I N S T I T U T
S U P E R I E U R
INFORMATIQUE
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ISI

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2ème année CS - GLSI
Ingénierie des Bases de données – Activité 6.1
R. ZAAFRANI, 24/11/2021

UVT
جامعة تونس الإفتراضية
UNIVERSITÉ VIRTUELLE DE TUNIS

Correction de l'activité 6.1

Exercice 1 :

CREATE OR REPLACE FUNCTION nbParts() RETURNS INTEGER AS $$
DECLARE
      n INTEGER;
BEGIN
      SELECT COUNT(*) INTO n FROM parts;
      RETURN n;
END
$$ LANGUAGE plpgsql;


```
Ecole/postgres@PostgreSQL 12
Query Editor   Query History
1   SELECT nbParts();

Data Output   Explain   Messages   Notifications
    nbparts
    integer
1        9
```

CREATE OR REPLACE FUNCTION nbParts() RETURNS INTEGER AS $$
DECLARE
      n INTEGER;
BEGIN
      SELECT COUNT(*) INTO n FROM parts;
      IF n > 6 THEN
            RAISE EXCEPTION 'Trop de pièces (%) !', n;
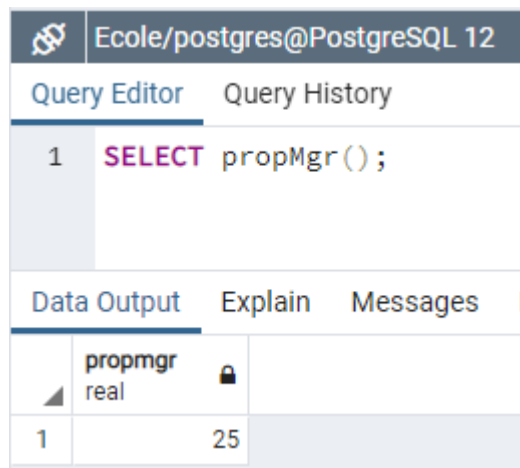   END IF;
      RETURN n;
END
$$ LANGUAGE plpgsql;


```
Ecole/postgres@PostgreSQL 12
Query Editor   Query History
1   SELECT nbParts();

Data Output   Explain   Messages   Notifications
ERROR:  ERREUR:  Trop de piŠces (9) !
CONTEXT:  fonction PL/pgSQL nbparts(), ligne 7 à RAISE

SQL state: P0001
```
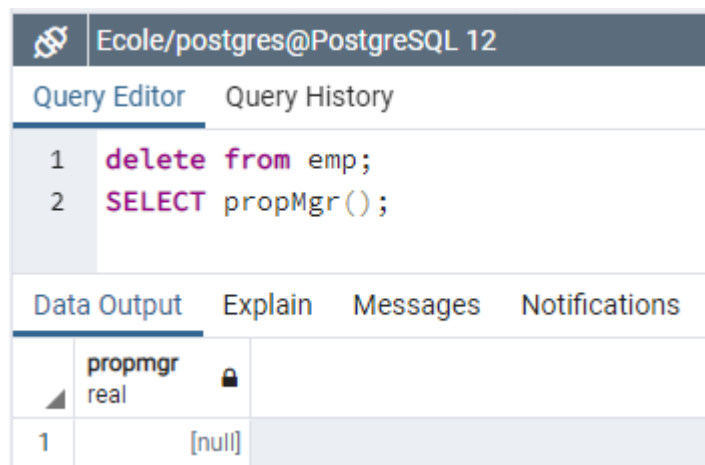
Exercice 2 :

CREATE OR REPLACE FUNCTION propMgr() RETURNS REAL AS $$
DECLARE
      nTot INTEGER; -- Nombre total d'employés
      nMan INTEGER; -- Nombre de managers
BEGIN
      SELECT COUNT(*) INTO nTot FROM emp;
      SELECT COUNT(*) INTO nMan FROM emp WHERE job = 'MANAGER';
      RETURN 100 * nMan / nTot ::REAL;
END
$$ LANGUAGE plpgsql;

Ecole/postgres@PostgreSQL 12		
Query Editor	Query History	

```
1   SELECT propMgr();
```

Data Output	Explain	Messages	

	propmgr 🔒 real	
1	25	

CREATE OR REPLACE FUNCTION propMgr() RETURNS REAL AS $$
DECLARE
      nTot INTEGER; -- Nombre total d'employés
      nMan INTEGER; -- Nombre de managers
BEGIN
      SELECT COUNT(*) INTO nTot FROM emp;
      SELECT COUNT(*) INTO nMan FROM emp WHERE job = 'MANAGER';
      RETURN 100 * nMan / nTot ::REAL;
EXCEPTION
      WHEN division_by_zero THEN RETURN NULL;
END
$$ LANGUAGE plpgsql;

Ecole/postgres@PostgreSQL 12		
Query Editor	Query History	

```
1   delete from emp;
2   SELECT propMgr();
```

Data Output	Explain	Messages	Notifications

	propmgr 🔒 real	
1	[null]	