



Année universitaire: 2022-2023

Compte rendu TP sql – les vues

Module : base de données avancées 1618

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1. Création d'une base de données

```
Création de la table magasin
CREATE TABLE Magasin (
  numMag VARCHAR2(30),
  locMag VARCHAR2(30)
);
 Création de la table fournisseur
CREATE TABLE Fournisseur (
  numFour VARCHAR2(30),
  nomFour VARCHAR2(30),
  villeFour VARCHAR2(30)
);
Création de la table client
CREATE TABLE Client (
  numClt VARCHAR2(30),
  nomClt VARCHAR2(30),
  paysClt VARCHAR2(30),
  villeClt VARCHAR2(30)
);
Création de la table article
CREATE TABLE Article (
  numArt VARCHAR(30),
  des VARCHAR2(30),
  poid NUMBER(20),
  couleur VARCHAR2(30),
  prixAchat NUMBER(6,4),
  numFour VARCHAR2(300)
);
```

Création de la table vente

```
CREATE TABLE Vente (
numClt VARCHAR2(30),
numArt VARCHAR2(30),
numMag VARCHAR2(30),
qte NUMBER(6,4),
prixVente NUMBER(6,4),
dat DATE
);
```

```
CREATE TABLE Magasin(
 numMag VARCHAR2(30),
                    locMag VARCHAR2(30)
Statement 2
                CREATE TABLE Fournisseur(
 numFour VARCHAR2(30),
                    nomFour VARCHAR2(30),
                    villeFour VARCHAR2(30)
                Table created.
Statement 3
                CREATE TABLE Client(
 Û
        Edit
                    numClt VARCHAR2(30),
                    nomClt VARCHAR2(30),
                     paysClt VARCHAR2(30),
                    villeClt VARCHAR2(30)
```

```
Statement
                  CREATE TABLE Article(
                       numAlt VARCHAR2(30),
                       des VARCHAR2(30),
                       poids NUMBER(20),
                       couleur VARCHAR2(30),
                       prixAchat NUMBER(10,6),
                       numFour VARCHAR2(30)
                  Table created.
Statement 5
                  CREATE TABLE Vente(
                       numClt VARCHAR2(30),
numAlt VARCHAR2(30),
                       numMag VARCHAR2(30),
                        qte NUMBER(10,6),
                       prixVente NUMBER(10,6),
                         dat DATE
                  Table created.
```

2. Mise à jour de la structure d'une table

Clé primaire de la table magasin

ALTER TABLE Magasin

ADD CONSTRAINT pk_numMag PRIMARY KEY (numMag);

Clé primaire de la table fournisseur

ALTER TABLE Fournisseur

ADD CONSTRAINT pk_numFour PRIMARY KEY (numFour);

Clé primaire de la table client

ALTER TABLE Client

ADD CONSTRAINT pk_numClt PRIMARY KEY (numClt);

Clé primaire de la table article

ALTER TABLE Article

ADD CONSTRAINT pk_numArt PRIMARY KEY (numArt);

Clé primaire de la table vente

ALTER TABLE Vente

ADD CONSTRAINT pk_numClt PRIMARY KEY (numClt);

ALTER TABLE Vente

ADD CONSTRAINT pk_numArt PRIMARY KEY (numArt);

ALTER TABLE Vente

ADD CONSTRAINT pk_numMag PRIMARY KEY (numMag);

Clé étrangère de la table article

ALTER TABLE Article

ADD CONSTRAINT fk_numFour FOREIGN KEY (numFour)

REFERENCES Fournisseur(numFour);

Clé étrangère de la table vente

ALTER TABLE Vente

ADD CONSTRAINT fk_numClt FOREIGN KEY (numClt)

REFERENCES Client(numClt);

ALTER TABLE Vente

ADD CONSTRAINT fk numArt FOREIGN KEY (numArt)

REFERENCES Article(numArt);

ALTER TABLE Vente

ADD CONSTRAINT fk_numMag FOREIGN KEY (numMag)

REFERENCES Magasin(numMag);





3. Insertion des données

Insertion des données dans la table client

```
INSERT INTO Client VALUES ('C1','Alaoui Samir','Maroc','fes');
INSERT INTO Client VALUES ('C2','Hammouri Rachid','Maroc','fes');
INSERT INTO Client VALUES ('C3','','Maroc','El hoceima');
INSERT INTO Client VALUES ('C4','Chaoui Khalid ','France','Paris');
SELECT * FROM Client;
```

NUMCLT	NOMCLT	PAYSCLT	VILLECLT
C1	Alaoui Samir	Maroc	Fes
C2	Hammouri Rachid	Maroc	Fes
СЗ		Maroc	El Houceima
C4	Chaoui Khalid	France	Paris

Insertion des données dans la table fournisseur

```
INSERT INTO Fournisseur VALUES ('F1','El Fassi Ali','Casa');
INSERT INTO Fournisseur VALUES ('F2','El Meknassi Amin','Casa');
INSERT INTO Fournisseur VALUES ('F3','El Houari Hassan','Tanger');
INSERT INTO Fournisseur VALUES ('F4','Slaoui Khalid ','Tanger');
SELECT * FROM Fournisseur;
```

NUMFOUR	NOMFOUR	VILLEFOUR
F1	EL Fassi Ali	Casa
F2	El Meknassi Amine	Casa
F3	El Houari Hassan	Tanger
F4	Slaoui Khalid	Tanger

Insertion des données dans la table article

```
INSERT INTO Article VALUES ('A1','Des1',200,'verte',100.5,'F3');
INSERT INTO Article VALUES ('A2','Des2',200,'verte',150.5,'F2');
INSERT INTO Article VALUES ('A3','Des3',300,'Bleu',200.5,'F2');
INSERT INTO Article VALUES ('A4','Des4',300,'Bleu',130,'F2');
INSERT INTO Article VALUES ('A5','Des5',500,'Violet',70,'F1');
INSERT INTO Article VALUES ('A6','Des6',550,'Rouge',50,'F4');
INSERT INTO Article VALUES ('A7','Des7',600,'Jaune',60,'F4');
```

SELECT * FROM Fournisseur;

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR	
A1	Des1	200	Vert	100.5	F3	
A2	Des2	200	Vert	150.5	F2	
А3	Des3	300	Bleu	200.5	F2	
A4	Des4	300	Bleu	130	F2	
A5	Des5	500	Violet	70	F1	
A6	Des6	550	Rouge	50	F4	
A7	Des7	600	Jaune	60	F4	

Insertion des données dans la table vente

INSERT INTO Vente VALUES ('C1','A1','M1',20.250,330, TO_DATE('03-10-2020','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C2','A4','M1',100, 300, TO_DATE('03-10-2018','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3','A2','M3',500, 380.5, TO_DATE('03-10-2019','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1','A3','M2',120.2, 195.5, TO_DATE('03-10-2021','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C2','A1','M3',30, 150.750, TO_DATE('03-10-2022','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1','A5','M1',750.5, 210, TO_DATE('03-10-2021','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1','A1','M1',600.7, 200, TO_DATE('03-10-2017','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3','A4','M3',300, 430.5, TO_DATE('03-10-2019','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1','A1','M2',20, 220, TO_DATE('03-10-2018','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3','A5','M2',100, 130.3, TO_DATE('03-10-2017','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C4','A6','M4',200, 85.5, TO_DATE('03-10-2022','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C4','A6','M4',300, 90, TO_DATE('03-10-2023','DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C4','A6','M4',300, 90, TO_DATE('03-10-2023','DD-MM-YYYY'));

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C1	A2	M1.	20.25	330	12-0CT-20
C2	A4	M1	100	300	04-FEB-18
СЗ	A2	МЗ	500	380.5	25-FEB-19
C1	АЗ	M2	120.2	195.5	15-JUN-21
C2	A1	МЗ	30	150.75	30-MAY-22
C1	A5	M1	750.5	210	14-DEC-21
C1	A1	M1	600.7	200	23-MAR-17
СЗ	A4	МЗ	300	430.5	17-JUN-19
C1	A1	M2	20	220	22-MAR-18
C3	A5	M2	100	130.3	03-0CT-17
C4	A6	M4	200	85.5	17-JUL-22
C4	A7	M4	300	90	25-JAN-23

Insertion des données dans la table magasin

```
INSERT INTO Magasin VALUES ('M1','Chamal');
INSERT INTO Magasin VALUES ('M2','Ain sebaa');
INSERT INTO Magasin VALUES ('M3','Elmanzel');
INSERT INTO Magasin VALUES ('M4','Tamaris');
SELECT * FROM Magasin;
```

```
INSERT INTO Vente VALUES ('C1', 'A2', 'M1', 20.250, 330, TO_DATE('12-10-2020', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C2', 'A4', 'M1', 100, 300, TO_DATE('04-02-2018', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3', 'A2', 'M3', 500, 380.5, TO_DATE('15-06-2021', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1', 'A3', 'M2', 120.2, 195.5, TO_DATE('15-06-2021', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C2', 'A1', 'M3', 30, 150.750, TO_DATE('30-05-2022', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1', 'A5', 'M1', 750.5, 210, TO_DATE('14-12-2021', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1', 'A1', 'M1', 600.7, 200, TO_DATE('23-03-2017', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3', 'A4', 'M3', 300, 430.5, TO_DATE('17-06-2019', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C1', 'A1', 'M2', 20, 220, TO_DATE('22-03-2018', 'DD-MM-YYYY'));
INSERT INTO Vente VALUES ('C3', 'A5', 'M2', 100, 130.3, TO_DATE('03-10-2017', 'DD-MM-YYYY'));
INSERT INTO Vente Values('C4', 'A6', 'M4', 200, 85.5, TO_DATE('17-07-2022', 'DD-MM-YYYY'));
INSERT INTO Vente Values('C4', 'A7', 'M4', 300, 90, TO_DATE('25-01-2023', 'DD-MM-YYYY'));
```

4 . Mise à jour du contenu d'une table

UPDATE Client SET nomClt = 'mohamed Laghribi' WHERE numClt = 'C3';
SELECT * FROM Client;

NUMCLT	NOMCLT	PAYSCLT	VILLECLT
C1	Alaoui Samir	Maroc	Fes
C2	Hammouri Rachid	Maroc	Fes
С3	Mohammed Laghribi	Maroc	El Houceima
C4	Chaoui Khalid	France	Paris

UPDATE Article set prixAchat = prixAchat + 20 WHERE numArt='A5';
SELECT * FROM Article;

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A1	Des1	200	Vert	100.5	F3
A2	Des2	200	Vert	150.5	F2
А3	Des3	300	Bleu	200.5	F2
A4	Des4	300	Bleu	130	F2
A5	Des5	500	Violet	90	F1
A6	Des6	550	Rouge	50	F4

UPDATE Article set poids=poids+10;

SELECT * FROM Article;

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A1	Des1	210	Vert	100.5	F3
A2	Des2	210	Vert	150.5	F2
АЗ	Des3	310	Bleu	200.5	F2
A4	Des4	310	Bleu	130	F2
A5	Des5	510	Violet	70	F1
A6	Des6	560	Rouge	50	F4
A7	Des7	610	Jaune	60	F4

CREATE TABLE Frs_Casa AS

SELECT * FROM Fournisseur

WHERE villeFour= 'Casa';

SELECT * FROM Frs_Casa;

F1 EL Fassi Ali Casa F2 El Meknassi Amine Casa	NUMFOUR	NOMFOUR	VILLEFOUR
F2 El Meknassi Amine Casa	F1	EL Fassi Ali	Casa
	F2	El Meknassi Amine	Casa

5. Interrogation de la base de données

1.Requetes simples

1: SELECT villeFour, nomFour FROM Fournisseur;

NOMFOUR	VILLEFOUR
EL Fassi Ali	Casa
El Meknassi Amine	Casa
El Houari Hassan	Tanger
Slaoui Khalid	Tanger

2: SELECT DISTINCT villeFour FROM Fournisseur;



3 : SELECT des, poids FROM Article ;

DES	POIDS
Des1	210
Des2	210
Des3	310
Des4	310
Des5	510
Des6	560
Des7	610

4 : SELECT * FROM Client WHERE numClt = 'C1';

NUMCLT	NOMCLT	PAYSCLT	VILLECLT
C1	Alaoui Samir	Maroc	Fes

5 : SELECT poids FROM Article WHERE numArt = 'A3';



6 : SELECT numArt , des FROM Article WHERE couleur = 'vert' ;

NUMART	DES
A1	Des1
A2	Des2

7 : SELECT des FROM Article WHERE couleur = 'vert' AND prixAchat > 50;



8 : SELECT numClt , nomClt FROM Client WHERE villClt = 'fes' AND nomClt LIKE ='H%';

9: SELECT des FROM Article WHERE des LIKE ='%s2' AND couleur ='vert';

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A2	Des2	210	Vert	150.5	F2

10 : SELECT poid FROM Article WHERE poid BETWEEN 200 AND 300 ;

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A1	Des1	210	Vert	100.5	F3
A2	Des2	210	Vert	150.5	F2

11 : SELECT * FROM Fournisseur WHERE villeFour = 'Tanger';

NUMFOUR	NOMFOUR	VILLEFOUR
F3	El Houari Hassan	Tanger
F4	Slaoui Khalid	Tanger

12 : SELECT DISTINCT locMag FROM Magasin ;



13: SELECT * FROM Vente ORDER BY dat ASC;

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C1	A1	M1	600.7	200	23-MAR-17
С3	A5	M2	100	130.3	03-0CT-17
C2	A4	M1	100	300	04-FEB-18
C1	A1	M2	20	220	22-MAR-18
C3	A2	МЗ	500	380.5	25-FEB-19
C3	A4	МЗ	300	430.5	17-JUN-19
C1	A2	M1	20.25	330	12-0CT-20
C1	A3	M2	120.2	195.5	15-JUN-21
C1	A5	M1	750.5	210	14-DEC-21
C2	A1	МЗ	30	150.75	30-MAY-22
C4	A6	M4	200	85.5	17-JUL-22
C4	A7	M4	300	90	25-JAN-23

14 : SELECT nomClt, villClt , paysClt FROM Client ORDER BY nomClt ASC ;

NOMCLT	PAYSCLT	VILLECLT
Alaoui Samir	Maroc	Fes
Chaoui Khalid	France	Paris
Hammouri Rachid	Maroc	Fes
Mohammed Laghribi	Maroc	El Houceima

15 : SELECT * FROM Magasin WHERE locMag LIKE = 'E%' ;

16 : SELECT * FROM Fournisseur WHERE nomFour LIKE='%n%';

NUMFOUR	NOMFOUR	VILLEFOUR
F2	El Meknassi Amine	Casa
F3	El Houari Hassan	Tanger

17 : SELECT * FROM Client WHERE nomClt LIKE = '__mm%';

NUMCLT	NOMCLT	PAYSCLT	VILLECLT	
C2	Hammouri Rachid	Maroc	Fes	

18 : SELECT * FROM vent WHERE dat = TO DATE('03-10-2017','DD-MM-YYYY');

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
С3	A5	M2	100	130.3	03-0CT-17

19 : SELECT COUNT(*) nomberDesArticles FROM Article ;



20 : SELECT COUNT(*) NomberDesVentes FROM vente ;



21 : SELECT A.des , F.numFour FROM Article A , Fournisseur F WHERE A.numFour = F.numFour ;

DES	NOMFOUR
Des1	El Houari Hassan
Des2	El Meknassi Amine
Des3	El Meknassi Amine
Des4	El Meknassi Amine
Des5	EL Fassi Ali
Des6	Slaoui Khalid
Des7	Slaoui Khalid

22: SELECT A.* FROM Article A, Fournisseur F WHERE A.numFour = F.numFour AND F.villeFour= 'Tanger';

A1 Des1 210 Vert 100.5 F3						
	NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A6 Des6 560 Rouge 50 F4	A1	Des1	210	Vert	100.5	F3
	A6	Des6	560	Rouge	50	F4
A7 Des7 610 Jaune 60 F4	A7	Des7	610	Jaune	60	F4

23 : SELECT V.* FROM Article A , Vente V WHERE A.numArt = V.numArt AND A.couleur ='vert';

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C1	A2	M1.	20.25	330	12-0CT-20
С3	A2	мз	500	380.5	25-FEB-19
C2	A1	мз	30	150.75	30-MAY-22
C1	A1	M1	600.7	200	23-MAR-17
C1	A1	M2	20	220	22-MAR-18

24 : SELECT * FROM Article WHERE villeFour IN (SELECT villeFour FROM Fournisseur WHERE villeFour = 'Casa' OR nomFour LIKE 'S%');

NUMART	DES	POIDS	COULEUR	PRIXACHAT	NUMFOUR
A2	Des2	210	Vert	150.5	F2
А3	Des3	310	Bleu	200.5	F2
A4	Des4	310	Bleu	130	F2
A 5	Des5	510	Violet	70	F1
A6	Des6	560	Rouge	50	F4
A7	Des7	610	Jaune	60	F4

25 : SELECT V.* FROM Vente v , Article A WHERE V.numArt = A.numArt AND V.vente > 2 * A.prixAchat ;

C1 A2 M1 20.25 330 12-OCT-20 C2 A4 M1 100 300 04-FEB-18 C3 A2 M3 500 380.5 25-FEB-19 C1 A5 M1 750.5 210 14-DEC-21 C3 A4 M3 300 430.5 17-JUN-19 C1 A1 M2 20 220 22-MAR-18	NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C3 A2 M3 500 380.5 25-FEB-19 C1 A5 M1 750.5 210 14-DEC-21 C3 A4 M3 300 430.5 17-JUN-19	C1	A2	M1	20.25	330	12-0CT-20
C1 A5 M1 750.5 210 14-DEC-21 C3 A4 M3 300 430.5 17-JUN-19	C2	A4	M1	100	300	04-FEB-18
C3 A4 M3 300 430.5 17-JUN-19	С3	A2	МЗ	500	380.5	25-FEB-19
	C1	A5	M1	750.5	210	14-DEC-21
C1 A1 M2 20 220 22-MAR-18	С3	A4	МЗ	300	430.5	17-JUN-19
	C1	A1	M2	20	220	22-MAR-18

26 : SELECT A.des , M.locMag , V.qte , V.date FROM Article A , Magasin M , Vente V WHERE A.numArt = V.numArt AND M.numMag = V.numMag ;

DES	LOCMAG	QТЕ	DAT
Des2	Chamal	20.25	12-0CT-20
Des4	Chamal	100	04-FEB-18
Des2	Elmanzel	500	25-FEB-19
Des3	Ain Sbaa	120.2	15-JUN-21
Des1	Elmanzel	30	30-MAY-22
Des5	Chamal	750.5	14-DEC-21
Des1	Chamal	600.7	23-MAR-17

27 : SELECT locMag SUM(qte*prixVente) Montant_ventes FROM Vent GROUP BY locMag ;

LOCMAG	MONTANT_VENTES
Chamal	314427.5
Ain Sbaa	40929.1
Elmanzel	323922.5
Tamaris	44100

28 : SELECT dat ,COUNT(*) NombreVentes ,SUM(qte*prixVente) Montants_ventes FROM Vente GROUP BY dat ;

DAT	NOMBRE_VENTES	MONTANT_VENTES
15-JUN-21	1	23499.1
17-JUL-22	1	17100
23-MAR-17	1	120140
17-JUN-19	1	129150
04-FEB-18	1	30000
22-MAR-18	1	4400
25-FEB-19	1	190250
03-0CT-17	1	13030

29 : SELECT SUM(qte*prixVente) Montant_ventes FROM Vente WHERE numClt IN (SELECT numClt FROM Client WHERE villClt = 'Fes') ;



30 : SELECT numArt , SUM(qte) quantite_totale_vendue FROM Vente GROUP BY numArt ;

NUMART	QUANTITE_TOTALE_VENDUE
A4	400
А3	120.2
A6	200
A1	650.7
A5	850.5
A7	300
A2	520.25

31 : SELECT numArt , MIN(qte) quantite_minimale_vendue FROM Vente GROUP BY numArt ;

NUMART	QUANTITE_MINIMALE_VENDUE
A1	20
A2	20.25
А3	120.2
A4	100
A5	100
A6	200
А7	300

32 : SELECT MAX(qte) quantiteMaximal FROM Vente v , Article A WHERE v.numArt = A.numArt AND A.couleur = 'vert' ;

NUMART	QUANTITE_MAXIMALE_VENDUE
A1	600.7
A2	500

33 : SELECT V.* FROM Vente V , Client C WHERE V.numClt = C.numClt AND C.villClt = 'Fes'AND V.numArt IN (SELECT A.numArt FROM Article A , Fournisseur F WHERE A.numFour = F.numFour AND F.villeFour = 'casa');

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C1	A2	M1	20.25	330	12-0CT-20
C2	A4	M1	100	300	04-FEB-18
C1	А3	M2	120.2	195.5	15-JUN-21
C1	A5	M1	750.5	210	14-DEC-21

34 : SELECT C.* FROM Client C , Vente V WHERE C.numClt = V.numClt AND V.numArt IN (SELECT numArt FROM Article WHERE couleur = 'vert' OR couleur = 'bleu');

35 : SELECT V.* FROM Vente V , Article A WHERE A.numArt = V.numArt AND (A.poid BETWEEN 200 AND 500) AND A.couleur = 'vert' AND numFour IN (SELECT numFour FROM Fournisseur WHERE villeFour = 'Tanger' OR villeFour = 'Casa');

NUMCLT	NUMART	NUMMAG	QTE	PRIXVENTE	DAT
C1	A2	M1	20.25	330	12-0CT-20
СЗ	A2	мз	500	380.5	25-FEB-19
C2	A1	мз	30	150.75	30-MAY-22
C1	A1	М1	600.7	200	23-MAR-17
C1	A1	M2	20	220	22-MAR-18

 $36: SELECT \ dat \ DATE \ numMag \ Magasin \ , \ numArt \ Article \ ; AVG(qte) \ FROM \ Vente \ GROUP \ BY \ dat \ , \ numMag \ , \ numArt \ ;$

DAT	MAGASIN	ARTICLE	AVG(QTE)
23-MAR-17	M1	A1	600.7
03-0CT-17	M2	A5	100
04-FEB-18	M1	A4	100
22-MAR-18	M2	A1	20
25-FEB-19	МЗ	A2	500
17-JUN-19	МЗ	А4	300
12-0CT-20	M1	A2	20.25

37 : SELECT numArt , COUNT(*) NomberDesVentes FROM Vente GROUP BY numArt having COUNT(*) > 3 ;



38 : SELECT numMag , SUM(qte*prixVente) chiffreDaffaire FROM Vente GROUP BY numMag HAVING SUM(qte*prixVente) > 5000;

NUMMAG	CHIFFRE_AFFAIRES
мз	323922.5
M2	40929.1
M1	314427.5
M4	44100

39 : SELECT numArt , SUM(qte) FROM Vente WHERE numArt IN (SELECT A.numArt FROM Article A , Fournisseur F WHERE A.numFour = F.numFour AND F.villeFour = 'Tanger') HAVING qte > 200;



40 : SELECT numClt FROM Client C1 , Client C2 WHERE C1.ville = C2.ville AND C1.numClt != 'C2' ;



Avec une sous requete

SELECT nomClt FROM Client WHERE villeClt IN (SELECT villeClt FROM Client WHERE numClt ='C2')
AND !='C2';



41 : SELECT A.des FROM Article A JOIN Vente V ON A.numArt = V.numArt GROUP BY A.des HAVING COUNT(*)>3;



42 : SELECT des FROM Article WHERE numArt IN (SELECT numArt FROM Vente GROUP BY numArt HAVING COUNT(*)>(SELECT COUNT(*) Vente WHERE numArt ='A1'));



43 : SELECT M.locMag FROM Magasin M JOIN Vente V ON M.numMag=V.numMag GROUP BY M.locMag HAVING COUNT (*)>=3;



44 : SELECT M.numMag , M.locMag FROM Magasin M JOIN Vente V1 ON M.numMag=V1.numMag AND V1.numArt ='A1' JOIN Vente V2 ON M.numMag=V2.numMag AND V2.numArt ='A2';



45 : SELECT A.numArt, COUNT(*) AS 'nombre de vente', M.numMag FROM Magasin M JOIN Vente V ON M.numMag =V.numMag JOIN Article A ON V. numArt =A.numArt GROUP BY A.numArt M.numMag ORDER BY A.numArt ;

NUMART	Nombre de ventes	NUMMAG
A1	1	M1
A1	1	M2
A1	1	мз
A2	1	M1
A2	1	мз
АЗ	1	M2

46 : SELECT M.numMag, A.numArt , SUM (V.qte) AS 'quantité journalière' FROM Magasin M JOIN Vente V ON M.numMag = V.numMag JOIN Article A ON V.numArt=A.numArt GROUP BY M.numMag, A.numArt;

NUMMAG	NUMART	Quantité journalière
МЗ	A2	500
M2	А3	120.2
M4	А7	300
M2	A1	20
M2	A5	100
МЗ	A1	30

47 : SELECT f.numFour FROM Fournisseur F WHERE NOT EXISTS (SELECT * FROM Article A JOIN Vente V ON A.numArt = V.numArt WHERE A.numFour = F.numFour AND A.couleur = 'vert');



48 : SELECT V.numMag FROM Vente V GROUP BY V.numMag HAVING COUNT(DISTINCT V.numArt) =(SELECT COUNT(*) FROM Article);



49 : SELECT des, poids, couleur FROM Article WHERE poids >(SELECT AVG(poids) FROM Article WHERE couleur ='vert') ORDER BY DESC;

DES	POIDS	COULEUR	
Des7	600	Jaune	
Des6	550	Rouge	
Des5	500	Violet	
Des4	300	Bleu	
Des3	300	Bleu	

50 : SELECT A.des, A.poids; A.numFour FROM Article A JOIN Fournisseur F ON A.numFour = A.numFour WHERE LENGTH (F.numFour) = 12 AND A.poids = (SELECT MAX(A2.poids) FROM Article A2 WHERE A2.numFour = A.numFour) ORDER BY A.des DESC;



51 : SELECT M.locMag FROM Magasin M INNER JOIN Vente V ON V.numMag = M.numMag GROUP BY M.locMag HAVING COUNT(DISTINCT V.numArt) = (SELECT MAX(cnt) FROM (SELECT COUNT(DISTINCT V2.numArt) AS cnt FROM Vente V GROUP BY V2.numMag));



52 : SELECT DISTINCT V.numMag FROM Vente V WHERE V.numMag NOT IN (SELECT V2.numMag FROM Vente V2 JOIN Article A ON V2.numArt= A.numArt WHERE A.couleur = 'Bleu');



53 : SELECT des, Couleur FROM Article WHERE prixAchat > (SELECT MAX(prixAchat) FROM Article WHERE Couleur = 'Vert');



54 : SELECT V1.* FROM Vente V1, Vente V2 WHERE V1.numMag= 'M1' AND V2.numMag= 'M2' AND V1.prixVente * V1.qte = V2.prixVente * V2.qte;



55 : SELECT DISTINCT V1.numArt FROM Vente V1 WHERE V1.numMag= 'M1' AND NOT EXISTS (SELECT V2.numArt FROM Vente V2 WHERE V2.numMag= 'M3' AND V1.numArt = V2.numArt);



56 : SELECT C.nomClt FROM Client C WHERE NOT EXISTS (SELECT DISTINCT M.numMag FROM Magasin M MINUS SELECT DISTINCT V.numMag FROM Vente V WHERE V.numClt = C.numClt);



57 : SELECT DISTINCT des, couleur FROM Article a1 WHERE poids = (SELECT MAX(poids) FROM Article a2 WHERE a1.couleur = a2.couleur) order by des;



58 : SELECT COUNT(DISTINCT V.numClt) FROM Vente V WHERE NOT EXISTS (SELECT A.numArt FROM Article A WHERE A.Couleur = 'Vert' AND NOT EXISTS (SELECT * FROM Vente V1 WHERE V1.numArt = A.numArt AND V1.numClt = V.numClt);



59 : SELECT F1.nomFour, F2.nomFour, F1.villeFour FROM Fournisseur F1 JOIN Fournisseur F2 ON F1.villeFour = F2.villeFour AND F1.nomFour < F2.nomFour;



60 : SELECT A.des FROM Article A WHERE NOT EXISTS (SELECT * FROM Vente V WHERE V.numArt = A.numArt);



f