Tutorials 5 and 6

PostgreSQL uses EXPLAIN command to show the execution plan PostgreSQL planner generates for a given SQL statement: (See link: www.postgresql.org/docs/9.6/static/sql-explain.html). The EXPLAIN command and be combined with ANALYZE and VERBOSE options, and FORMAT in some cases. Connect to "dvdrental" database and try the subsequent commands in the SQL editor tool:

Tutorial 5

1. Try to retrieve all the rows and columns from "rental" table, one of the biggest table in the database. Try this query:

   EXPLAIN ANALYZE VERBOSE SELECT * FROM rental;

 The command will show the query plan for executing this query
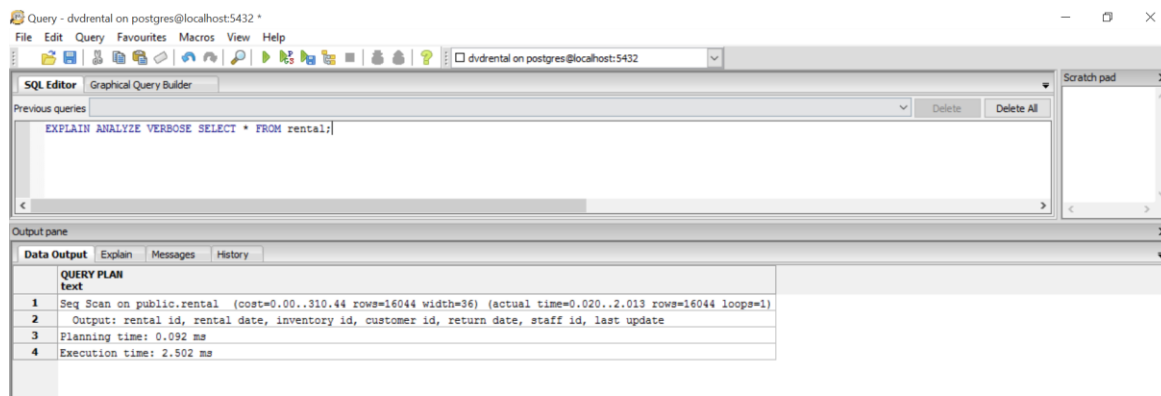
You may try other variations of this command:

   i.   EXPLAIN SELECT * FROM rental;
   ii.   EXPLAIN ANALYZE SELECT * FROM rental;
   iii.   EXPLAIN VERBOSE SELECT * FROM rental;

2. Now try a more conditional SQL query that contains join and value checking operations. Also try a more visual form of EXPLAIN command. The following query retrieves all records and columns from "rental" and "customer" tables that concern a customer with first name "Rebecca". The number of rows in "rental" and "customer" tables are 16044 and 599 respectively. The customer Rebecca has 24 DVD renting records. The result of the query is presented in the next page.

SELECT * FROM rental r, customer c WHERE r.customer_id = c.customer_id AND c.first_name = 'Rebecca';

To visualize the EXPLAIN command of the above query, in the tool bar of the SQL editor there is

this icon [icon], click on it. It will show the query plan tree in the "Explain" tab of the "Output pane". Hover over each node of the tree to see the query plan details.
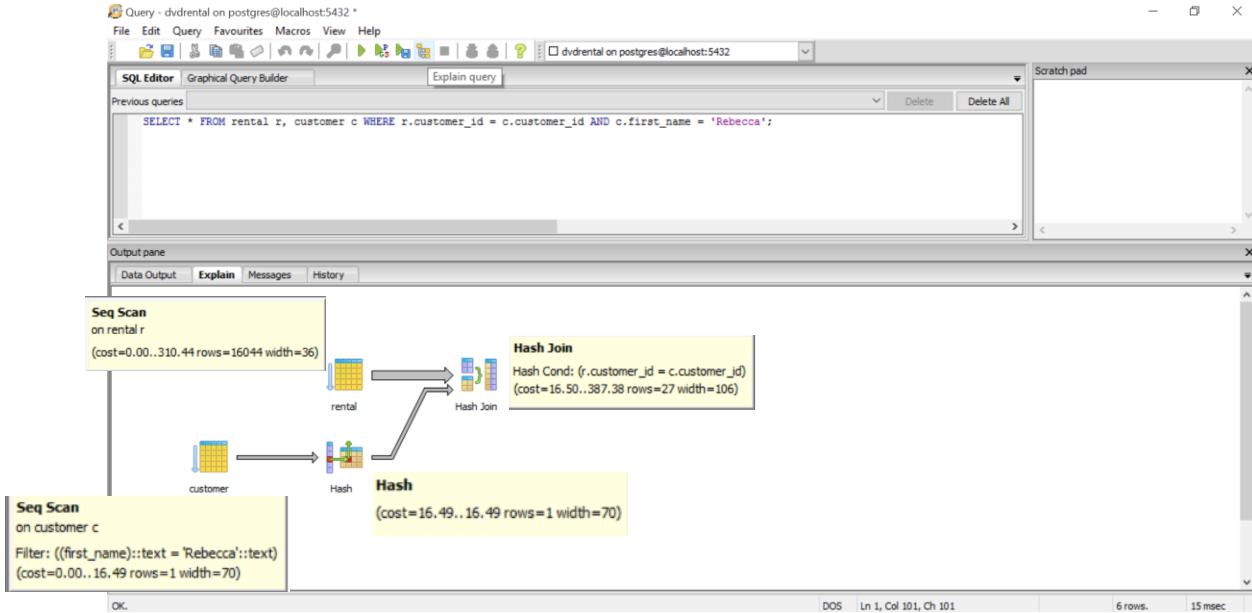
In the "Data Output" tab, you will see a textual description of the query plan:

Tutorial 6: PostgreSQL views

Try the exercises on PosgreSQL views provided in this link:
http://www.postgresqltutorial.com/postgresql-views/