Report

Laboratory Work 1

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August 02, 2022

1. Prerequisites

1.1. Passwords Index

Password Group	Login Name	Password
Operation System	root	“rootadmin”
	oracle	“oracleadmin”
Oracle System	sys	“sysadmin”
	system	“sysadmin”
Oracle Users	All DB users	“%PWD%”

1.2. Folder Paths Index

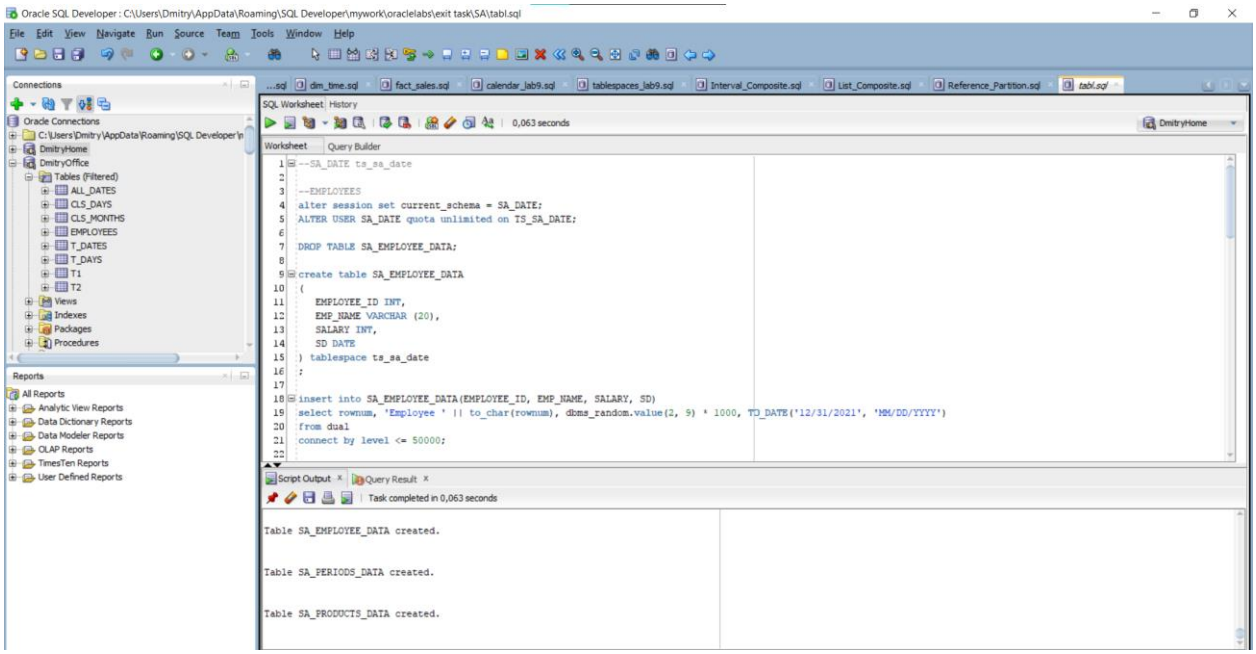
Path Group	Path Description	Path
Operation System	Oracle RDBMS – BIN	/oracle/app/oracle
	Oracle Inventory	/oracle/app/oraInventory
	Oracle Database Storage	/oracle/oradata
	Oracle Install Directory	/oracle/install
Oracle	ORACLE_BASE	/oracle/app/oracle
	ORACLE_HOME	$ORACLE_BASE/product/11.2
FTP	ftp Incoming Folder	`/ftp/incoming`

Data Warehouse Architecture – Storage Layers

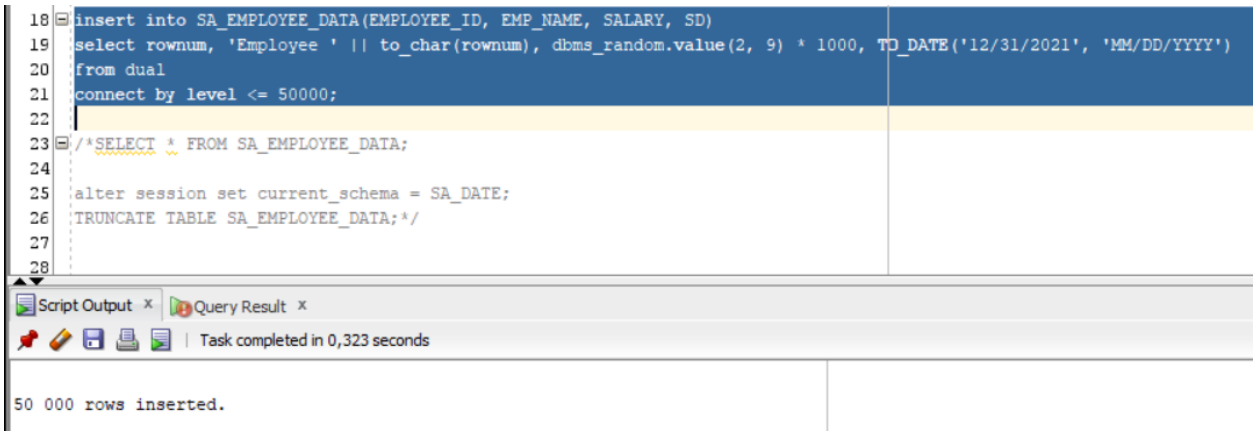
2.1. Task 01: CREATE Storage Objects

The Main Task is to create Physical Objects according yours Solution Proposal that was developed on Module 6 – Oracle DB. Introduction to DWH.

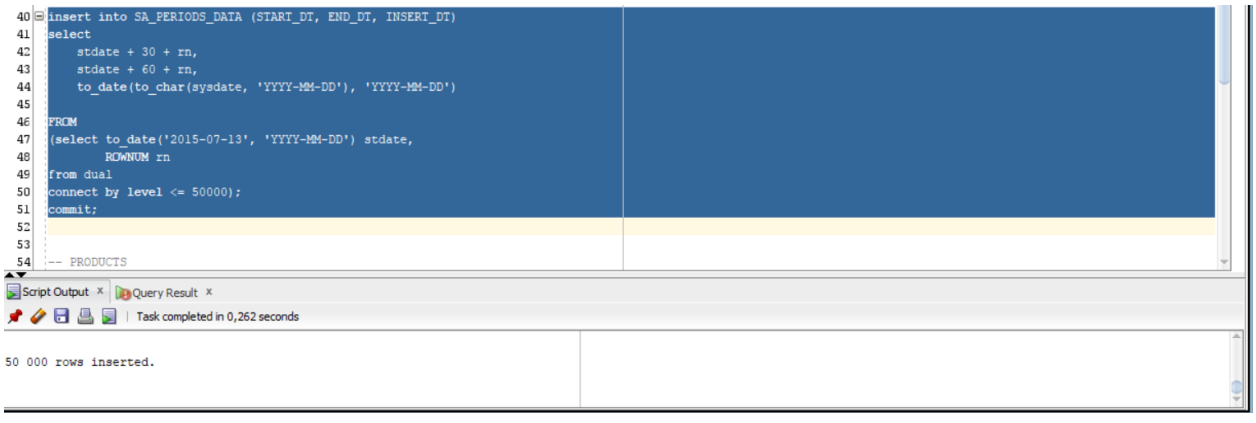
DDL SCRIPTS STOPRED ON GIT. I created 3 table for example, not to complicate.



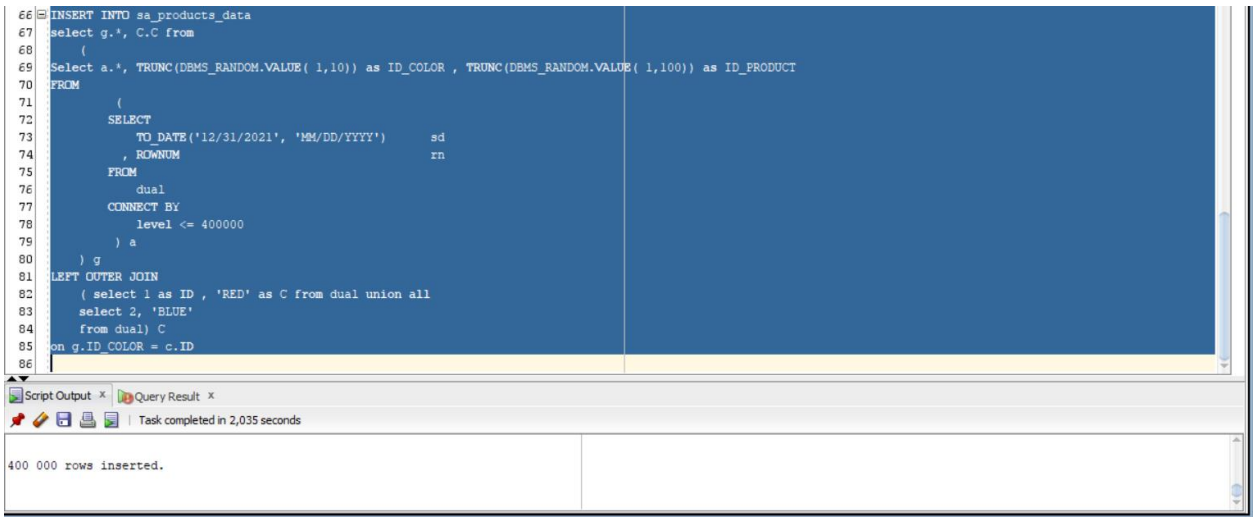
Picture 1 - Creating tables



Picture 2 - DML



Picture 3 – DML



Picture 4 - DML

2.2. Task 02: Generate Test Data in Storage Layers

The Main Task is to generate test data on Storage layers objects, that was created on task 01.

I generated data using following scripts (also putted on GIT):

[1]

```
insert into SA_EMPLOYEE_DATA(EMPLOYEE_ID, EMP_NAME, SALARY, SD)
select rownum, 'Employee ' || to_char(rownum), dbms_random.value(2, 9) * 1000,
 TO_DATE('12/31/2021', 'MM/DD/YYYY')
from dual
connect by level <= 50000;
```

[2]

```
insert into SA_PERIODS_DATA (START_DT, END_DT, INSERT_DT)
select
   stdate + 30 + rn,
   stdate + 60 + rn,
   to_date(to_char(sysdate, 'YYYY-MM-DD'), 'YYYY-MM-DD')

FROM
(select to_date('2015-07-13', 'YYYY-MM-DD') stdate,
      ROWNUM rn
from dual
connect by level <= 50000);
```

[3]

```
INSERT INTO sa_products_data
select g.*, C.C from
  (
Select a.*, TRUNC(DBMS_RANDOM.VALUE( 1,10)) as ID_COLOR , TRUNC(DBMS_RANDOM.VALUE( 1,100)) as ID_PRODUCT
FROM
     (
    SELECT
      TO_DATE('12/31/2021', 'MM/DD/YYYY')     sd
     , ROWNUM                          rn
    FROM
      dual
    CONNECT BY
      level <= 400000
     ) a
  ) g
LEFT OUTER JOIN
  ( select 1 as ID , 'RED' as C from dual union all
  select 2, 'BLUE'
  from dual) C
on g.ID_COLOR = c.ID
```

I know we also could have use UNION ALL operators to generate data or SCROSS JOIN's, but I chose this variant cause it much more optimized (less cost also)

```
select COUNT(*) from SA_EMPLOYEE_DATA ,
select COUNT(*) from SA_PERIODS_DATA ,
select COUNT(*) from SA_PRODUCTS_DATA
```

COUNT(*)	COUNT(*)	COUNT(*)
50000	50000	400000

Picture 5 - Counts from tables

Laboratory work summary:

At this lab we have learned how (and which opportunities) gives as Oracle in generating Data for test e.g. It is absolutely clear that generating so much data is not needed every time we have to test SA layer(but also can use back – end p.l. to generate them easily). Nevertheless, this type is also quite acceptable if we have to test smth not to use some Back techs. All diagrams and scripts are stored in GitHub (link in README file in Labs folder)