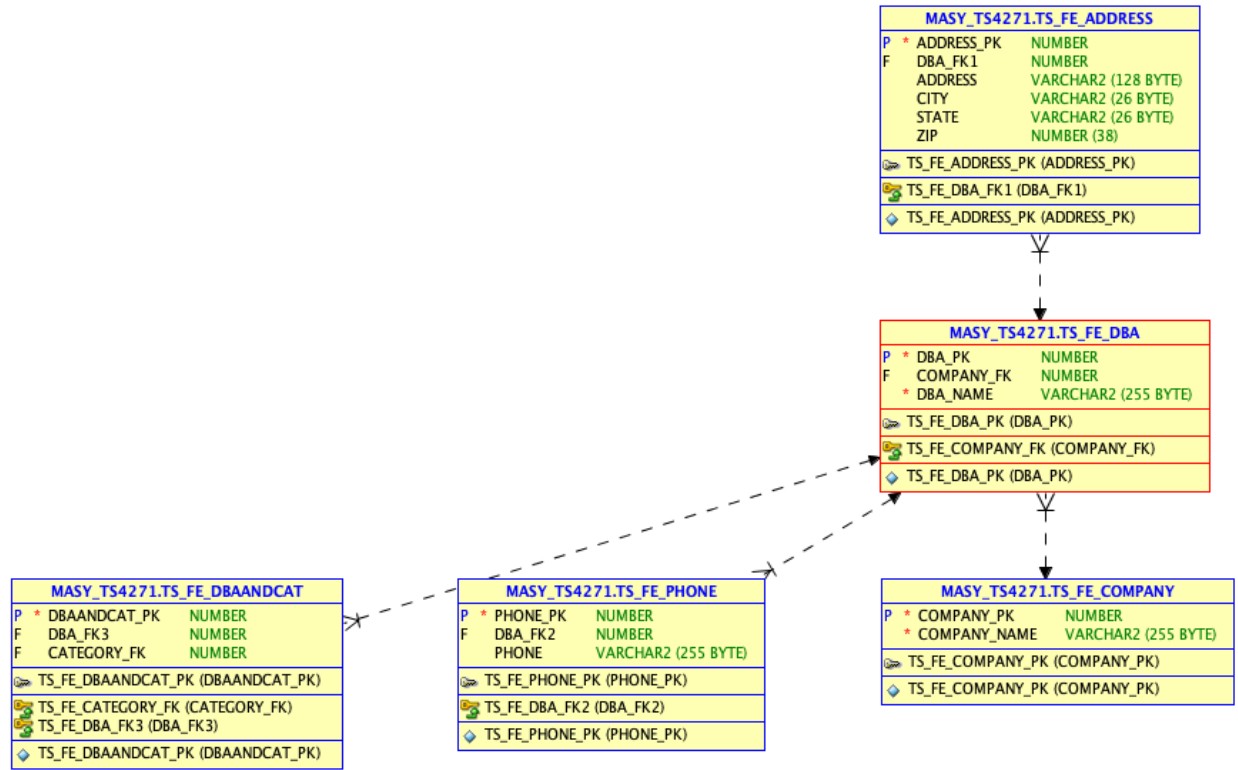
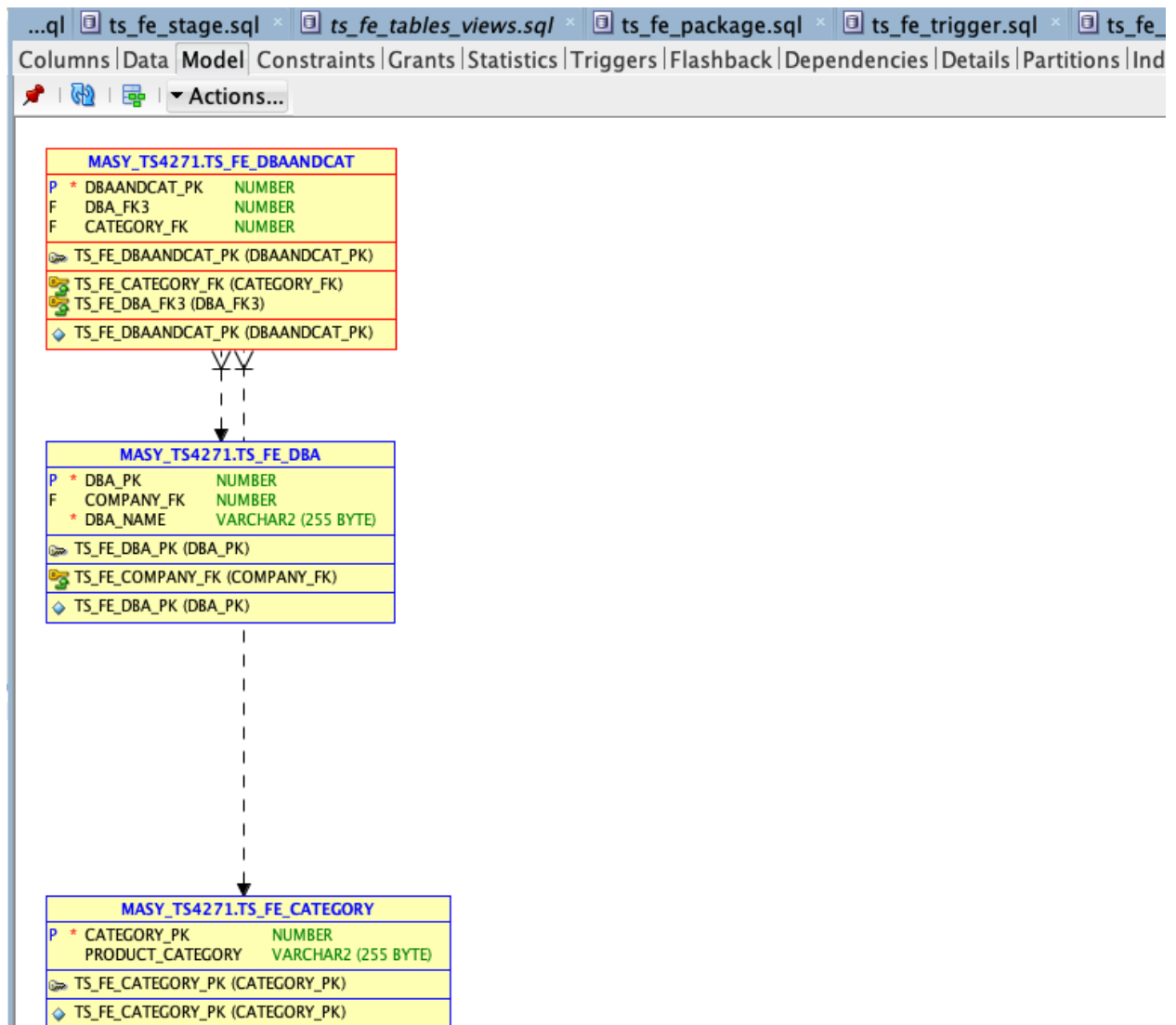
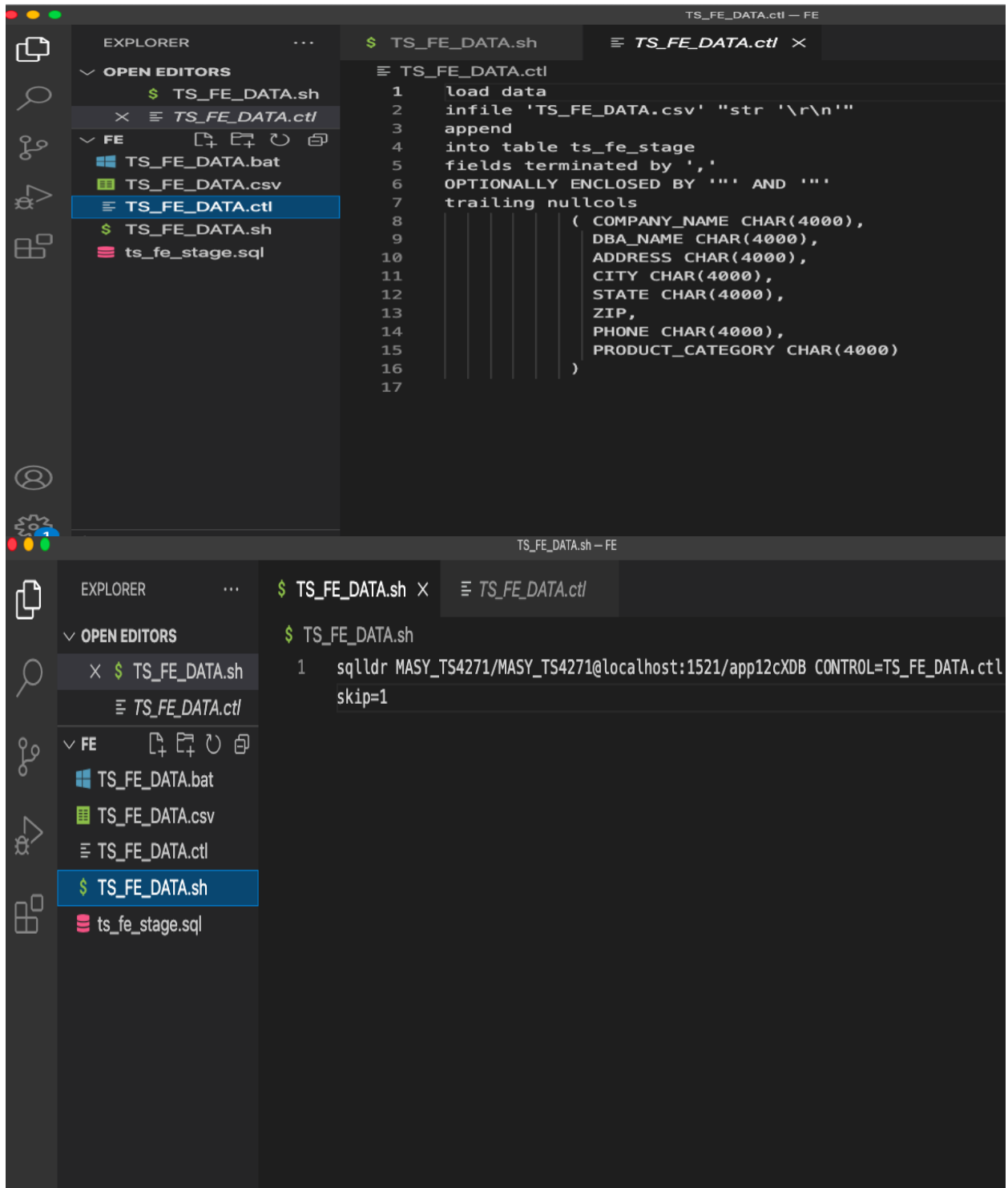


## Data model





SQL Loader



NYU\_Server - sftp://ts4271@workshop.SPS.NYU.edu - FileZilla

Host: Username: Password: Port: Quickconnect

Status: Connected to workshop-sps-lb-external-90fb1ab45ae62fab.elb.us-east-1.amazonaws.com  
 Status: Retrieving directory listing...  
 Status: Listing directory /home/ts4271  
 Status: Directory listing of "/home/ts4271" successful  
 Status: Retrieving directory listing of "/home/ts4271/fall2021"...  
 Status: Listing directory /home/ts4271/fall2021  
 Status: Directory listing of "/home/ts4271/fall2021" successful

Local site: /Users/shantianlin/Desktop/FE/ Remote site: /home/ts4271/fall2021

Filename	Filesize	Filetype	Last modified
TS_FE_DATA.sh	87	Shell script	12/06/2021 14:3...
TS_FE_DATA.ctf	425	ctf-file	12/06/2021 14:2...
TS_FE_DATA.bat	41	Windows comma...	12/06/2021 14:2...
TS_FE_DATA.csv	1,436,955	Comma Separat...	12/06/2021 14:11...

4 files. Total size: 1,437,508 bytes

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
hw1		Directory	09/25/2021 1...	drwxr-xr-x	ts4271 dba
HW7		Directory	11/05/2021 2...	drwxr-xr-x	ts4271 dba
FE		Directory	12/06/2021 1...	drwxr-xr-x	ts4271 dba

3 directories

Oracle SQL Developer : /Users/shantianlin/Import-TS\_FE\_DATA-csv\_2021.12.06-14.25.06.sql

...ql NYU\_MASY\_TS4271\_SSH8.sql Welcome Page NYU\_MASY\_TS4271\_SSH Import-TS

SQL Worksheet History

Worksheet Query Builder

```

1 SET DEFINE OFF
2 CREATE TABLE ts_fe_stage ( COMPANY_NAME VARCHAR2(128),
3 DBA_NAME VARCHAR2(128),
4 ADDRESS VARCHAR2(128),
5 CITY VARCHAR2(26),
6 STATE VARCHAR2(26),
7 ZIP NUMBER(38),
8 PHONE VARCHAR2(26),
9 PRODUCT_CATEGORY VARCHAR2(128));
10
11 /* .ctl .sh and .bat files are found in /Users/shantianlin/Desktop/FE. */
12

```

## Package and Triggers

SQL Worksheet History

0.013 seconds NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
96
97
98 procedure p_run_all
99 is
100 begin
101     insert_company;
102     insert_dba;
103     insert_address;
104     insert_phone;
105     insert_category;
106     insert_dbaAndCat;
107 end;
108
109 end ts_fe_data;
110 --sqlplus run
111 begin
112     ts_fe_data.p_run_all;
113 end;
114 commit;
```

Script Output x

Task completed in 7.009 seconds

Package TS\_FE\_DATA compiled

Package Body TS\_FE\_DATA compiled

PL/SQL procedure successfully completed.

Oracle SQL Developer : /Users/shantianlin/Desktop/FE/ts\_fe\_trigger.sql

...ql ts\_fe\_view.sql x ts\_fe\_stage.sql x ts\_fe\_tables\_views.sql x ts\_fe\_package.sql x ts\_fe\_trigger.sql x Untitled10.sql x

SQL Worksheet History

Task completed in 0.408 seconds NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
107 declare
108     v_ts_fe_dbaAndCat_pk number;
109     dbaAndCat_pk number;
110 begin
111     dbms_output.put_line('in trigger');
112     --get next value
113     if :new.dbaAndCat_pk is null then
114         select seq_ts_fe_dba.nextval
115         into v_ts_fe_dbaAndCat_pk
116         from dual;
117     --set the ZPK before doing insert
118     :new.dbaAndCat_pk := v_ts_fe_dbaAndCat_pk;
119     end if;
120 end;
```

Script Output x

Task completed in 0.408 seconds

Trigger TS\_FE\_ADDRESS\_TRIGGER compiled

Trigger TS\_FE\_PHONE\_TRIGGER compiled

Trigger TS\_FE\_CATEGORY\_TRIGGER compiled

Trigger TS\_FE\_DBA\_TRIGGER compiled

Trigger TS\_FE\_DBAANDCAT\_TRIGGER compiled

View of data file

SQL Worksheet History

Worksheet Query Builder

```

90 select count(*) from ts_fe_category,
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
99 select count(*) from ts_fe_stage;
100
101 create or replace view ts_fe_view as
102     select distinct ts_fe_dba.dba_name,ts_fe_address.address,ts_fe_address.city,ts_fe_address.state,ts_fe_address.zip,
103     ts_fe_company.company_name,ts_fe_category.product_category
104     from ts_fe_address
105     full outer join ts_fe_dba on ts_fe_dba.dba_pk=ts_fe_address.dba_fk1
106     full outer join ts_fe_company on ts_fe_dba.company_fk=ts_fe_company.company_pk
107     full outer join ts_fe_dbaAndCat on ts_fe_dbaAndCat.dba_fk3=ts_fe_dba.dba_pk
108     full outer join ts_fe_category on ts_fe_category.category_pk=ts_fe_dbaAndCat.category_fk;
109 select * from ts_fe_view;
110 select count(*) from ts_fe_view;
111

```

Query Result x

All Rows Fetched: 1 in 0.044 seconds

COUNT(*)
10280

## SQL Plus

```

$ TS_FE_DATA.sh x ts_fe_run.sql

$ TS_FE_DATA.sh
1  sqlldr MASY_TS4271/MASY_TS4271@localhost:1521/app12cXDB CONTROL=TS_FE_DATA.ctl
   skip=1;
2  sqlplus MASY_TS4271/MASY_TS4271@localhost:1521/app12cXDB @ts_fe_run.sql

```

```
NYU_MASY_TS4271_SSH
shantianlin — ts4271@workshop:~/fall2021/FE — ssh - sh nyu_tunnel.sh — 8...
Commit point reached - logical record count 9524
Commit point reached - logical record count 9561
Commit point reached - logical record count 9598
Commit point reached - logical record count 9635
Commit point reached - logical record count 9672
Commit point reached - logical record count 9709
Commit point reached - logical record count 9746
Commit point reached - logical record count 9783
Commit point reached - logical record count 9820
Commit point reached - logical record count 9857
Commit point reached - logical record count 9894
Commit point reached - logical record count 9931
Commit point reached - logical record count 9968
Commit point reached - logical record count 10005
Commit point reached - logical record count 10007
Commit point reached - logical record count 10008

Table TS_FE_STAGE:
  10008 Rows successfully loaded.

Check the log file:
  TS_FE_DATA.log
for more information about the load.

NYU_MASY_TS4271_SSH
shantianlin — ts4271@workshop:~/fall2021/FE — ssh - sh nyu_tunnel.sh — 8...
Commit point reached - logical record count 10008

Table TS_FE_STAGE:
  10008 Rows successfully loaded.

Check the log file:
  TS_FE_DATA.log
for more information about the load.

SQL*Plus: Release 19.0.0.0.0 - Production on Sun Dec 12 07:45:30 2021
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Last Successful login time: Sun Dec 12 2021 07:45:27 -05:00

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

PL/SQL procedure successfully completed.

SQL>
```

Count(\*) for each table

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
92 select * from ts_fe_stage;
93 select count(*) from ts_fe_company;
94 select count(*) from ts_fe_address;
95 select count(*) from ts_fe_phone;
96 select count(*) from ts_fe_category;
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.02 seconds

1	COUNT(*)
1	915

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
92 select * from ts_fe_stage;
93 select count(*) from ts_fe_company;
94 select count(*) from ts_fe_address;
95 select count(*) from ts_fe_phone;
96 select count(*) from ts_fe_category;
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.017 seconds

1	COUNT(*)
1	9871

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
94 select count(*) from ts_fe_address;
95 select count(*) from ts_fe_phone;
96 select count(*) from ts_fe_category;
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
99 select count(*) from ts_fe_stage;
100
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.018 seconds

1	COUNT(*)
1	2

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
92 select * from ts_fe_stage;
93 select count(*) from ts_fe_company;
94 select count(*) from ts_fe_address;
95 select count(*) from ts_fe_phone;
96 select count(*) from ts_fe_category;
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.015 seconds

1	COUNT(*)
1	9853

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
94 select count(*) from ts_fe_address;
95 select count(*) from ts_fe_phone;
96 select count(*) from ts_fe_category;
97 select count(*) from ts_fe_dba;
98 select count(*) from ts_fe_dbaAndCat;
99 select count(*) from ts_fe_stage;
100
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.037 seconds

1	COUNT(*)
1	9083



SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
94 select count(*) from ts_fe_address;  
95 select count(*) from ts_fe_phone;  
96 select count(*) from ts_fe_category;  
97 select count(*) from ts_fe_dba;  
98 select count(*) from ts_fe_dbaAndCat;  
99 select count(*) from ts_fe_stage;  
100
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.021 seconds

	COUNT(*)
1	9109

SQL Worksheet History

NYU\_MASY\_TS4271\_SSH

Worksheet Query Builder

```
94 select count(*) from ts_fe_address;  
95 select count(*) from ts_fe_phone;  
96 select count(*) from ts_fe_category;  
97 select count(*) from ts_fe_dba;  
98 select count(*) from ts_fe_dbaAndCat;  
99 select count(*) from ts_fe_stage;  
100
```

Script Output x Query Result x

SQL All Rows Fetched: 1 in 0.016 seconds

	COUNT(*)
1	10008