**Correction Examen Base de Données Avancées 2021**

conn sys/system as sysdba

create user exam identified by exam;

grant connect, resource to exam;

grant read, write on directory dir1 to exam;

grant execute on UTL\_FILE to exam;

=========================================================================

connect exam/exam

create table article

(code\_art number primary key,

deseig varchar2(30),

qte\_stk number,

prix number(6,3)

);

create table client

(code\_clt number primary key,

deseig varchar2(30),

adr varchar2(30)

);

create table commande

(num\_cde number primary key,

date\_cde date,

code\_clt number references client(code\_clt)

);

create table det\_cde

(num\_cde number references commande(num\_cde),

code\_art number references article(code\_art),

qte\_cde number,

constraint pk\_det\_cde primary key (num\_cde, code\_art)

);

create table livraison

(num\_liv number primary key,

date\_liv date,

num\_cde number references commande(num\_cde)

);

create table det\_liv

(num\_liv number references livraison(num\_liv),

code\_art number references article(code\_art),

qte\_liv number,

constraint pk\_det\_liv primary key (num\_liv, code\_art)

);

==============================================

delete from det\_liv;

delete from livraison;

delete from det\_cde;

delete from commande;

delete from client;

delete from article;

insert into article values(1, 'A1', 100, 10);

insert into article values(2, 'A2', 100, 10);

insert into article values(3, 'A3', 100, 10);

insert into article values(4, 'A4', 100, 10);

insert into article values(5, 'A5', 100, 10);

insert into client values(1, 'C1', 'ADR1');

insert into client values(2, 'C2', 'ADR2');

insert into client values(3, 'C3', 'ADR3');

insert into client values(4, 'C4', 'ADR4');

insert into client values(5, 'C5', 'ADR5');

insert into commande values(1, '01/10/2020', 1);

insert into det\_cde values(1, 1, 1);

insert into det\_cde values(1, 2, 1);

insert into livraison values(1, '01/10/2020', 1);

insert into det\_liv values(1, 1, 1);

insert into det\_liv values(1, 2, 1);

insert into commande values(2, '02/10/2020', 1);

insert into det\_cde values(2, 1, 2);

insert into det\_cde values(2, 2, 2);

insert into livraison values(2, '02/10/2020', 2);

insert into det\_liv values(2, 1, 2);

insert into det\_liv values(2, 2, 2);

insert into commande values(3, '03/10/2020', 1);

insert into det\_cde values(3, 3, 3);

insert into det\_cde values(3, 4, 3);

insert into livraison values(3, '03/10/2020', 3);

insert into det\_liv values(3, 3, 3);

insert into det\_liv values(3, 4, 3);

insert into commande values(4, '01/10/2020', 2);

insert into det\_cde values(4, 1, 5);

insert into det\_cde values(4, 5, 5);

insert into livraison values(4, '01/10/2020', 4);

insert into det\_liv values(4, 1, 5);

insert into det\_liv values(4, 5, 5);

insert into commande values(5, '02/10/2020', 2);

insert into det\_cde values(5, 3, 2);

insert into det\_cde values(5, 4, 1);

insert into livraison values(5, '02/10/2020', 5);

insert into det\_liv values(5, 3, 2);

insert into det\_liv values(5, 4, 1);

insert into commande values(6, '03/10/2020', 3);

insert into det\_cde values(6, 1, 1);

insert into det\_cde values(6, 2, 1);

insert into livraison values(6, '03/10/2020', 6);

insert into det\_liv values(6, 1, 1);

insert into det\_liv values(6, 2, 1);

insert into commande values(7, '01/10/2020', 3);

insert into det\_cde values(7, 4, 3);

insert into det\_cde values(7, 2, 4);

insert into livraison values(7, '01/10/2020', 7);

insert into det\_liv values(7, 4, 3);

insert into det\_liv values(7, 2, 4);

insert into commande values(8, '02/10/2020', 4);

insert into det\_cde values(8, 3, 2);

insert into det\_cde values(8, 5, 3);

insert into livraison values(8, '02/10/2020', 8);

insert into det\_liv values(8, 3, 2);

insert into det\_liv values(8, 5, 3);

insert into commande values(9, '03/10/2020', 5);

insert into det\_cde values(9, 1, 7);

insert into det\_cde values(9, 2, 6);

insert into livraison values(9, '03/10/2020', 9);

insert into det\_liv values(9, 1, 7);

insert into det\_liv values(9, 2, 6);

================================

create or replace function f\_ca\_c\_a (p\_code\_clt client.code\_clt%type,

p\_annee number)

return number

is

ca number(6,3);

begin

select nvl(sum(prix \* qte\_liv),0) into ca

from commande cde, livraison liv, det\_liv d\_liv, article art

where cde.num\_cde = liv.num\_cde

and liv.num\_liv = d\_liv.num\_liv

and d\_liv.code\_art = art.code\_art

and code\_clt = p\_code\_clt

and to\_char(date\_cde, 'YYYY') = p\_annee;

return ca;

end;

/

select f\_ca\_c\_a(1, 2020) from dual;

====

begin

dbms\_output.put\_line(f\_ca\_c\_a(1, 2020));

end;

/

=================================

create or replace procedure p\_ca\_n\_c (p\_n number,

p\_annee number)

is

cursor c is select code\_clt, f\_ca\_c\_a(code\_clt, p\_annee) as ca

from client

order by ca desc;

begin

for vc in c loop

dbms\_output.put\_line(vc.code\_clt ||' '||vc.ca);

exit when c%rowcount = p\_n;

end loop;

end;

/

execute p\_ca\_n\_c(5, 2020)

================================

create or replace procedure p\_cd\_date2 (p\_date date)

is

--declare

nb number;

cursor c\_cde is select num\_cde, code\_clt

from commande

where date\_cde = p\_date;

cursor c\_dtcde(p\_num\_cde commande.num\_cde%type)

is select deseig, prix, qte\_cde

from article art, det\_cde d\_cde

where art.code\_art = d\_cde.code\_art

and num\_cde = p\_num\_cde;

cursor c\_dtliv(p\_num\_cde commande.num\_cde%type)

is select liv.num\_liv, deseig, qte\_liv

from article art, det\_liv dt\_liv, livraison liv

where art.code\_art = dt\_liv.code\_art

and dt\_liv.num\_liv = liv.num\_liv

and num\_cde = p\_num\_cde;

begin

select count(\*) into nb from commande

where date\_cde = p\_date;

if nb = 0 then

dbms\_output.put\_line('Pas de commande le '||p\_date);

else

for vc\_cde in c\_cde loop

dbms\_output.PUT\_LINE(vc\_cde.num\_cde ||' '|| vc\_cde.code\_clt);

for vc\_dtcde in c\_dtcde(vc\_cde.num\_cde) loop

dbms\_output.PUT\_LINE(vc\_dtcde.deseig ||' '|| vc\_dtcde.prix ||' '|| vc\_dtcde.qte\_cde);

end loop;

for vc\_dtcde in c\_dtliv(vc\_cde.num\_cde) loop

dbms\_output.PUT\_LINE(vc\_dtcde.num\_liv ||' '|| vc\_dtcde.deseig ||' '|| vc\_dtcde.qte\_liv);

end loop;

end loop;

end if;

end;

/

execute p\_cd\_date ('12/02/2021')

execute p\_cd\_date ('01/10/2020')

===============================================

create or replace trigger gest\_dt\_liv

before insert

on +

for each row

declare

v\_num\_cde livraison.num\_cde%type;

v\_nb\_art number;

v\_qte\_cde number;

begin

select num\_cde into v\_num\_cde

from livraison

where num\_liv = :new.num\_liv;

select count(\*) into v\_nb\_art

from det\_cde

where num\_cde = v\_num\_cde

and code\_art = :new.code\_art;

if v\_nb\_art = 0

then raise\_application\_error(-20101,'Erreur de produit');

else

select qte\_cde into v\_qte\_cde

from det\_cde

where num\_cde = v\_num\_cde

and code\_art = :new.code\_art;

if :new.qte\_liv > v\_qte\_cde

then raise\_application\_error(-20102,'Erreur de quantite');

end if;

end if;

end;

/

insert into det\_liv values(9, 1, 8);

insert into det\_liv values(9, 4, 6);