1)

petrol\_data = LOAD 'petrol\_data.txt' USING PigStorage(',') AS (district\_id:chararray,distributor\_name:chararray,buy\_rate:chararray,sell\_rate:chararray,volume\_in:int,volume\_out:int,year:int);

grp\_petrol\_data = GROUP petrol\_data by distributor\_name;

volume\_sold = FOREACH grp\_petrol\_data GENERATE group,SUM(petrol\_data.volume\_out);

DUMP volume\_sold;

2)

petrol\_data = LOAD 'petrol\_data.txt' USING PigStorage(',') AS (district\_id:chararray,distributor\_name:chararray,buy\_rate:chararray,sell\_rate:chararray,volume\_in:int,volume\_out:int,year:int);

volume\_sold = FOREACH petrol\_data GENERATE (chararray)$0 as district\_id,(int)$5 as volume\_out;

volume\_sold\_ordered = ORDER volume\_sold by $1 DESC;

top10\_distributor\_id = LIMIT volume\_sold\_ordered 10;

DUMP top10\_distributor\_id;

3)

petrol\_data = LOAD 'petrol\_data.txt' USING PigStorage(',') AS (district\_id:chararray,distributor\_name:chararray,buy\_rate:chararray,sell\_rate:chararray,volume\_in:int,volume\_out:int,year:int);

grp\_petrol\_data = GROUP petrol\_data by year;

volume\_sold = FOREACH grp\_petrol\_data GENERATE group,SUM(petrol\_data.volume\_out);

volume\_sold\_ordered = ORDER volume\_sold by $1 DESC;

top10\_years = LIMIT volume\_sold\_ordered 10;

DUMP top10\_years;

4)

petrol\_data = LOAD 'petrol\_data.txt' USING PigStorage(',') AS (district\_id:chararray,distributor\_name:chararray,buy\_rate:chararray,sell\_rate:chararray,volume\_in:int,volume\_out:int,year:int);

grp\_petrol\_data = GROUP petrol\_data by distributor\_name;

volume\_sold = FOREACH grp\_petrol\_data GENERATE group,SUM(petrol\_data.volume\_out);

volume\_sold\_ordered = ORDER volume\_sold by $1 ASC;

distributor\_with\_least\_amt\_sold = LIMIT volume\_sold\_ordered 1;

DUMP distributor\_with\_least\_amt\_sold;