Without Sort key and Distribution Key

CREATE TABLE part

(

p\_partkey INTEGER NOT NULL,

p\_name VARCHAR(22) NOT NULL,

p\_mfgr VARCHAR(6) NOT NULL,

p\_category VARCHAR(7) NOT NULL,

p\_brand1 VARCHAR(9) NOT NULL,

p\_color VARCHAR(11) NOT NULL,

p\_type VARCHAR(25) NOT NULL,

p\_size INTEGER NOT NULL,

p\_container VARCHAR(10) NOT NULL

);

CREATE TABLE supplier

(

s\_suppkey INTEGER NOT NULL,

s\_name VARCHAR(25) NOT NULL,

s\_address VARCHAR(25) NOT NULL,

s\_city VARCHAR(10) NOT NULL,

s\_nation VARCHAR(15) NOT NULL,

s\_region VARCHAR(12) NOT NULL,

s\_phone VARCHAR(15) NOT NULL

);

CREATE TABLE customer

(

c\_custkey INTEGER NOT NULL,

c\_name VARCHAR(25) NOT NULL,

c\_address VARCHAR(25) NOT NULL,

c\_city VARCHAR(10) NOT NULL,

c\_nation VARCHAR(15) NOT NULL,

c\_region VARCHAR(12) NOT NULL,

c\_phone VARCHAR(15) NOT NULL,

c\_mktsegment VARCHAR(10) NOT NULL

);

CREATE TABLE dwdate

(

d\_datekey INTEGER NOT NULL,

d\_date VARCHAR(19) NOT NULL,

d\_dayofweek VARCHAR(10) NOT NULL,

d\_month VARCHAR(10) NOT NULL,

d\_year INTEGER NOT NULL,

d\_yearmonthnum INTEGER NOT NULL,

d\_yearmonth VARCHAR(8) NOT NULL,

d\_daynuminweek INTEGER NOT NULL,

d\_daynuminmonth INTEGER NOT NULL,

d\_daynuminyear INTEGER NOT NULL,

d\_monthnuminyear INTEGER NOT NULL,

d\_weeknuminyear INTEGER NOT NULL,

d\_sellingseason VARCHAR(13) NOT NULL,

d\_lastdayinweekfl VARCHAR(1) NOT NULL,

d\_lastdayinmonthfl VARCHAR(1) NOT NULL,

d\_holidayfl VARCHAR(1) NOT NULL,

d\_weekdayfl VARCHAR(1) NOT NULL

);

CREATE TABLE lineorder

(

lo\_orderkey INTEGER NOT NULL,

lo\_linenumber INTEGER NOT NULL,

lo\_custkey INTEGER NOT NULL,

lo\_partkey INTEGER NOT NULL,

lo\_suppkey INTEGER NOT NULL,

lo\_orderdate INTEGER NOT NULL,

lo\_orderpriority VARCHAR(15) NOT NULL,

lo\_shippriority VARCHAR(1) NOT NULL,

lo\_quantity INTEGER NOT NULL,

lo\_extendedprice INTEGER NOT NULL,

lo\_ordertotalprice INTEGER NOT NULL,

lo\_discount INTEGER NOT NULL,

lo\_revenue INTEGER NOT NULL,

lo\_supplycost INTEGER NOT NULL,

lo\_tax INTEGER NOT NULL,

lo\_commitdate INTEGER NOT NULL,

lo\_shipmode VARCHAR(10) NOT NULL

);

copy customer from 's3://awssampledbuswest2/ssbgz/customer'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy dwdate from 's3://awssampledbuswest2/ssbgz/dwdate'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy lineorder from 's3://awssampledbuswest2/ssbgz/lineorder'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy part from 's3://awssampledbuswest2/ssbgz/part'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy supplier from 's3://awssampledbuswest2/ssbgz/supplier'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

select count(\*) from LINEORDER;

select count(\*) from PART;

select count(\*) from CUSTOMER;

select count(\*) from SUPPLIER;

select count(\*) from DWDATE;

select stv\_tbl\_perm.name as table, count(\*) as mb

from stv\_blocklist, stv\_tbl\_perm

where stv\_blocklist.tbl = stv\_tbl\_perm.id

and stv\_blocklist.slice = stv\_tbl\_perm.slice

and stv\_tbl\_perm.name in ('lineorder','part','customer','dwdate','supplier')

group by stv\_tbl\_perm.name

order by 1 asc;

set enable\_result\_cache\_for\_session to off;

-- Query 1

-- Restrictions on only one dimension.

select sum(lo\_extendedprice\*lo\_discount) as revenue

from lineorder, dwdate

where lo\_orderdate = d\_datekey

and d\_year = 1997

and lo\_discount between 1 and 3

and lo\_quantity < 24;

-- Query 2

-- Restrictions on two dimensions

select sum(lo\_revenue), d\_year, p\_brand1

from lineorder, dwdate, part, supplier

where lo\_orderdate = d\_datekey

and lo\_partkey = p\_partkey

and lo\_suppkey = s\_suppkey

and p\_category = 'MFGR#12'

and s\_region = 'AMERICA'

group by d\_year, p\_brand1

order by d\_year, p\_brand1;

-- Query 3

-- Drill down in time to just one month

select c\_city, s\_city, d\_year, sum(lo\_revenue) as revenue

from customer, lineorder, supplier, dwdate

where lo\_custkey = c\_custkey

and lo\_suppkey = s\_suppkey

and lo\_orderdate = d\_datekey

and (c\_city='UNITED KI1' or

c\_city='UNITED KI5')

and (s\_city='UNITED KI1' or

s\_city='UNITED KI5')

and d\_yearmonth = 'Dec1997'

group by c\_city, s\_city, d\_year

order by d\_year asc, revenue desc;

where lo\_orderdate = d\_datekey and d\_year = 1997

where lo\_orderdate = d\_datekey and d\_year >= 1992 and d\_year <= 1997

explain

select sum(lo\_revenue), d\_year, p\_brand1

from lineorder, dwdate, part, supplier

where lo\_orderdate = d\_datekey

and lo\_partkey = p\_partkey

and lo\_suppkey = s\_suppkey

and p\_category = 'MFGR#12'

and s\_region = 'AMERICA'

group by d\_year, p\_brand1

order by d\_year, p\_brand1;

With Sort key and Distribution key

drop table part cascade;

drop table supplier cascade;

drop table customer cascade;

drop table dwdate cascade;

drop table lineorder cascade;

CREATE TABLE part (

p\_partkey integer not null sortkey distkey,

p\_name varchar(22) not null,

p\_mfgr varchar(6) not null,

p\_category varchar(7) not null,

p\_brand1 varchar(9) not null,

p\_color varchar(11) not null,

p\_type varchar(25) not null,

p\_size integer not null,

p\_container varchar(10) not null

);

CREATE TABLE supplier (

s\_suppkey integer not null sortkey,

s\_name varchar(25) not null,

s\_address varchar(25) not null,

s\_city varchar(10) not null,

s\_nation varchar(15) not null,

s\_region varchar(12) not null,

s\_phone varchar(15) not null)

diststyle all;

CREATE TABLE customer (

c\_custkey integer not null sortkey,

c\_name varchar(25) not null,

c\_address varchar(25) not null,

c\_city varchar(10) not null,

c\_nation varchar(15) not null,

c\_region varchar(12) not null,

c\_phone varchar(15) not null,

c\_mktsegment varchar(10) not null)

diststyle all;

CREATE TABLE dwdate (

d\_datekey integer not null sortkey,

d\_date varchar(19) not null,

d\_dayofweek varchar(10) not null,

d\_month varchar(10) not null,

d\_year integer not null,

d\_yearmonthnum integer not null,

d\_yearmonth varchar(8) not null,

d\_daynuminweek integer not null,

d\_daynuminmonth integer not null,

d\_daynuminyear integer not null,

d\_monthnuminyear integer not null,

d\_weeknuminyear integer not null,

d\_sellingseason varchar(13) not null,

d\_lastdayinweekfl varchar(1) not null,

d\_lastdayinmonthfl varchar(1) not null,

d\_holidayfl varchar(1) not null,

d\_weekdayfl varchar(1) not null)

diststyle all;

CREATE TABLE lineorder (

lo\_orderkey integer not null,

lo\_linenumber integer not null,

lo\_custkey integer not null,

lo\_partkey integer not null distkey,

lo\_suppkey integer not null,

lo\_orderdate integer not null sortkey,

lo\_orderpriority varchar(15) not null,

lo\_shippriority varchar(1) not null,

lo\_quantity integer not null,

lo\_extendedprice integer not null,

lo\_ordertotalprice integer not null,

lo\_discount integer not null,

lo\_revenue integer not null,

lo\_supplycost integer not null,

lo\_tax integer not null,

lo\_commitdate integer not null,

lo\_shipmode varchar(10) not null

);

copy customer from 's3://awssampledbuswest2/ssbgz/customer'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy dwdate from 's3://awssampledbuswest2/ssbgz/dwdate'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy lineorder from 's3://awssampledbuswest2/ssbgz/lineorder'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy part from 's3://awssampledbuswest2/ssbgz/part'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

copy supplier from 's3://awssampledbuswest2/ssbgz/supplier'

credentials 'aws\_access\_key\_id= AKIA2WWXWZB2EYN6BGPL;aws\_secret\_access\_key= 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 '

gzip compupdate off region 'us-west-2';

select stv\_tbl\_perm.name as "table", count(\*) as "blocks (mb)"

from stv\_blocklist, stv\_tbl\_perm

where stv\_blocklist.tbl = stv\_tbl\_perm.id

and stv\_blocklist.slice = stv\_tbl\_perm.slice

and stv\_tbl\_perm.name in ('customer', 'part', 'supplier', 'dwdate', 'lineorder')

group by stv\_tbl\_perm.name

order by 1 asc;

select trim(name) as table, slice, sum(num\_values) as rows, min(minvalue), max(maxvalue)

from svv\_diskusage

where name in ('customer', 'part', 'supplier', 'dwdate', 'lineorder')

and col =0

group by name, slice

order by name, slice;

explain

select sum(lo\_revenue), d\_year, p\_brand1

from lineorder, dwdate, part, supplier

where lo\_orderdate = d\_datekey

and lo\_partkey = p\_partkey

and lo\_suppkey = s\_suppkey

and p\_category = 'MFGR#12'

and s\_region = 'AMERICA'

group by d\_year, p\_brand1

order by d\_year, p\_brand1;

set enable\_result\_cache\_for\_session to off;

-- Query 1

-- Restrictions on only one dimension.

select sum(lo\_extendedprice\*lo\_discount) as revenue

from lineorder, dwdate

where lo\_orderdate = d\_datekey

and d\_year = 1997

and lo\_discount between 1 and 3

and lo\_quantity < 24;

-- Query 2

-- Restrictions on two dimensions

select sum(lo\_revenue), d\_year, p\_brand1

from lineorder, dwdate, part, supplier

where lo\_orderdate = d\_datekey

and lo\_partkey = p\_partkey

and lo\_suppkey = s\_suppkey

and p\_category = 'MFGR#12'

and s\_region = 'AMERICA'

group by d\_year, p\_brand1

order by d\_year, p\_brand1;

-- Query 3

-- Drill down in time to just one month

select c\_city, s\_city, d\_year, sum(lo\_revenue) as revenue

from customer, lineorder, supplier, dwdate

where lo\_custkey = c\_custkey

and lo\_suppkey = s\_suppkey

and lo\_orderdate = d\_datekey

and (c\_city='UNITED KI1' or

c\_city='UNITED KI5')

and (s\_city='UNITED KI1' or

s\_city='UNITED KI5')

and d\_yearmonth = 'Dec1997'

group by c\_city, s\_city, d\_year

order by d\_year asc, revenue desc;