2016

TP de base de données

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TP sur la base de données CINEMA

--1--

```
select * from film order by titre;
```

--2--

```
select distinct ville from personne order by ville;
```

--3--

```
select titre, budget, 'Film à petit budget' as type from film where budget <= 1000000;
```

--4--

```
select * from personne where adr like '%Avenue%';
```

--5--

```
select * from personne where tel is null;
```

--6--

```
select distinct nom, pren  from film
left join personne on numpers = real
where ville like 'N%';
```

--7--

```
select titre, annee, nom from film
left join personne on numpers = real
where nom != 'Spielberg';
```

--8--

```
select nom, pren, titre, round(sal_real/longueur) from film
left join personne on numpers = real;

--9--
select titre, nom, pren, sal from film
left join distribution on distribution.numfilm = film.numfilm
left join acteur on distribution.numact = acteur.numact
left join personne on acteur.numpers = personne.numpers
where sal is not null order by titre, sal desc;

--10--
select nom, pren, sal/1.03, titre from acteur
left join distribution on acteur.numact = distribution.numact
left join personne on acteur.numpers = personne.numpers
left join film on film.numfilm = distribution.numfilm
where titre is not null;

--11--
select act.nom, act.pren from personne act
left join acteur on act.numpers = acteur.numpers
left join distribution on acteur.numact = distribution.numact
left join film on distribution.numfilm = film.numfilm
left join personne real on film.real= real.numpers
where real.nom = 'Spielberg'
and acteur."specialite" = (
select numgenre from genre
where libellegenre = 'Drame');
```

--12--

```
select distinct act.nom, act.pren from personne act
left join acteur on act.numpers = acteur.numpers
left join distribution on acteur.numact = distribution.numact
left join film on distribution.numfilm = film.numfilm
left join personne real on film.real= real.numpers
where act.numpers = real.numpers;
```

--13--

```
select cinema.nom, titre from cinema
left join salle on salle.numcine = cinema.numcine
left join programmation on salle.numcine = programmation.numcine and salle.numsalle =
programmation.numsalle
left join film on programmation.numfilm = film.numfilm
left join personne on film.real = personne.numpers
where comp = 'indep'
and cinema.ville = 'Bordeaux'
and taille > 30
and nbplaces > 100
and horaire = '22:00';
```

--14--

```
select libellegenre, titre from film
left join genre on genre = numgenre;
```

--15--

```
select nom from cinema
left join salle on cinema.numcine = salle.numcine
where salle.numcine is null;
```

--16--

```
select nom, salle.numsalle, titre, datedeb, datefin, horaire, prix from cinema
left join salle on salle.numcine = cinema.numcine
left join programmation on salle.numcine = programmation.numcine and salle.numsalle =
programmation.numsalle
left join film on programmation.numfilm = film.numfilm;
```

--17--

```
select sum(sal) from distribution
where numfilm = (
select numfilm from film
where titre = 'Jurassic Parc');
```

--18--

```
select libellegenre ,count(*) from film
left join genre on genre = numgenre
group by libellegenre;
```

--19--

```
select libellegenre, sum(budget) from genre
left join film on numgenre = genre
where annee between 1990 and 1999
group by libellegenre
having sum(budget) > 10000000;
```

--20--

```
select nom, ville from cinema, salle
where cinema.numcine = salle.numcine
```

```
group by nom;

--21--
select nom, pren from personne
where numpers = any(
select real from film)
and ville not in(
select ville from cinema);

--22--
select titre, annee, longueur from film
where longueur >= all(
select longueur from film);

--23--
select titre from film
left join programmation on film.numfilm = programmation.numfilm
left join cinema on programmation.numcine = cinema.numcine
minus
select titre from film
left join programmation on film.numfilm = programmation.numfilm
left join cinema on programmation.numcine = cinema.numcine
where cinema.nom = 'UGC';

--24--
select nom, sum(sal) from personne
left join acteur on personne.numpers = acteur.numpers
left join distribution on distribution.numact = acteur.numact
```

```
group by nom having sum(sal) > any(
select sum(sal_real) from personne
left join film on numpers = real
group by nom);

--25--
select nom, sum(sal) from personne
left join acteur on personne.numpers = acteur.numpers
left join distribution on distribution.numact = acteur.numact
group by nom having sum(sal) >= all(
select sum(sal_real) from film
group by real);

--26--
select distinct nom, pren from personne
left join film on numpers = real
left join distribution on distribution.numfilm = film.numfilm
where sal_real > distribution.sal;
```

TP sur la base de données TRAIN

```
create table ligne(
nuligne number(2),
rang number(2),
nomgare varchar2(20),
constraint pk_ligne primary key(nuligne,rang)
);
create table wagon(
```

```
nuwagon number(4) primary key,
typewagon varchar2(20),
poidsvide number(2),
capacite number(2),
etat varchar2(20),
nomgare varchar2(20)
);
create table train(
nutrain number(4),
nuwagon number(4),
constraint pk_train primary key(nutrain,nuwagon),
constraint fk_wagon foreign key(nuwagon) references wagon(nuwagon)
);
create table trafic(
nutrain number(4),
nuligne number(2),
nujour date,
constraint pk_trafic primary key(nutrain,nuligne,nujour)
);
create table reseau(
nomgareorigine varchar2(20),
nomgaredestination varchar2(20),
nuligne number(2),
nomgarearrivee varchar2(20),
constraint pk_reseau primary key(nomgareorigine ,nomgaredestination ,nuligne ,nomgarearrivee)
);
insert into ligne values (10,1,'nantes') ;
insert into ligne values (10,2,'angers') ;
```

```
insert into ligne values (10,3,'saumur') ;
insert into ligne values (10,4,'tours') ;
insert into ligne values (11,1,'nantes') ;
insert into ligne values (11,2,'tours') ;
insert into ligne values (13,1,'angers') ;
insert into ligne values (13,2,'paris') ;
insert into ligne values (13,3,'lyon') ;
insert into ligne values (13,4,'beziers') ;
insert into ligne values (15,1,'tours') ;
insert into ligne values (15,2,'bordeaux') ;
insert into ligne values (16,1,'orleans') ;
insert into ligne values (16,2,'tours') ;
insert into ligne values (16,3,'poitiers') ;
insert into ligne values (21,1,'bordeaux') ;
insert into ligne values (21,2,'toulouse') ;
insert into ligne values (30,1,'toulouse') ;
insert into ligne values (30,2,'beziers') ;
commit;
insert into wagon values (1004 , 'frigo' , 10 , 30 , 'libre', 'tours');
insert into wagon values (1104 , 'citerne' , 6 , 15 , 'charge', 'paris');
insert into wagon values (1105 , 'frigo' , 10 , 30 , 'libre', 'orleans');
insert into wagon values (1106 , 'frigo' , 10 , 30 , 'charge', 'tours');
insert into wagon values (2019 , 'plat' , 7 , 20 , 'libre', 'angers');
commit;
insert into train values (4002 , 1104) ;
insert into train values (4002 , 1105) ;
insert into train values (4002 , 1106) ;
insert into train values (4051 , 1004) ;
```

```
insert into train values (4051 , 2019) ;
commit;
insert into trafic values (4002 , 10 , TO_DATE('12/03/13' , 'DD/MM/YY')) ;
insert into trafic values (4002 , 10 , TO_DATE('14/03/13' , 'DD/MM/YY')) ;
insert into trafic values (4051 , 13 , TO_DATE('12/03/13' , 'DD/MM/YY')) ;
commit ;
insert into reseau values ('angers','beziers',10,'tours');
insert into reseau values ('bordeaux','beziers',21,'toulouse');
insert into reseau values ('saumur','tours',10,'tours');
insert into reseau values ('toulouse','beziers',30,'beziers');
insert into reseau values ('tours','beziers',15,'bordeaux');
insert into reseau values ('angers','beziers',13,'paris');
insert into reseau values ('paris','beziers',13,'lyon');
insert into reseau values ('lyon','beziers',13,'beziers');
commit;

--1--
select nuwagon from wagon where nomgare = 'tours' and typewagon = 'frigo' and capacite > 10;

--2--
select wagon.nuwagon, typewagon from wagon left join train on wagon.NUWAGON = train.NUWAGON
where nutrain = 4002;

--3--
select nuligne from ligne where nomgare = 'tours' and rang != 1;

--4--
select nutrain from trafic left join reseau on trafic.NULIGNE = reseau.NULIGNE where nujour =
'12/03/2013' and nomgareorigine = 'angers' and nomgaredestination = 'beziers';
```

--5--

```
select nuwagon from train left join trafic on train.nutrain = trafic.nutrain left join reseau on trafic.NULIGNE = reseau.NULIGNE where nujour = '12/03/2013' and nomgareorigine = 'angers' and nomgaredestination = 'beziers';
```

--6--

```
select nuligne from trafic group by nuligne having count(distinct nujour)=(select count(distinct nujour) from trafic);
```

--7--

```
select distinct nomgarearrivee from reseau where nuligne =10;
```

--8--

```
select nutrain, sum(poidsvide+capacite) as poids_en_charge from train left join wagon on wagon.NUWAGON = train.NUWAGON where nutrain = 4002 group by nutrain;
```

--9--

```
select distinct nomgare from reseau left join ligne on reseau.NULIGNE = ligne.NULIGNE where nomgareorigine = 'angers' and nomgaredestination = 'beziers';
```

--10--

```
select nutrain, count(*) from train group by nutrain;
```

--11--

```
select nutrain from train group by nutrain having count(*) >= 2;
```

--12--

```
create view train2 as select nutrain, wagon.nuwagon, typewagon, capacite from train left join wagon on wagon.NUWAGON = train.NUWAGON;
```

TP sur SQL: Langange de données

A- Manipulation de données

--1—

Insert into employe values (010, ‘Jean’, ‘comptable’, 15/08/2006, 25000, null, 30)

--2—

Update service set lieu = ‘Rennes’ where numservice = 30

--3—

Update employe set salaire =salaire + 100

--4—

delete * from employe where numservemploye = 30 and fonction = ‘Administratif’

B- Définition de données

--1--

create table employe

(mat number(3),

nom varchar2(50),

fonction varchar2(20),

dateembauche date,

salaire number(6),

commission number(6),

numservemploye number(2),

primary key mat);

```
create table service
(numservice number(2),
nomservice varchar2(20),
lieu varchar2(20),
primary key numservice);

create table produit
(refproduit varchar2(5),
designation varchar2(20),
primary key refproduit);


create table commander
(mat number(3),
refproduit varchar2(5),
quantite number(2),
primary key (mat,refproduit));

--2--
alter table service
modify designation varchar2(50);

--3--
alter table employe
add adresse varchar2(50);

--4--
alter table service
```

add budget number(5,2);

--5--

alter table employe

drop dateembauche

C- Contrôle de l’accés