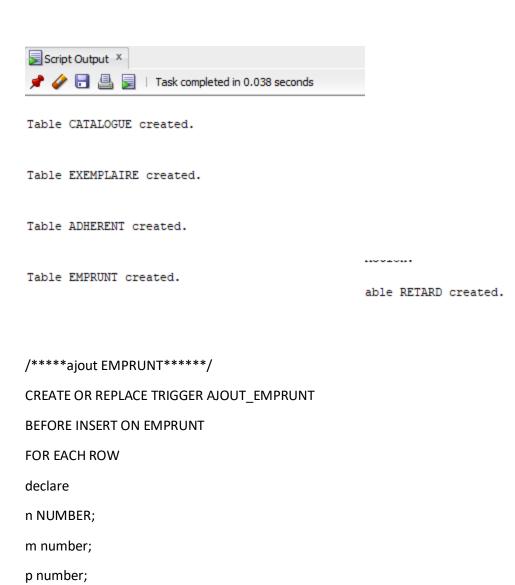
```
/* creation des tables */
CREATE TABLE catalogue(
codeg number(10) constraint pk_catalogue primary key,
titre varchar2(200) NOT NULL,
NomAut varchar2(80) NOT NULL,
prenomAut varchar2(80) NOT NULL,
anEd number (4),
editeur varchar(50) NOT NULL,
domaine varchar(50),
Prix Number(8,3));
create table exemplaire(
codexp VARCHAR(10),
codeg number(10) NOT NULL,
etat char(8) NOT NULL,
disp char(3) NOT NULL,
constraint pk_exemplaire primary key(codexp),
constraint fk_exemplaire_catalogue foreign key(codeg) references catalogue(codeg),
constraint ck_exemplaire_etat check (etat IN ('bon', 'moyen', 'mediocre')),
constraint ck_exemplaire_disp check (disp IN ('oui','non')));
create table Adherent(
noAdh number(6) constraint pk_membres primary key,
nom varchar2(80) NOT NULL,
prenom varchar2(80) NOT NULL,
adresse varchar2(200) NOT NULL,
ncin NUMBER (8) UNIQUE,
```

```
tel NUMBER(10),
dateAdh DATE NOT NULL,
email VARchar(80) NOT NULL);
CREATE TABLE Emprunt(
codexp varchar(10) NOT NULL,
dateEmp DATE NOT NULL,
noAdh number(6) NOT NULL,
dateRprevue DATE NOT NULL,
datereffective DATE,
constraint fk_emprunts_codexp foreign key (codexp)references exemplaire(codexp),
constraint fk_emprunts_adh foreign key (noAdh) references adherent (noadh),
constraint pk_emprunts primary key (codexp, dateemp));
/****table retard***/
CREATE TABLE retard(
          noadh number(6) NOT NULL,
          codeg number(10) NOT NULL,
          dateEmp DATE NOT NULL,
          datereffective DATE,
          penalite number NOT NULL,
          encours char(3) NOT NULL,
          constraint fk_retard_codeg foreign key (codeg) references catalogue(codeg),
          constraint fk_retard_adh foreign key (noAdh) references adherent(noadh),
          constraint pk_retard primary key(noadh, codeg, dateemp)
          );
```



begin

SELECT count(codexp) into n from emprunt where (noAdh=:new.noAdh and dateReffective is null); select count(noAdh) into m from emprunt where :new.codexp=codexp and dateReffective is null; select count(noAdh) into p from retard where :new.noAdh=noAdh and upper(encours) like 'YES'; if n=5 then RAISE_APPLICATION_ERROR(-20100,'insertion impossible l''adherant a deja 5 empruntS');

else if m>0 then RAISE_APPLICATION_ERROR(-20100, 'exemplaire déja emprunté pas rendu');

else if (:new.dateReffective>sysdate) then RAISE_APPLICATION_ERROR(-20100,'La valeur de la date de retour effective ne doit

```
pas être antérieure à la date système.');
else if p>0 then RAISE_APPLICATION_ERROR(-20100,'vous avez une penalite de retard encours');
else if (TO_CHAR(SYSDATE, 'DD')=29 or TO_CHAR(SYSDATE, 'DD')=30) then
RAISE_APPLICATION_ERROR(-20100, le jour de retour prévue doit être toujours diffèrent de 29 et de
30');
else
  INSERT INTO EMPRUNT
VALUES(:new.codexp,SYSDATE,:new.noadh,:new.daterprevue,:new.datereffective);
END IF;
END IF;
END IF;
END IF;
END IF;
END;
 Script Output X
                 Task completed in 0.546 seconds
Trigger AJOUT EMPRUNT compiled
/*************Update emprunt******************/
create or replace TRIGGER UPDATE_EMPRUNT
BEFORE UPDATE ON EMPRUNT
FOR EACH ROW
BEGIN
IF(:NEW.datereffective>:OLD.dateRprevue )THEN
RAISE_APPLICATION_ERROR(-20104, 'mise a jour refusé');
```

```
ELSE
```

IF(:NEW.codexp!=:OLD.codexp OR :NEW.dateEmp!=:OLD.dateEmp OR :NEW.noAdh!=:OLD.noAdh OR :NEW.dateRprevue!=:OLD.dateRprevue) THEN

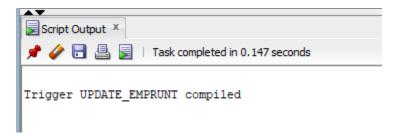
RAISE_APPLICATION_ERROR(-20105, 'mise a jour refusé');

ELSE UPDATE EMPRUNT set datereffective=:NEW.datereffective;

END IF;

END IF;

END;



/***** supprimer emprint *******/

CREATE OR REPLACE TRIGGER supp_emp BEFORE

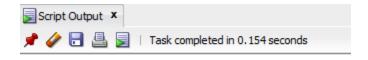
DELETE ON EMPRUNT

FOR EACH ROW

BEGIN

RAISE_APPLICATION_ERROR(-20200, 'Suppression impossible.');

END;



Trigger SUPP_EMP compiled

```
/****** chercher emprunt *******/
SET SERVEROUTPUT ON
CREATE OR REPLACE PROCEDURE CHERCHEREMPRUNTCODEG
(CODECATALOGUE IN NUMBER) AS
cursor listEmprunt is
select e.codexp, e.dateEmp,e.noAdh,e.dateRprevue,e.dateReffective from emprunt e, exemplaire ex
where e.codexp=ex.codexp
and ex.codeg=codecatalogue;
vList listEmprunt%ROWTYPE;
 begin
open listEmprunt;
loop
fetch listEmprunt into vList;
 DBMS_OUTPUT.PUT_LINE('Code exemplaire :'||vList.codexp||'Date emprunt :'||
vList.dateEmp||'Numero adherent :'|| vList.noAdh||'Date retour prevue :'|| vList.dateRprevue||'Date
retour prevue: '| | vList.dateReffective);
end loop;
close listEmprunt;
END CHERCHEREMPRUNTCODEG;
Script Output X
📌 🧽 🔡 🚇 📕 | Task completed in 0.783 seconds
```

Procedure CHERCHEREMPRUNTCODEG compiled

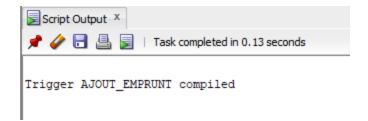
cursor listEmprunt is
select CODEXP ,DATEEMP ,NOADH ,DATERPREVUE ,DATEREFFECTIVE from emprunt
where noAdh=num;
vList listEmprunt%ROWTYPE;
begin
open listEmprunt;
Іоор
fetch listEmprunt into vList;
DBMS_OUTPUT.PUT_LINE('Code exemplaire :' vList.codexp 'Date emprunt :' vList.dateEmp 'Numero adherent :' vList.noAdh 'Date retour prevue :' vList.dateRprevue 'Date retour prevue :' vList.dateReffective);
end loop;
close listEmprunt;
END CHERCHEREMPRUNTNOADHERENT;
Script Output X
📌 🧽 🖥 🚇 🔋 Task completed in 0.193 seconds
Procedure CHERCHEREMPRUNTNOADHERENT compiled
/****** ajout emprunt *******/
CREATE OR REPLACE TRIGGER AJOUT_EMPRUNT

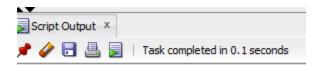
BEFORE INSERT ON EMPRUNT

FOR EACH ROW

declare

```
n NUMBER;
m number;
p number;
begin
SELECT count(codexp) into n from emprunt where (noAdh=:new.noAdh and dateReffective is null);
select count(noAdh) into m from emprunt where :new.codexp=codexp and dateReffective is null;
select count(noAdh) into p from retard where :new.noAdh=noAdh and upper(encours) like 'YES';
if n=5 then RAISE_APPLICATION_ERROR(-20100, insertion impossible I"adherant a deja 5 emprunts");
else if m>0 then RAISE_APPLICATION_ERROR(-20100, 'exemplaire déja emprunté pas rendu');
else if (:new.dateReffective>sysdate ) then RAISE_APPLICATION_ERROR(-20100, La valeur de la date de
retour effective ne doit
pas être antérieure à la date système.');
else if p>0 then RAISE_APPLICATION_ERROR(-20100, vous avez une penalite de retard encours');
else if (TO_CHAR(SYSDATE, 'DD')=29 or TO_CHAR(SYSDATE, 'DD')=30) then
RAISE APPLICATION ERROR(-20100, le jour de retour prévue doit être toujours diffèrent de 29 et de
30');
else
  INSERT INTO EMPRUNT
VALUES(:new.codexp,SYSDATE,:new.noadh,:new.daterprevue,:new.datereffective);
END IF;
END IF;
END IF;
END IF;
END IF;
END;
```





END CHERCHER_ADHERENT_CIN;

Procedure CHERCHER_ADHERENT_CIN compiled

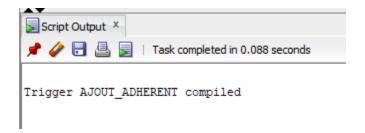
```
/****** CHERCHER EMPRUNT ******/
create or replace PROCEDURE CHERCHEREMPRUNTCODEG
(CODECATALOGUE IN NUMBER) AS
cursor listEmprunt is
select e.codexp, e.dateEmp,e.noAdh,e.dateRprevue,e.dateReffective from emprunt e, exemplaire ex
where e.codexp=ex.codexp
and ex.codeg=codecatalogue;
vList listEmprunt%ROWTYPE;
 begin
open listEmprunt;
loop
fetch listEmprunt into vList;
 DBMS_OUTPUT.PUT_LINE('Code exemplaire :'||vList.codexp||'Date emprunt :'||
vList.dateEmp||'Numero adherent :'|| vList.noAdh||'Date retour prevue :'|| vList.dateRprevue||'Date
retour prevue :'|| vList.dateReffective);
end loop;
close listEmprunt;
END CHERCHEREMPRUNTCODEG;
Script Output X
 📌 🧽 뒴 🖺 舅 | Task completed in 0.051 seconds
```

Procedure CHERCHEREMPRUNTCODEG compiled

create or replace PROCEDURE CHERCHEREMPRUNTNOADHERENT (num IN NUMBER) AS

cursor listEmprunt is select CODEXP ,DATEEMP ,NOADH ,DATERPREVUE ,DATEREFFECTIVE from emprunt where noAdh=num;

```
vList listEmprunt%ROWTYPE;
begin
open listEmprunt;
loop
fetch listEmprunt into vList;
 DBMS_OUTPUT.PUT_LINE('Code exemplaire:'||vList.codexp||'Date emprunt:'||
vList.dateEmp||'Numero adherent :'|| vList.noAdh||'Date retour prevue :'|| vList.dateRprevue||'Date
retour prevue :'|| vList.dateReffective);
end loop;
close listEmprunt;
END CHERCHEREMPRUNTNOADHERENT;
 Script Output X
 📌 🧼 🔡 💂 📘 | Task completed in 0.045 seconds
Procedure CHERCHEREMPRUNTNOADHERENT compiled
/****** AJOUT ADHERENT ******/
create or replace TRIGGER AJOUT_ADHERENT
BEFORE INSERT ON ADHERENT
FOR EACH ROW
DECLARE
nbr number;
BEGIN
SELECT COUNT (noAdh)into nbr FROM adherent WHERE ncin =: NEW.ncin;
if (nbr >0) then
RAISE_APPLICATION_ERROR(-20101, 'il est deja adherent');
END IF;
```



/****** SUPPRIMER ADHERENT *******/

create or replace TRIGGER SUPP_ADHERENT

BEFORE DELETE ON ADHERENT

FOR EACH ROW

DECLARE

nbremprunt number;

BEGIN

SELECT COUNT(Codexp) INTO nbremprunt FROM emprunt WHERE noadh =: NEW.noadh;

IF(nbremprunt >0)THEN

RAISE_APPLICATION_ERROR(-20102, 'suppression impossible car I"adherent a des emprunts');

END IF;

END;



rigger SUPP_ADHERENT compiled

```
/***** UPDATE ADHERENT ******/
create or replace TRIGGER UPDATE_ADHERENT
BEFORE UPDATE ON ADHERENT
FOR EACH ROW
BEGIN
IF(:NEW.ADRESSE!=:OLD.ADRESSE OR:NEW.TEL!=:OLD.TEL OR:NEW.EMAIL!=:OLD.EMAIL) THEN
RAISE_APPLICATION_ERROR(-20105, 'mise a jouçr refusé');
END IF;
END;
Script Output X
📌 🧼 🔡 볼 🔋 | Task completed in 0.106 seconds
Trigger UPDATE_ADHERENT compiled
```

```
/**************************/
create or replace PROCEDURE CALCULPENALITE

(
    DPREVUE IN DATE
, DEFFECTIVE IN DATE
) AS
nbr number;
d1 DATE;
BEGIN
select r.dateemp into d1
from retard r
where r.datereffective=DEFFECTIVE;
```

```
nbr:=to_char(DEFFECTIVE,'dd')-to_char(DPREVUE,'dd');

if(nbr>30) then

update retard set penalite=nbr where dateemp=d1;

DBMS_OUTPUT.PUT_LINE('update de penalite faite 1 !!');

else if(nbr<90 and nbr>30) then

update retard set penalite=nbr*2 where dateemp=d1;

DBMS_OUTPUT.PUT_LINE('update de penalite faite 2 !!');

else

DBMS_OUTPUT.PUT_LINE('tu dois payer ouvrage !!');

end if;

end if;

END CALCULPENALITE;
```

Procedure CALCULPENALITE compiled

📌 🤌 뒴 🖺 闄 | Task completed in 0.095 seconds

/*** vue **/

create or replace view VStatistique2018(codeg,titre,nbrexp,nbrexpNonDisp,nbremprunt,nbreretard) as select c.codeg,titre,

(select count(*) from exemplaire ex where ex.codeg=c.codeg) as nbrexp,

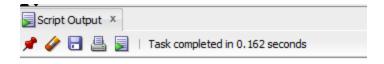
(select count(*) from exemplaire ex where ex.codeg=c.codeg and etat='mediocre')as nbrexpNonDisp,

(select count(*) from emprunt em, exemplaire ex where ex.codeg=c.codeg and ex.codexp=em.codexp)as nbrem,

(select count(*) from retard r where r.codeg=c.codeg)as nbreretard

from catalogue c

group by(c.codeg,titre)



View VSTATISTIQUE2018 created.

create or replace PACKAGE GESTIONEMPRUNT AS

PROCEDURE CHERCHEREMPRUNTCODEG (CODECATALOGUE IN NUMBER);
PROCEDURE CHERCHEREMPRUNTNOADHHERENT (NOADHERANT NUMBER);
PROCEDURE CHERCHER_ADHERENT_CIN (CIN IN NUMBER);
PROCEDURE CALCULPENALITE (DATEPREVUE DATE, DATEEFFECTIVE DATE);
END GESTIONEMPRUNTAS;

