

```

grunt> banks = load '/user/bigdata/bank.tbl' using PigStorage('|') as
>>
(NAME:chararray,HQ_COUNTRY:chararray,HQ_CITY:chararray,HQ_STREET:chararra
y,HQ_BUILDING_NUMBER:int,WEB_SITE:chararray,EMAIL:chararray,BANK_TYPE:cha
rarray);
2021-11-21 22:35:22,456 [main] INFO
org.apache.hadoop.conf.Configuration.deprecation - fs.default.name is
deprecated. Instead, use fs.defaultFS
grunt> accounts = load '/user/bigdata/account.tbl' using PigStorage('|')
as
>>
(ACCOUNT_NUMBER:long,BANK_NAME:chararray,BALANCE:float,ACCOUNT_TYPE:chara
rray);
2021-11-21 22:35:22,692 [main] INFO
org.apache.hadoop.conf.Configuration.deprecation - fs.default.name is
deprecated. Instead, use fs.defaultFS
grunt> transactions = load '/user/bigdata/transaction.tbl' using
PigStorage('|') as
>>
(ACCOUNT_NUMBER:long,BANK_NAME:chararray,DATE_TIME:chararray,AMOUNT:float
,TRANSACTION_TYPE:chararray);
2021-11-21 22:35:26,781 [main] INFO
org.apache.hadoop.conf.Configuration.deprecation - fs.default.name is
deprecated. Instead, use fs.defaultFS
grunt> bank_accounts = join accounts by BANK_NAME, banks by NAME;
grunt> construction = filter bank_accounts by BANK_TYPE ==
'construction';
grunt> results = foreach construction generate ACCOUNT_NUMBER,BANK_TYPE;
grunt> dump results;
(123456788,construction)
(593456725,construction)
(313345681,construction)
(5122456739,construction)
(123456789,construction)
grunt> deposit_transactions = filter transactions by TRANSACTION_TYPE ==
'deposit';
grunt> withdrawal_transactions = filter transactions by TRANSACTION_TYPE
== 'withdrawal';
grunt> deposit_accounts = foreach deposit_transactions generate
ACCOUNT_NUMBER;
grunt> withdrawal_accounts = foreach withdrawal_transactions generate
ACCOUNT_NUMBER;
grunt> both = join deposit_accounts by ACCOUNT_NUMBER,
withdrawal_accounts by ACCOUNT_NUMBER;
grunt> results = distinct (foreach both generate
deposit_accounts::ACCOUNT_NUMBER);
grunt> dump results;
(2523456752)
(2523456757)
(3123456712)
(3123456720)
(3323456721)
(3623456728)
(4123456720)
(4123456730)
(4123456788)
(5122456739)
(5123456725)

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(6123456705)
(7123456719)
(7223456719)
(7823456713)
(8123456781)
(9123456689)
(9123456717)
(9123456786)
(123356784)
(123456710)
(123456730)
(123456779)
(123456789)
(153456782)
(313345681)
(593456725)
(623456781)
(823426784)
(963456721)
(1123455701)
(1123456712)
(1123456768)
(1123456789)
(1153456711)
(2123356710)
(2123456703)
grunt> non_deposit_transactions = filter transactions by
TRANSACTION_TYPE != 'deposit';
grunt> non_deposit_accounts = distinct(foreach non_deposit_transactions
generate ACCOUNT_NUMBER);
grunt> deposit_transactions = filter transactions by TRANSACTION_TYPE ==
'deposit';
grunt> deposit_accounts = distinct(foreach deposit_transactions generate
ACCOUNT_NUMBER);
grunt> both = join deposit_accounts by ACCOUNT_NUMBER left outer,
non_deposit_accounts by ACCOUNT_NUMBER;
grunt> isnull = filter both by non_deposit_accounts::ACCOUNT_NUMBER is
null;
grunt> results = foreach isnull generate
deposit_accounts::ACCOUNT_NUMBER;
grunt> dump results;
(1193456783)
(2123453713)
(2223456770)
(5023456739)
(6223456740)
grunt>

```