

Report

Laboratory Work 7

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July 22, 2022

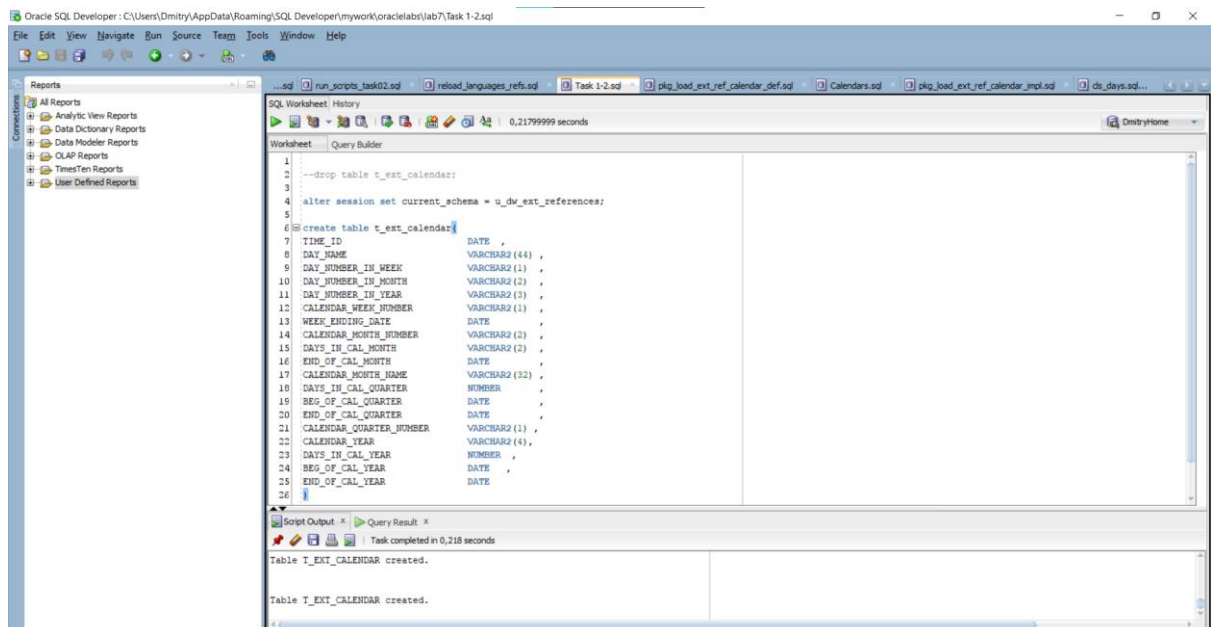
Prerequisites

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



2. Create and populate Dimension of TIME DW – Layer

Notes:

To Populate Time dims use External Resources:

File Name	Path
Calendars.sql	... \Topic 07 - Dimension and Facts Basics\LabScripts\

2.1. Task 01: CREATE DW.T_DAYS

The Main Task is to create Physical diagram and Objects on DW layer:

Task Results:

Create document, which contained next chapters:

- Physical diagram store on GIT
- Links to Scripts on GIT

2.2. Task 02: CREATE DW.T_WEEKS

The Main Task is to create Physical diagram and Objects on DW layer:

Task Results:

Create document, which contained next chapters:

- Physical diagram store on GIT
- Links to Scripts on GIT

2.3. Task 03: CREATE DW.T_MONTHS

The Main Task is to create Physical diagram and Objects on DW layer:

Task Results:

Create document, which contained next chapters:

- Physical diagram store on GIT
- Links to Scripts on GIT

2.4. Task 04: CREATE DW.T_QUARTERS

The Main Task is to create Physical diagram and Objects on DW layer:

Task Results:

Create document, which contained next chapters:

- Physical diagram store on GIT
- Links to Scripts on GIT

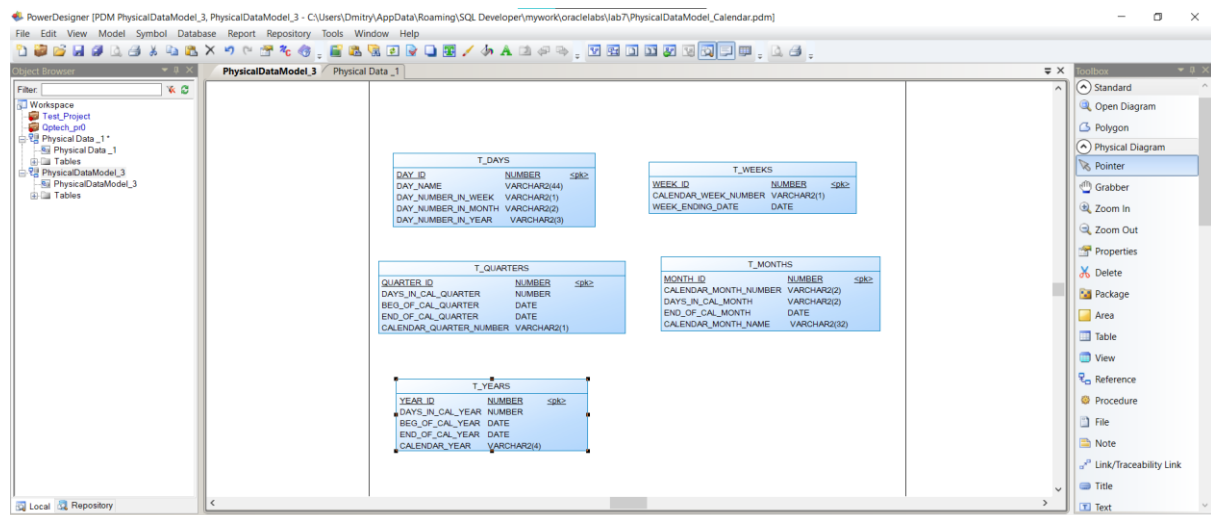
2.5. Task 05: CREATE DW.T_YEARS

The Main Task is to create Physical diagram and Objects on DW layer:

Task Results:

Create document, which contained next chapters:

- Physical diagram store on GIT
- Links to Scripts on GIT



Laboratory work summary:

At this laboratory work, we touched principals of (re)building schemas, used our knowledge in practice and saw how DFD and physical diagrams can help in understanding of schema building.

We created Calendar at first; then we created impl and def packages to insert cleansing tables.

After cleansing, we created tables for each dimension: day, week, month, quarter, and year. We added primary column for them and created sequences,

views. We created init script files to insert with data each from their cleansed “brothers”. At screenshots below, you can see the structure of tables and data they store.

All diagrams and scripts are stored in GitHub (link in README file in Labs folder)

The screenshot shows the Oracle SQL Developer interface. The script editor contains the following SQL code:

```
15 alter session set current_schema=u_dw_references;
16 SELECT * FROM t_years;
17
18 alter session set current_schema=u_dw_references;
19 SELECT * FROM t_years;
20
21 alter session set current_schema=u_dw_references;
22 SELECT * FROM t_years;
23
24
```

The query results are displayed in a table with the following columns: DAY_ID, DAY_NAME, DAY_NUMBER_IN_WEEK, DAY_NUMBER_IN_MONTH, and DAY_NUMBER_IN_YEAR. The data represents the days of the year 2022.

DAY_ID	DAY_NAME	DAY_NUMBER_IN_WEEK	DAY_NUMBER_IN_MONTH	DAY_NUMBER_IN_YEAR
1	1 Суббота	6	01	001
2	2 Воскресенье	7	02	002
3	3 Понедельник	1	03	003
4	4 Вторник	2	04	004
5	5 Среда	3	05	005
6	6 Четверг	4	06	006
7	7 Пятница	5	07	007
8	8 Суббота	6	08	008
9	9 Воскресенье	7	09	009
10	10 Понедельник	1	10	010
11	11 Вторник	2	11	011
12	12 Среда	3	12	012
13	13 Четверг	4	13	013
14	14 Пятница	5	14	014
15	15 Суббота	6	15	015
16	16 Воскресенье	7	16	016
17	17 Понедельник	1	17	017
18	18 Вторник	2	18	018

The screenshot shows the Oracle SQL Developer interface. The script editor contains the following SQL code:

```
15 alter session set current_schema=u_dw_references;
16 SELECT * FROM t_years;
17
18 alter session set current_schema=u_dw_references;
19 SELECT * FROM t_years;
20
21 alter session set current_schema=u_dw_references;
22 SELECT * FROM t_years;
23
24
```

The query results are displayed in a table with the following columns: WEEK_ID, CALENDAR_WEEK_NUMBER, and WEEK_ENDING_DATE. The data represents the weeks of the year 2022.

WEEK_ID	CALENDAR_WEEK_NUMBER	WEEK_ENDING_DATE
1	11	02.01.22
2	21	02.01.22
3	31	09.01.22
4	41	09.01.22
5	51	09.01.22
6	61	09.01.22
7	71	09.01.22
8	82	09.01.22
9	92	09.01.22
10	102	16.01.22
11	112	16.01.22
12	122	16.01.22
13	132	16.01.22
14	142	16.01.22
15	153	16.01.22
16	163	16.01.22
17	173	23.01.22
18	183	23.01.22

The screenshot shows the Oracle SQL Developer interface. The script editor contains the following SQL code:

```
19 alter session set current_schema=u_dw_references;
20 SELECT * FROM t_years;
21
22 alter session set current_schema=u_dw_references;
23 SELECT * FROM t_years;
24
25 alter session set current_schema=u_dw_references;
26 SELECT * FROM t_years;
27
28 alter session set current_schema=u_dw_references;
29 SELECT * FROM t_years;
30
```

The query results are displayed in a table with the following columns: MONTH_ID, CALENDAR_MONTH_NUMBER, DAYS_IN_CAL_MONTH, END_OF_CAL_MONTH, and CALENDAR_MONTH_NAME. The data represents the months of the year 2022.

MONTH_ID	CALENDAR_MONTH_NUMBER	DAYS_IN_CAL_MONTH	END_OF_CAL_MONTH	CALENDAR_MONTH_NAME
1	101	31	31.01.22	Январь
2	201	31	31.01.22	Январь
3	301	31	31.01.22	Январь
4	401	31	31.01.22	Январь
5	501	31	31.01.22	Январь
6	601	31	31.01.22	Январь
7	701	31	31.01.22	Январь
8	801	31	31.01.22	Январь
9	901	31	31.01.22	Январь
10	1001	31	31.01.22	Январь
11	1101	31	31.01.22	Январь
12	1201	31	31.01.22	Январь
13	1301	31	31.01.22	Январь
14	1401	31	31.01.22	Январь
15	1501	31	31.01.22	Январь
16	1601	31	31.01.22	Январь
17	1701	31	31.01.22	Январь
18	1801	31	31.01.22	Январь

Oracle SQL Developer: C:\Users\Dmitry\AppData\Roaming\SQL Developer\mywork\oracletab\lab7\dw_ext_references\tables\t_years-ints.sql

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Reports

- All Reports
- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- TimesTen Reports
- User Defined Reports

SQL Worksheet: History

Worksheet Query Builder

```

10  BEGIN_CALENDAR_YEAR,
11  END_OF_CALENDAR_YEAR,
12  CALENDAR_YEAR FROM dw_ext_references.cis_years;
13
14  COMMIT;
15
16  alter session set current_schema= dw_references;
17  SELECT * FROM t_quarters;
18
19  alter session set current_schema= dw_references;

```

Script Output x Query Result x Query Result 1 x

SQL | Fetched 50 rows in 0.113 seconds

QUARTER_ID	DAYS_IN_CAL_QUARTER	BEG_OF_CAL_QUARTER	END_OF_CAL_QUARTER	CALENDAR_QUARTER_NUMBER
1	1	90 01.01.22	31.03.22	1
2	2	90 01.01.22	31.03.22	1
3	3	90 01.01.22	31.03.22	1
4	4	90 01.01.22	31.03.22	1
5	5	90 01.01.22	31.03.22	1
6	6	90 01.01.22	31.03.22	1
7	7	90 01.01.22	31.03.22	1
8	8	90 01.01.22	31.03.22	1
9	9	90 01.01.22	31.03.22	1
10	10	90 01.01.22	31.03.22	1
11	11	90 01.01.22	31.03.22	1
12	12	90 01.01.22	31.03.22	1
13	13	90 01.01.22	31.03.22	1
14	14	90 01.01.22	31.03.22	1
15	15	90 01.01.22	31.03.22	1
16	16	90 01.01.22	31.03.22	1
17	17	90 01.01.22	31.03.22	1
18	18	90 01.01.22	31.03.22	1

Oracle SQL Developer: C:\Users\Dmitry\AppData\Roaming\SQL Developer\mywork\oracletab\lab7\dw_ext_references\tables\t_years-ints.sql

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SQL Worksheet: History

Worksheet Query Builder

```

16  alter session set current_schema= dw_references;
17  SELECT * FROM t_years;

```

Script Output x Query Result x

SQL | Fetched 50 rows in 0.074 seconds

YEAR_ID	DAYS_IN_CAL_YEAR	BEG_OF_CAL_YEAR	END_OF_CAL_YEAR	CALENDAR_YEAR
1	1	364 01.01.22	31.12.22	2022
2	2	364 01.01.22	31.12.22	2022
3	3	364 01.01.22	31.12.22	2022
4	4	364 01.01.22	31.12.22	2022
5	5	364 01.01.22	31.12.22	2022
6	6	364 01.01.22	31.12.22	2022
7	7	364 01.01.22	31.12.22	2022
8	8	364 01.01.22	31.12.22	2022
9	9	364 01.01.22	31.12.22	2022
10	10	364 01.01.22	31.12.22	2022
11	11	364 01.01.22	31.12.22	2022
12	12	364 01.01.22	31.12.22	2022
13	13	364 01.01.22	31.12.22	2022
14	14	364 01.01.22	31.12.22	2022
15	15	364 01.01.22	31.12.22	2022
16	16	364 01.01.22	31.12.22	2022
17	17	364 01.01.22	31.12.22	2022
18	18	364 01.01.22	31.12.22	2022
19	19	364 01.01.22	31.12.22	2022
20	20	364 01.01.22	31.12.22	2022
21	21	364 01.01.22	31.12.22	2022
22	22	364 01.01.22	31.12.22	2022
23	23	364 01.01.22	31.12.22	2022
24	24	364 01.01.22	31.12.22	2022