

TD 5

Les vues – Les triggers

Base de données
Semestre 3

1 Écriture de vues pour l'écriture de requetes complexes

```
1 CREATE OR REPLACE VIEW vMoyParPlat (idP, moy, nbResto)
2   AS SELECT idP,AVG(prix),COUNT(idR) FROM propP GROUP BY idP;
3
4 CREATE OR REPLACE VIEW vNbRestoSupMoy (idP, nbRestoSupMoy)
5   AS SELECT idP, COUNT(*) FROM propP WHERE prixP >
6     (select moy FROM vMoyParPlat WHERE idP = propP.idP)
7   GROUP BY idP;
8
9 SELECT vMoyParPlat.idP, nbRestoSupMoy, vnbrestosupmoy.
10      nbRestoSupMoy
11 FROM vMoyParPlat v1, vnbrestosupmoy v2
12 WHERE v1.idP = v2.idP;
```

2 Utilisation de triggers pour la génération automatique des valeurs de colonnes “dérivées”

```
1 CREATE OR REPLACE TRIGGER T_A_DIU_PROPP
2   after DELETE OR INSERT OR UPDATE of idP on propP
3   for each row
4   begin
5     if deleting then
6       UPDATE plat SET nbResto = nbResto-1 WHERE idP = :old.idP;
7       UPDATE resto SET nbplat = nbPlat-1 WHERE idR = :old.idR;
8     else if inserting then
9       UPDATE plat SET nbResto = nbResto+1 WHERE idP = :old.idP;
10      UPDATE resto SET nbplat = nbPlat+1 WHERE idR = :old.idR;
11    else
12      UPDATE plat SET nbResto = nbResto-1 WHERE idP = :old.idP;
13      UPDATE plat SET nbResto = nbResto+1 WHERE idP = :new.idP;
14    end if;
15  end
```

```
1 CREATE OR REPLACE TRIGGER T_A_DIU_PROPP
2 after DELETE OR INSERT OR UPDATE of idP on propP
3 for each row
4 begin
5     if deleting then
6         UPDATE plat SET nbResto = nbResto-1 WHERE idP = :old.idP;
7         UPDATE resto SET nbplat = nbPlat-1 WHERE idR = :old.idR;
8         UPDATE plat SET
9             prixMoy = (prixMoy*(nbResto+1)-old.prixP)/nbResto
10            WHERE idP = :old.idP
11     else if inserting then
12         UPDATE plat SET nbResto = nbResto+1 WHERE idP = :old.idP;
13         UPDATE resto SET nbplat = nbPlat+1 WHERE idR = :old.idR;
14         UPDATE plat SET
15             prixMoy = (prixMoy*nbResto-1)+:newpriP)/nbResto
16     else
17         if updating(idP) then
18             UPDATE plat SET nbResto = nbResto-1 WHERE idP=:old.idP;
19             UPDATE plat SET nbResto = nbResto+1 WHERE idP=:new.idP;
20             UPDATE plat SET
21                 prixMoy = (prixMoy*(nbResto+1)-:old.prixP)/nbResto
22                 WHERE idP=:old.idp;
23             UPDATE plat SET
24                 prixMoy = (prixMoy*(nbResto-1)-:old.prixP)/nbResto
25                 WHERE idP=:new.idp;
26         else -- cas updating(prixP)
27             UPDATE plat SET
28                 prixMoy = prixMoy+(:new.prixPold-old.)/nbResto
29                 WHERE idP=new.idP;
30         end if;
31     end if;
32 end
```