





# Conception Avancée de Bases de Données

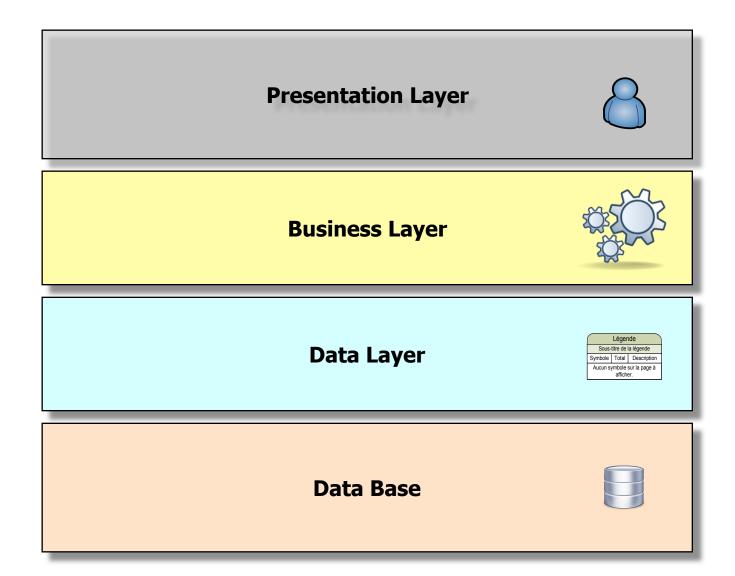
Explain Plan





## **Layered Architecture**

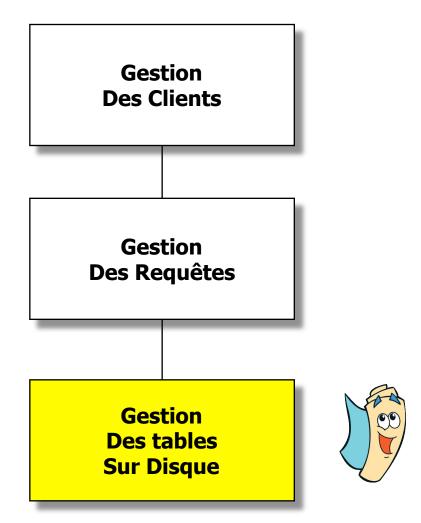


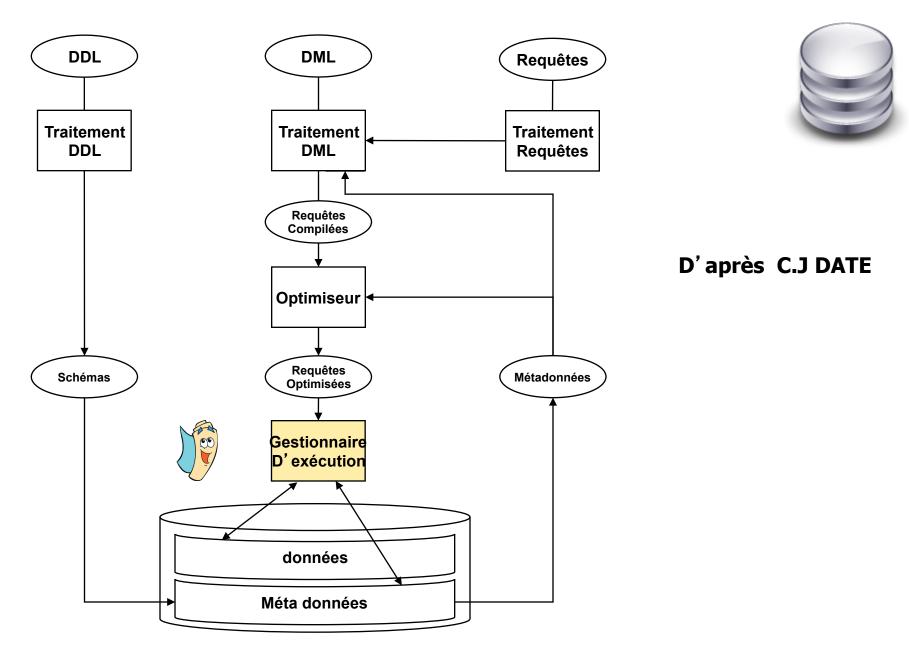




#### Big Picture







DDL : langage de définition des données; DML : langage de manipulation des données

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# Postgresql documentation



- http://www.postgresql.org/docs/9.0/static/sqlexplain.html
- EXPLAIN displays the execution plan that the PostgreSQL planner generates for the supplied statement.
- The execution plan shows how the table(s) referenced by the statement will be scanned — by plain sequential scan, index scan, etc. — and if multiple tables are referenced, what join algorithms will be used to bring together the required rows from each input table.

## One node query plan





```
● ● ● ● emmanuelfuchs — psql — 65×7

cavbd=> explain SELECT * FROM r;

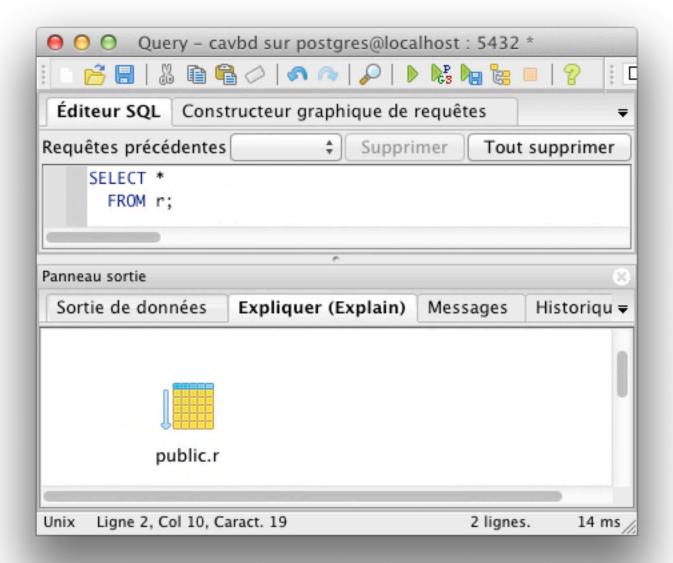
QUERY PLAN

Seq Scan on r (cost=0.00..14425.00 rows=1000000 width=4)
(1 row)

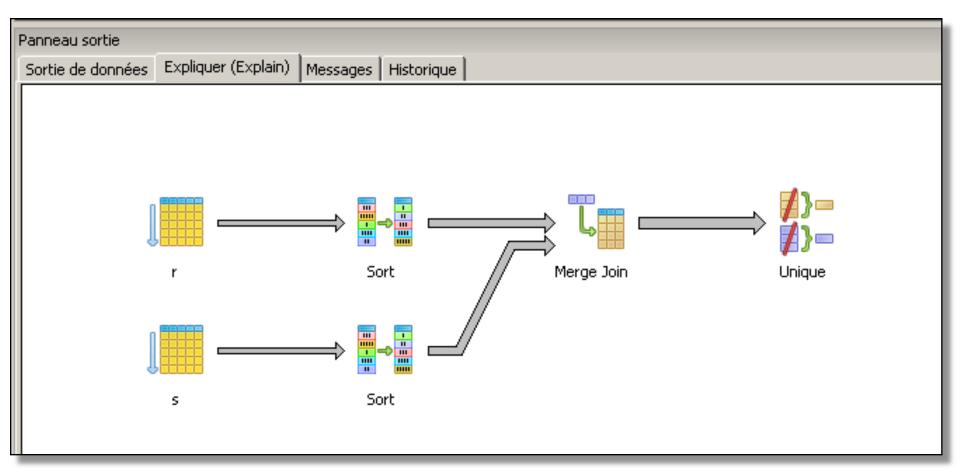
cavbd=> ■
```



# On node PG Admin III graphical query plan

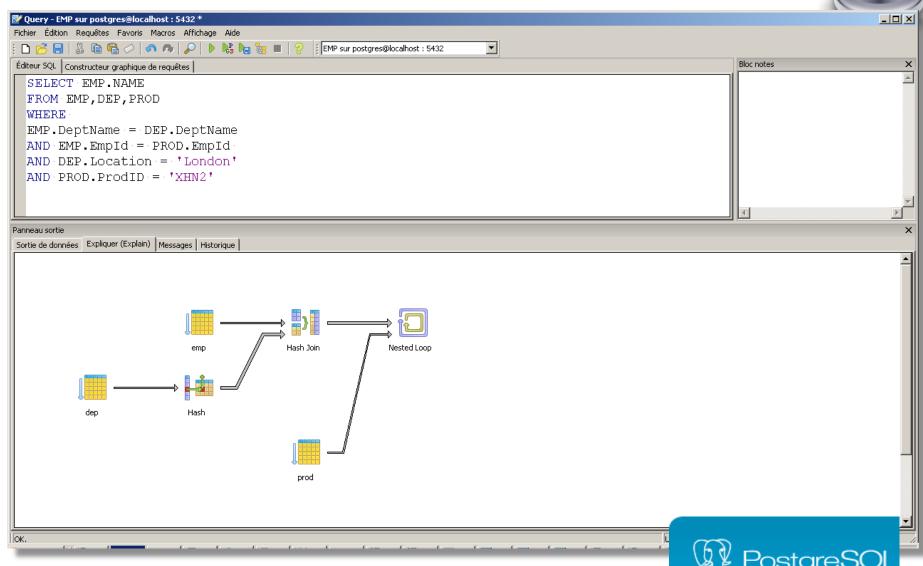




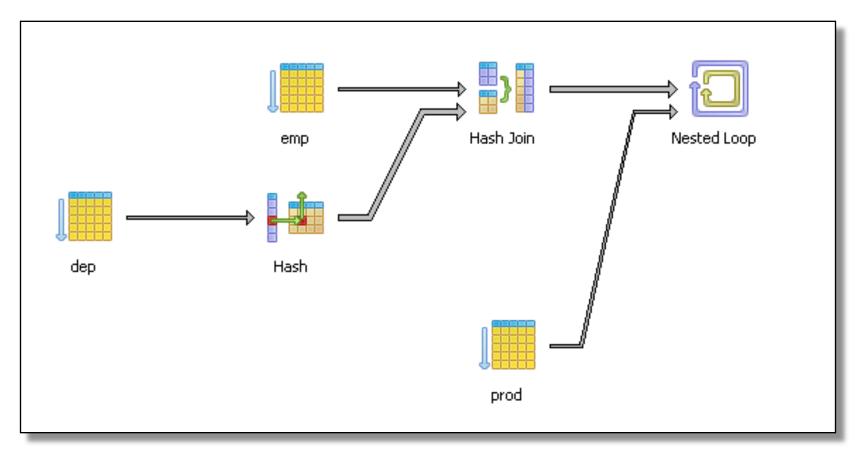






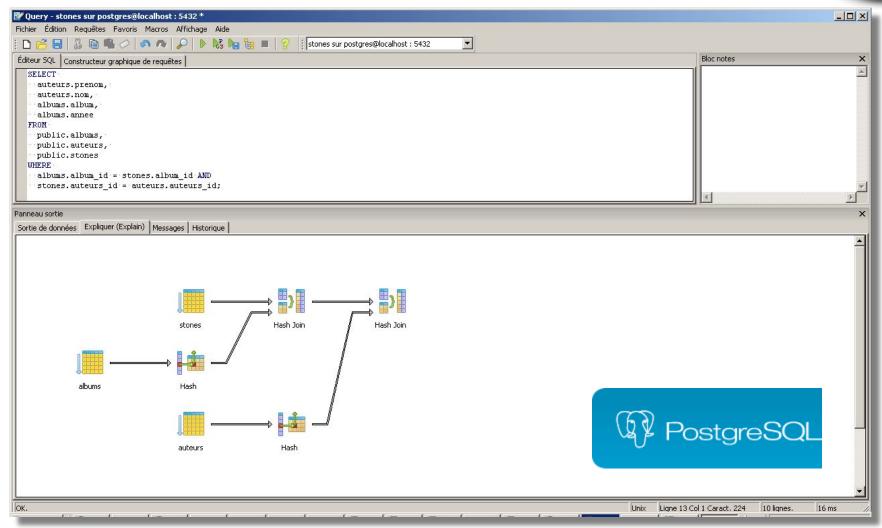




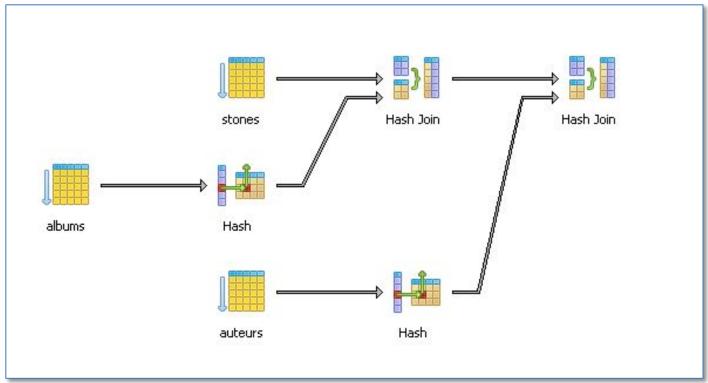














#### Join Algorithmn Implemenation





Nested loop

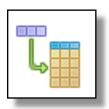
Merge join











Hash join



