1. **find total number of customers for each profession**
2. **top ten customers from sales data along with their full details**

for local mode

**Pig -x local**

for mapreduce mode

**Pig or pig -x mapreduce**

**grunt>**

**Pig Programming**

* 1. Load Customer records

**from local file system**

cust = load '/home/hduser/custs' using PigStorage(',') AS ( custid, firstname, lastname, age:long, profession);

describe cust;

dump cust;

teacher\_bag = filter cust by profession=='Teacher';

**from hdfs**

cust = LOAD '/user/hduser/custs' USING PigStorage(',') AS ( custid, firstname, lastname, age:long, profession);

dump cust;

* 1. Select only 10 records

amt = LIMIT cust 10;

dump amt;

describe amt;

* 1. Group customer records by profession

groupbyprofession = GROUP cust BY profession;

describe groupbyprofession;

dump groupbyprofession;

* 1. Count no of customers by profession

countbyprofession = FOREACH groupbyprofession GENERATE group as profession, COUNT (cust) as headcount;

describe countbyprofession;

dump countbyprofession;

D 2. Sorting the output by profession

orderbyprofession = order countbyprofession by $0;

orderbycount = order countbyprofession by $1 desc;

dump orderbyprofession;

store orderbyprofession into '/home/hduser/cust\_count';

illustrate orderbyprofession;

topprof = limit orderbycount 10;

* 1. Load transaction records

txn = LOAD '/home/hduser/txns1.txt' USING PigStorage(',') AS ( txnid, date, custid, amount:double, category, product, city, state, type);

* 1. Group transactions by customer

txnbycust = group txn by custid;

dump txnbycust;

* 1. Sum total amount spent by each customer

spendbycust = foreach txnbycust generate group as customer\_id, ROUND\_TO(SUM(txn.amount ),2) as totalsales;

dump spendbycust;

* 1. Order the customer records beginning from highest spender

custorder = order spendbycust by $1 desc;

dump custorder;

* 1. Select only top 10 customers

top10cust = limit custorder 10;

dump top10cust;

* 1. Join the transactions with customer details

**top10join = join top10cust by $0, cust by $0;**

describe top10join;

dump top10join;

* 1. Select the required fields from the join for final output

top10 = foreach top10join generate $0, $3, $4, $5, $6, $1;

dump top10;

top10order = order top10 by $5 desc;

describe top10order;

* 1. Dump and store the final output

dump top10order;

store top10order into '/home/hduser/pig\_result';

**Also find**

1. **total sales**
2. **total cash sales with %**
3. **total credit card sales with %**

**Hint : to calculate total sales**

**bagname = Group <oldbag> ALL**

**Also find**

**Track customers whose age is less than 50 and total purchases done more than USD 500**

1. load the txn table and customer table
2. group by txn table by custid
3. sum total sales for each cust id
4. filter on the above to get cust id totalsales > 500
5. join this data with customer data
6. filter on age column