

## TPC-DS query logs

### What to expect

- We are releasing **5,586 TPC-DS hive query** logs. All logs are obtained from a total of **83** publicly available TPC-DS templates.
- Each entry is a successfully executed query to our Presto engine, in which we record down the total CPU time taken for the execution and the resultant query plan. This timing is normalized using min-max normalization.
- A snippet of the Pandas.DataFrame is as such:

Columns	Description
logical_plan	Logical plan after running Presto command  explain (format graphviz) <query>
query	Raw query string
query_name	TPC-DS query template name
total_cpu_time	Recorded total CPU timing in minutes

```
digraph logical_plan {
    logical_plan
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select \n ca_state,\n cd_gender,\n cd_mar...
        query_99.sql
        total_cpu_time
        27.46
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select dt.d_year\n \t,item.i_brand_id brand_i...
        query_49.sql
        11.16
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select \n sum(ss_net_profit)/sum(ss_ext_sa...
        query_33.sql
        13.72
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select *\nfrom (select avg(ss_list_price) B1...
        query_25.sql
        87.60
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select ca_zip, ca_county, sum(ws_sales_price)...
        query_42.sql
        3.57
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        with ssaes as\n(select c_last_name\n ,c_...
        query_21.sql
        37.59
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select i_brand_id brand_id, i_brand brand, i_...
        query_16.sql
        12.59
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select sum (ss_quantity)\n from store_sales, s...
        query_45.sql
        14.50
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        with cs_ui as\n (select cs_item_sk\n ,s...
        query_61.sql
        64.20
    }
    digraph logical_plan {
        \nsubgraph cluster_graph...
        select i_item_id, \n avg(cs_quantity) ...
        query_23.sql
        9.10
    }
}
```

### Tutorial on how to extract the data

#### Step 1: Reading a CSV to Pandas.DataFrame object

```
# Unzip dependencies classes to folder
unzip tpc-ds-plans.csv.zip -d .
```

```
# Spawn Python REPL
import pandas as pd
```

```
df = pd.read_csv("./tpc-ds-plans.csv")
```