
```

```
SELECT P.*  
FROM client as C, facture as F, produit P,  
ligne_facture as Lf  
WHERE C.numcli = F.numcli  
AND F.numfact = LF.numfact  
AND LF.refprod = P.refprod  
AND C.nomcli = 'Rossi'
```

```
--Q8-----  
SELECT * FROM produit  
except  
SELECT P.*  
FROM client as C, facture as F, produit P,  
ligne_facture as Lf  
WHERE C.numcli = F.numcli AND F.numfact = LF.numfact  
AND LF.refprod = P.refprod AND C.nomcli = 'Rossi'
```

```
--Q9-----  
SELECT P.*  
FROM client as C, facture as F, produit P,  
ligne_facture as Lf  
WHERE C.numcli = F.numcli  
AND F.numfact = LF.numfact  
AND LF.refprod = P.refprod  
AND (C.nomcli = 'Rossi' or C.nomcli = 'Mota')
```

```
--Q10-----  
SELECT P.*  
FROM client as C, facture as F, produit P,  
ligne_facture as Lf  
WHERE C.numcli = F.numcli  
AND F.numfact = LF.numfact  
AND LF.refprod = P.refprod  
AND C.nomcli = 'Rossi'  
except  
SELECT P.*  
FROM client as C, facture as F, produit P,  
ligne_facture as Lf  
WHERE C.numcli = F.numcli  
AND F.numfact = LF.numfact  
AND LF.refprod = P.refprod AND C.nomcli = 'Mota'
```

```
--Q11-----  
SELECT * FROM produit  
WHERE refprod not in (  
        select refprod from ligne_facture  
    )
```

```
--Q12-----  
SELECT * FROM client  
WHERE numcli not in (  
        select numcli from facture  
    )
```

```
--Q13-----  
update ligne_facture  
set quantite = 10  
where numfact = 'F5' and refprod = 3
```

```
--Q14-----  
update produit  
set prixprod = prixprod * 1.03
```

```
--Q16-----  
select * from produit  
where desigprod like '%ca%'
```

```
--Q17-----  
select avg(prixprod) as 'prix moyen'  
from produit
```

```
--Q18-----  
select  LF.numfact,  
        sum(P.prixprod * LF.quantite) as 'Total'  
from    produit P, ligne_facture LF, facture as F  
where   P.refprod = LF.refprod  
and     F.numfact = LF.numfact  
group  by F.datefact
```

```
--Q19-----  
select C.*  
from  client as C, facture as F  
where C.numcli = F.numcli  
and   F.datefact between '13/10/06' and '18/10/06'
```

```
--Q20-----  
SELECT  C.* ,sum(P.prixprod * LF.quantite) as 'Total'  
FROM    client as C, facture as F, produit P,  
        ligne_facture as Lf  
WHERE   C.numcli = F.numcli  
AND     F.numfact = LF.numfact  
AND     LF.refprod = P.refprod  
group  by C.numcli  
having  sum(P.prixprod * LF.quantite)>200  
order  by C.nomcli
```