U1M6.LW.Star Schema Basics Part 1

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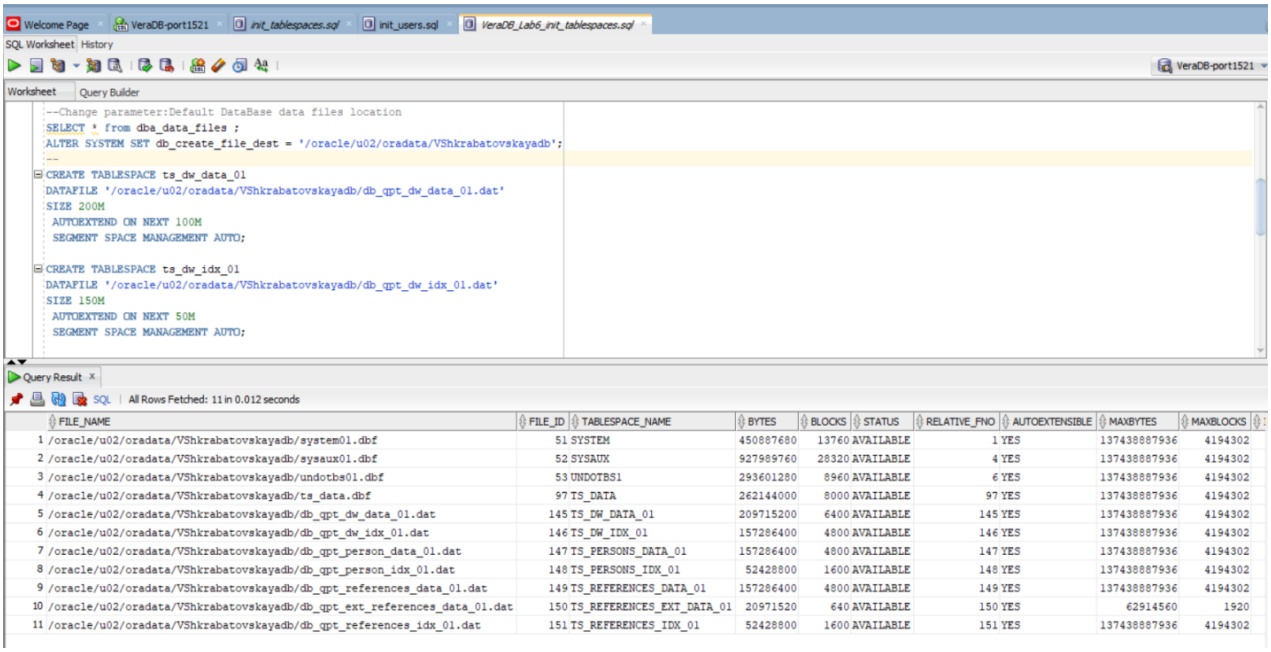
https://github.com/VeraShkrabatouskaya/DataMola_Data-Camping-2022

2. OLTP – Load External References – Normalization of Data

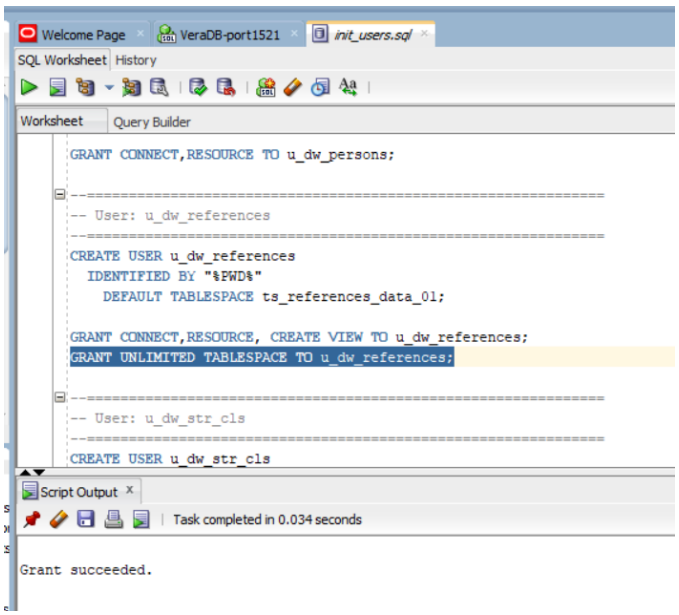
2.1. Task 01 – Install and expand load of external references T_Languages

Step1: Create TABLESPACE

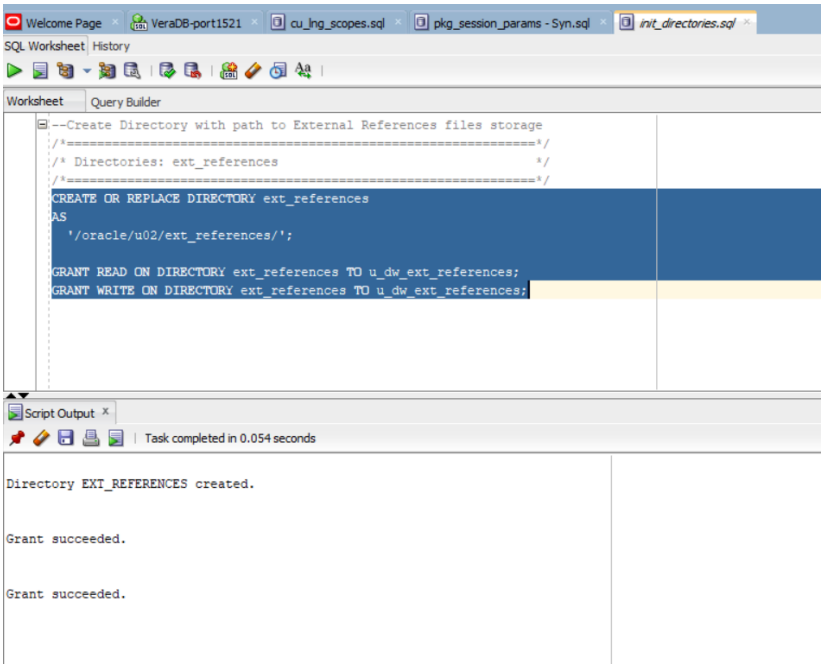


	FILE_NAME	FILE_ID	TABLESPACE_NAME	BYTES	BLOCKS	STATUS	RELATIVE_FNO	AUTOEXTENSIBLE	MAXBYTES	MAXBLOCKS
1	/oracle/u02/oradata/VShkrabatovskayadb/system01.dbf	51	SYSTEM	450887680	13760	AVAILABLE	1	YES	137438887936	4194302
2	/oracle/u02/oradata/VShkrabatovskayadb/sysaux01.dbf	52	SYSAUX	927989760	28320	AVAILABLE	4	YES	137438887936	4194302
3	/oracle/u02/oradata/VShkrabatovskayadb/undotbs01.dbf	53	UNDOTBS1	293601280	8960	AVAILABLE	6	YES	137438887936	4194302
4	/oracle/u02/oradata/VShkrabatovskayadb/ts_data.dbf	97	TS_DATA	262144000	8000	AVAILABLE	97	YES	137438887936	4194302
5	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_dw_data_01.dat	145	TS_DW_DATA_01	209715200	6400	AVAILABLE	145	YES	137438887936	4194302
6	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_dw_idx_01.dat	146	TS_DW_IDX_01	157286400	4800	AVAILABLE	146	YES	137438887936	4194302
7	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_person_data_01.dat	147	TS_PERSONS_DATA_01	157286400	4800	AVAILABLE	147	YES	137438887936	4194302
8	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_person_idx_01.dat	148	TS_PERSONS_IDX_01	52428800	1600	AVAILABLE	148	YES	137438887936	4194302
9	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_references_data_01.dat	149	TS_REFERENCES_DATA_01	157286400	4800	AVAILABLE	149	YES	137438887936	4194302
10	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_ext_references_data_01.dat	150	TS_REFERENCES_EXT_DATA_01	20971520	640	AVAILABLE	150	YES	62914560	1920
11	/oracle/u02/oradata/VShkrabatovskayadb/db_qpt_references_idx_01.dat	151	TS_REFERENCES_IDX_01	52428800	1600	AVAILABLE	151	YES	137438887936	4194302

Step2: Create USERS and provide grant unlimited tablespace



Step3: Change DIRECTORY



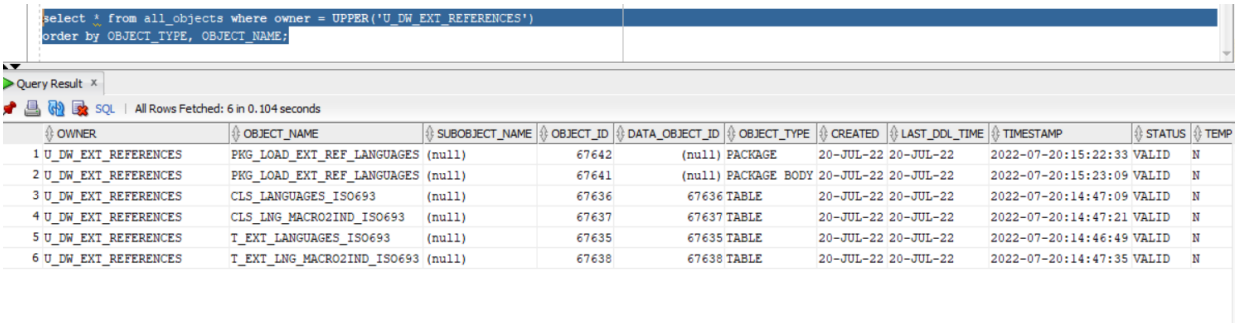
Step4: Installing scripts

/u_dw_ext_references	Cleansing store for External References
/u_dw_references	Store of DB references objects
/u_dw_common	Store common used objects

Task Results:

Let's look at all the objects created

select * from all_objects where owner = UPPER('U_DW_EXT_REFERENCES')
order by OBJECT_TYPE, OBJECT_NAME;



	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMP
1	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_LANGUAGES	(null)	67642	(null)	PACKAGE	20-JUL-22	20-JUL-22	2022-07-20:15:22:33	VALID	N
2	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_LANGUAGES	(null)	67641	(null)	PACKAGE BODY	20-JUL-22	20-JUL-22	2022-07-20:15:23:09	VALID	N
3	U_DW_EXT_REFERENCES	CLS_LANGUAGES_ISO693	(null)	67636	67636	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:09	VALID	N
4	U_DW_EXT_REFERENCES	CLS_LNG_MACRO2IND_ISO693	(null)	67637	67637	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:21	VALID	N
5	U_DW_EXT_REFERENCES	T_EXT_LANGUAGES_ISO693	(null)	67635	67635	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:46:49	VALID	N
6	U_DW_EXT_REFERENCES	T_EXT_LNG_MACRO2IND_ISO693	(null)	67638	67638	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:35	VALID	N

```
select * from all_objects where owner = UPPER('U_DW_REFERENCES')
order by OBJECT_TYPE, OBJECT_NAME;
```

Query Result — All Rows Fetched: 38 in 0.046 seconds

	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMPORARY
1	U_DW_REFERENCES	IDX_LNG_3C_CODE	(null)	67515	(null)	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
2	U_DW_REFERENCES	PK_LC_LNG_SCOPES	(null)	67527	67527	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:02:25	VALID	N
3	U_DW_REFERENCES	PK_LC_LNG_TYPES	(null)	67531	67531	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:03:52	VALID	N
4	U_DW_REFERENCES	PK_T_LANGUAGES	(null)	67512	67512	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:48:06	VALID	N
5	U_DW_REFERENCES	PK_T_LNG_LINKS	(null)	67524	(null)	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:01:00	VALID	N
6	U_DW_REFERENCES	PK_T_LNG_SCOPES	(null)	67514	67514	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:54:14	VALID	N
7	U_DW_REFERENCES	PK_T_LNG_TYPES	(null)	67521	67521	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:57:21	VALID	N
8	U_DW_REFERENCES	PK_T_LOCALIZATIONS	(null)	67529	67529	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:03:08	VALID	N
9	U_DW_REFERENCES	IDX_LNG_3C_CODE	P_MACROLANGUAGE	67517	67517	INDEX PARTITION	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
10	U_DW_REFERENCES	IDX_LNG_3C_CODE	P_SPECIAL	67518	67518	INDEX PARTITION	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
11	U_DW_REFERENCES	IDX_LNG_3C_CODE	P_OTHERS	67519	67519	INDEX PARTITION	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
12	U_DW_REFERENCES	IDX_LNG_3C_CODE	P_INDIVIDUAL	67516	67516	INDEX PARTITION	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
13	U_DW_REFERENCES	PK_T_LNG_LINKS	P_MACRO2INDIVID	67525	67525	INDEX PARTITION	19-JUL-22	19-JUL-22	2022-07-19:14:01:00	VALID	N
14	U_DW_REFERENCES	SQ_LANGUAGES_T_ID	(null)	67534	(null)	SEQUENCE	19-JUL-22	19-JUL-22	2022-07-19:14:05:37	VALID	N
15	U_DW_REFERENCES	SQ_LNG_SCOPES_T_ID	(null)	67540	(null)	SEQUENCE	19-JUL-22	19-JUL-22	2022-07-19:14:16:17	VALID	N
16	U_DW_REFERENCES	SQ_LNG_TYPES_T_ID	(null)	67541	(null)	SEQUENCE	19-JUL-22	19-JUL-22	2022-07-19:14:18:07	VALID	N
17	U_DW_REFERENCES	LC_LNG_SCOPES	(null)	67526	67526	TABLE	19-JUL-22	19-JUL-22	2022-07-19:14:02:25	VALID	N
18	U_DW_REFERENCES	LC_LNG_TYPES	(null)	67530	67530	TABLE	19-JUL-22	19-JUL-22	2022-07-19:14:03:52	VALID	N
19	U_DW_REFERENCES	T_LANGUAGES	(null)	67507	(null)	TABLE	19-JUL-22	19-JUL-22	2022-07-19:13:48:06	VALID	N
20	U_DW_REFERENCES	T_LNG_LINKS	(null)	67522	(null)	TABLE	19-JUL-22	19-JUL-22	2022-07-19:14:01:00	VALID	N
21	U_DW_REFERENCES	T_LNG_SCOPES	(null)	67513	(null)	TABLE	19-JUL-22	19-JUL-22	2022-07-19:13:54:14	VALID	N
22	U_DW_REFERENCES	T_LNG_TYPES	(null)	67520	(null)	TABLE	19-JUL-22	19-JUL-22	2022-07-19:13:57:21	VALID	N
23	U_DW_REFERENCES	T_LOCALIZATIONS	(null)	67528	67528	TABLE	19-JUL-22	19-JUL-22	2022-07-19:14:03:08	VALID	N

```
select * from all_objects where owner = UPPER('U_DW_COMMON')
order by OBJECT_TYPE, OBJECT_NAME;
```

Query Result — All Rows Fetched: 2 in 0.105 seconds

	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMPORARY	GENERATED	SEC
1	U_DW_COMMON	PKG_SESSION_PARAMS	(null)	67544	(null)	PACKAGE	19-JUL-22	21-JUL-22	2022-07-21:00:18:54	VALID	N	N	N
2	U_DW_COMMON	PKG_SESSION_PARAMS	(null)	67545	(null)	PACKAGE BODY	19-JUL-22	21-JUL-22	2022-07-21:01:29:56	VALID	N	N	N

The following Tables and Views were created.

```
SELECT TABLE_NAME, OWNER
FROM SYS.ALL_TABLES
WHERE OWNER IN ('U_DW_EXT_REFERENCES', 'U_DW_REFERENCES', 'U_DW_COMMON')
UNION ALL
SELECT VIEW_NAME, OWNER
FROM SYS.ALL_VIEWS
WHERE OWNER IN ('U_DW_EXT_REFERENCES', 'U_DW_REFERENCES', 'U_DW_COMMON')
ORDER BY 2;
```

Query Result — All Rows Fetched: 21 in 0.611 seconds

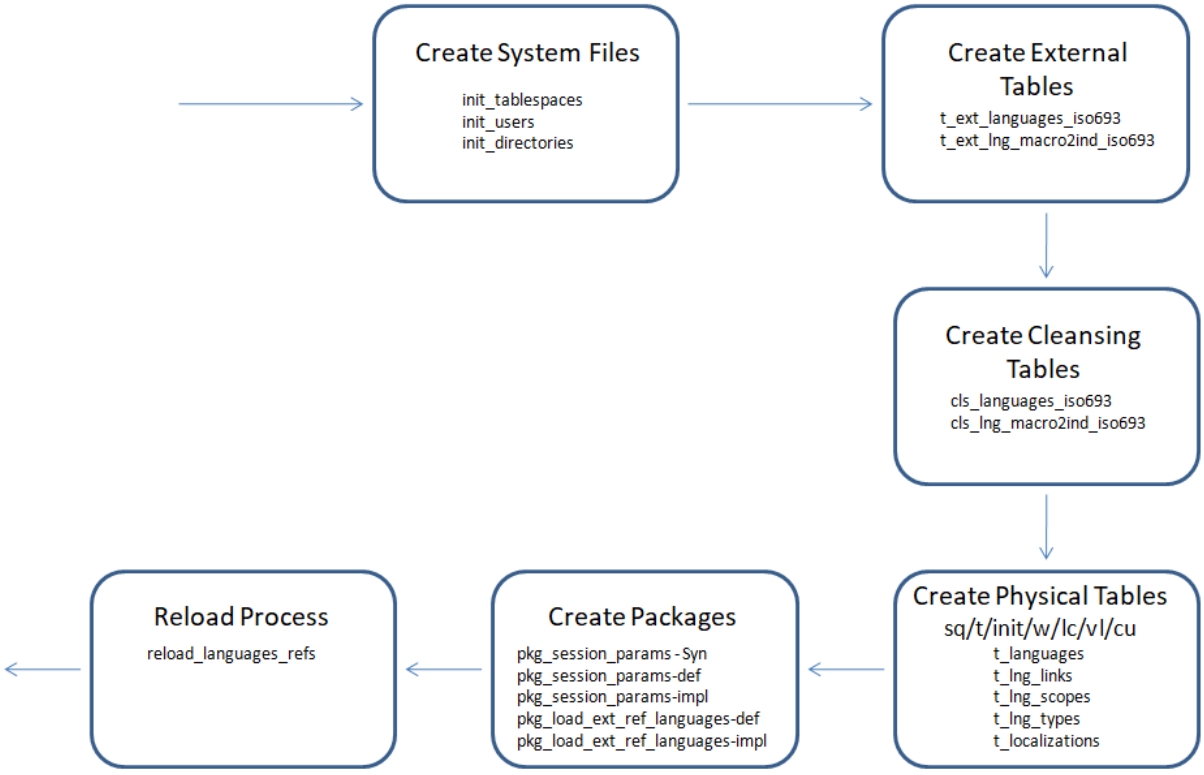
	TABLE_NAME	OWNER
1	T_EXT_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
2	T_EXT_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
3	CLS_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
4	CLS_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
5	T_LNG_TYPES	U_DW_REFERENCES
6	CU_LNG_TYPES	U_DW_REFERENCES

Query Result

SQL | All Rows Fetched: 21 in 0.611 seconds

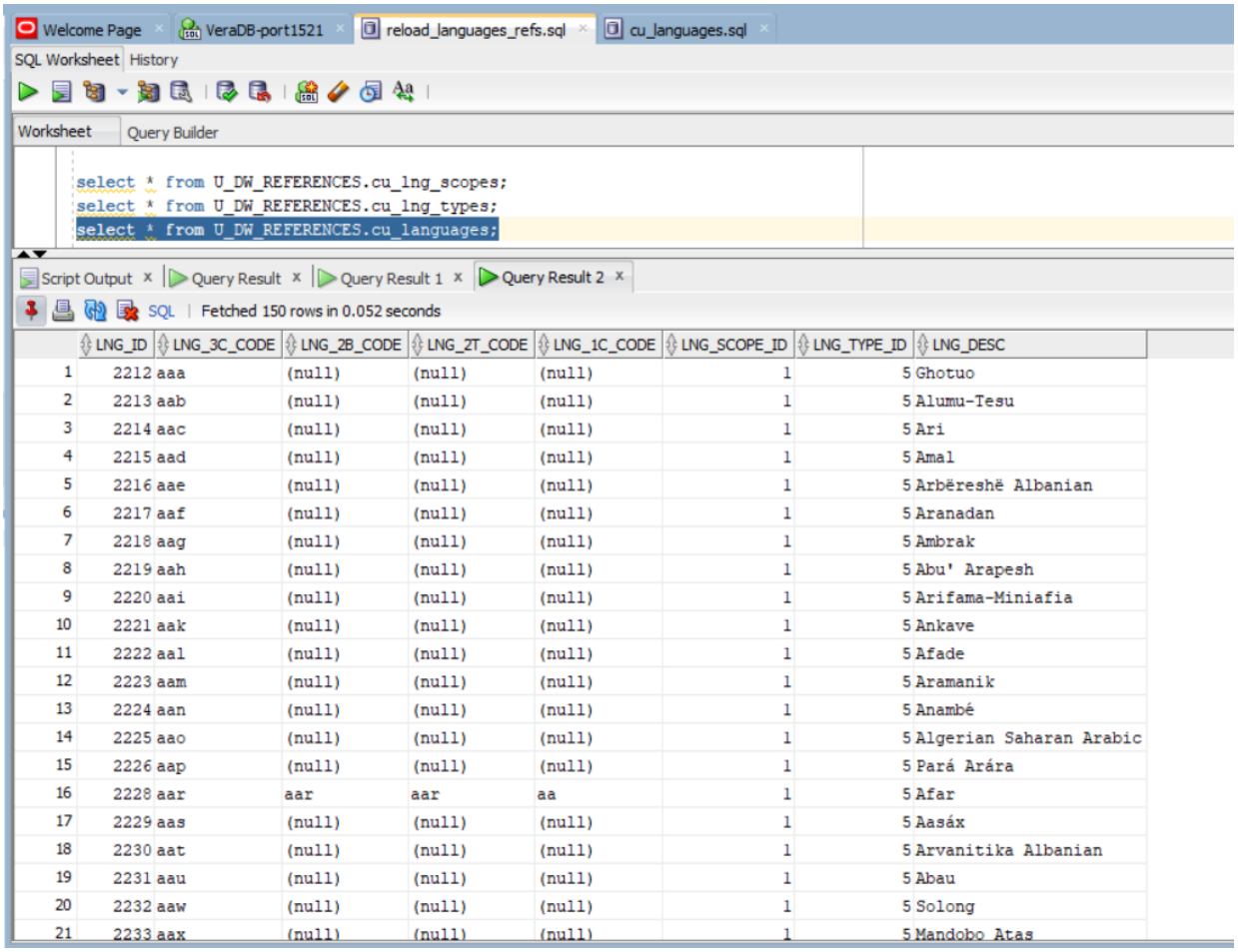
	TABLE_NAME	OWNER
1	T_EXT_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
2	T_EXT_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
3	CLS_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
4	CLS_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
5	T_LNG_TYPES	U_DW_REFERENCES
6	CU_LNG_TYPES	U_DW_REFERENCES
7	LC_LNG_SCOPES	U_DW_REFERENCES
8	T_LOCALIZATIONS	U_DW_REFERENCES
9	LC_LNG_TYPES	U_DW_REFERENCES
10	W_LOCALIZATIONS	U_DW_REFERENCES
11	CU_LNG_SCOPES	U_DW_REFERENCES
12	CU_LANGUAGES	U_DW_REFERENCES
13	W_LANGUAGES	U_DW_REFERENCES
14	W_LNG_LINKS	U_DW_REFERENCES
15	W_LNG_SCOPES	U_DW_REFERENCES
16	VL_LNG_SCOPES	U_DW_REFERENCES
17	W_LNG_TYPES	U_DW_REFERENCES
18	VL_LNG_TYPES	U_DW_REFERENCES
19	T_LNG_SCOPES	U_DW_REFERENCES
20	T_LANGUAGES	U_DW_REFERENCES
21	T_LNG_LINKS	U_DW_REFERENCES

DataFlow: Sketch Diagram of loading external References



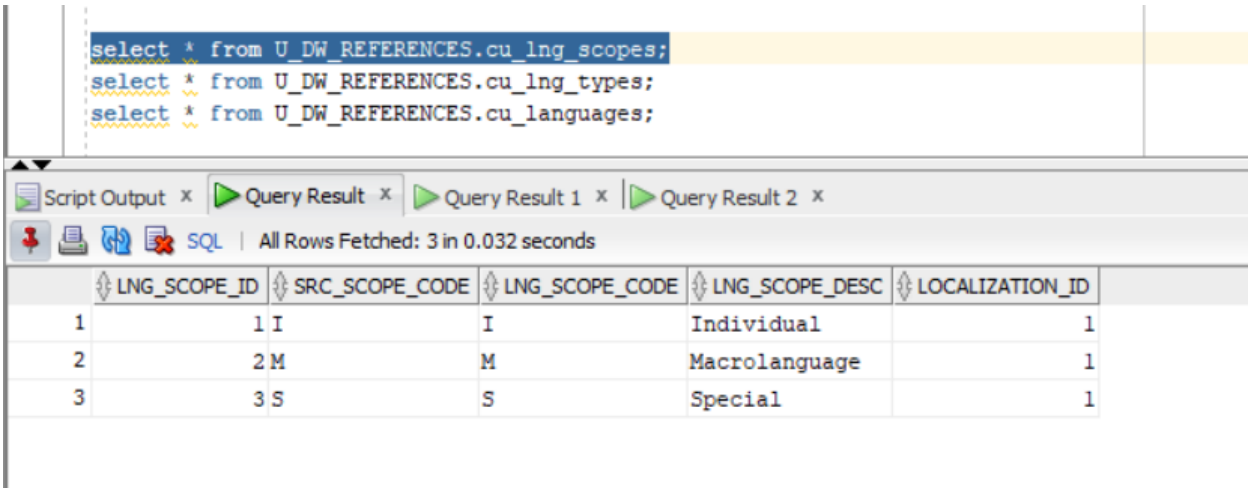
Showing result of data on next objects:

- cu_languages



	LNG_ID	LNG_3C_CODE	LNG_2B_CODE	LNG_2T_CODE	LNG_1C_CODE	LNG_SCOPE_ID	LNG_TYPE_ID	LNG_DESC
1	2212	aaa	(null)	(null)	(null)	1	5	Ghotuo
2	2213	aab	(null)	(null)	(null)	1	5	Alumu-Tesu
3	2214	aac	(null)	(null)	(null)	1	5	Ari
4	2215	aad	(null)	(null)	(null)	1	5	Amal
5	2216	aae	(null)	(null)	(null)	1	5	Arbëreshë Albanian
6	2217	aaf	(null)	(null)	(null)	1	5	Aranadan
7	2218	aag	(null)	(null)	(null)	1	5	Ambrak
8	2219	aah	(null)	(null)	(null)	1	5	Abu' Arapesh
9	2220	aai	(null)	(null)	(null)	1	5	Arifama-Miniafia
10	2221	aak	(null)	(null)	(null)	1	5	Ankave
11	2222	aal	(null)	(null)	(null)	1	5	Afade
12	2223	aam	(null)	(null)	(null)	1	5	Aramanik
13	2224	aan	(null)	(null)	(null)	1	5	Anambé
14	2225	aao	(null)	(null)	(null)	1	5	Algerian Saharan Arabic
15	2226	aap	(null)	(null)	(null)	1	5	Pará Arára
16	2228	aar	aar	aar	aa	1	5	Afar
17	2229	aas	(null)	(null)	(null)	1	5	Aasáx
18	2230	aat	(null)	(null)	(null)	1	5	Arvanitika Albanian
19	2231	aau	(null)	(null)	(null)	1	5	Abau
20	2232	aaw	(null)	(null)	(null)	1	5	Solong
21	2233	aax	(null)	(null)	(null)	1	5	Mandobo Atas

- cu_lng_scopes



	LNG_SCOPE_ID	SRC_SCOPE_CODE	LNG_SCOPE_CODE	LNG_SCOPE_DESC	LOCALIZATION_ID
1	1	I	I	Individual	1
2	2	M	M	Macrolanguage	1
3	3	S	S	Special	1

- cu_lng_types

```
select * from U_DW_REFERENCES.cu_lng_scopes;
select * from U_DW_REFERENCES.cu_lng_types;
select * from U_DW_REFERENCES.cu_languages;
```

Script Output | Query Result | Query Result 1 | Query Result 2

SQL | All Rows Fetched: 6 in 0.018 seconds

	LNG_TYPE_ID	SRC_TYPE_CODE	LNG_TYPE_CODE	LNG_TYPE_DESC	LOCALIZATION_ID
1	1	A	A	Ancient	1
2	2	C	C	Constructed	1
3	3	E	E	Extinct	1
4	4	H	H	Historical	1
5	5	L	L	Living	1
6	6	S	S	Special	1

- w_lng_links

```
select * from u_dw_references.w_lng_links;
```

Query Result

SQL | All Rows Fetched: 0 in 0.015 seconds

PARENT_...	CHILD_LN...	LINK_TYP...

- t_localizations

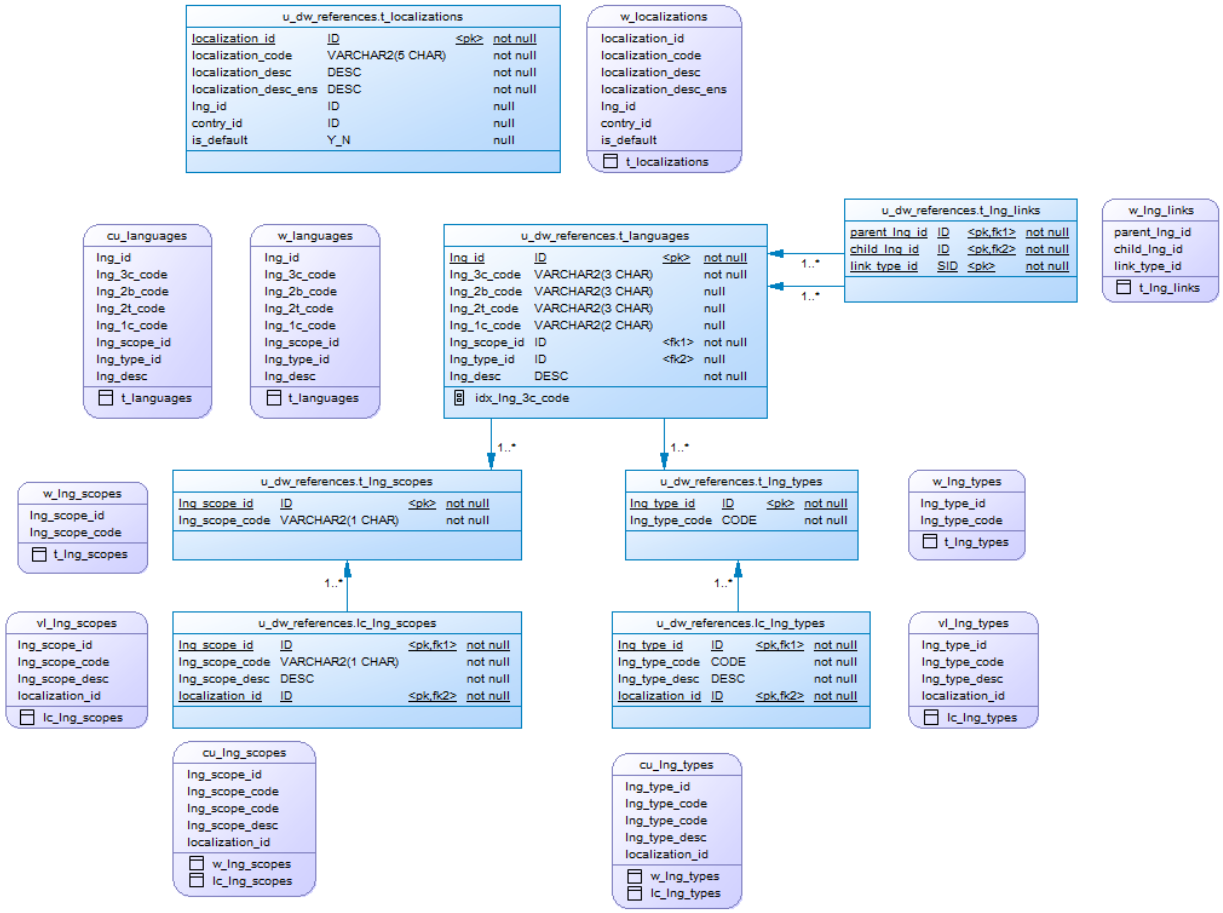
```
select * from u_dw_references.t_localizations;
```

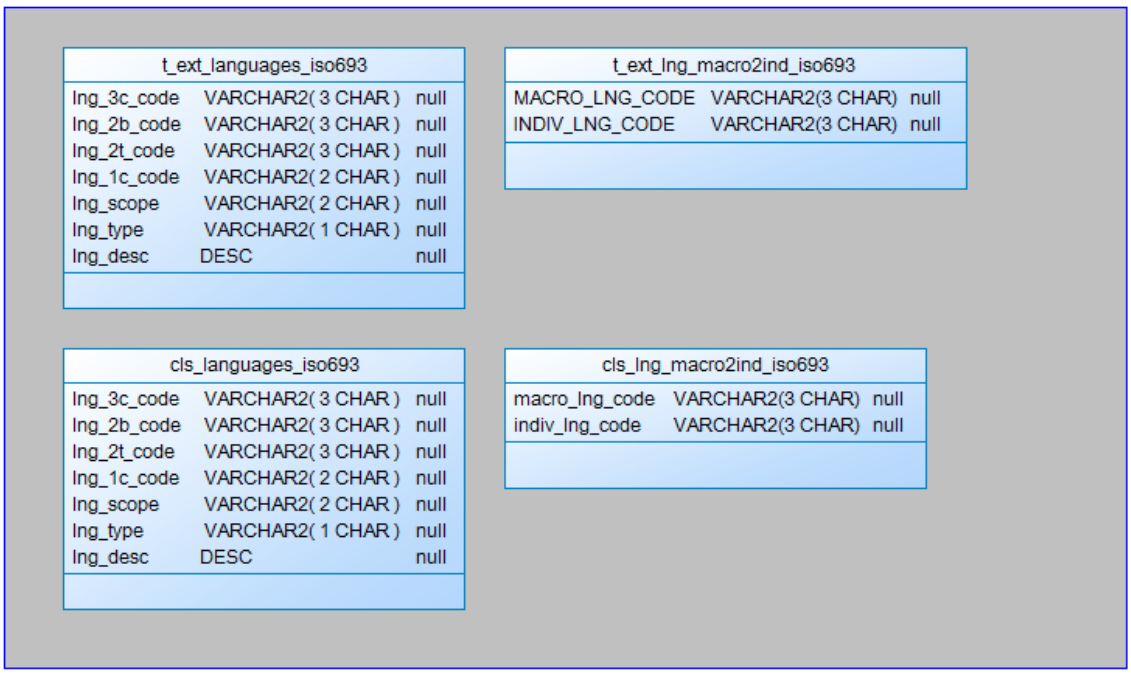
Query Result

SQL | All Rows Fetched: 5 in 0.004 seconds

	LOCALIZATION_ID	LOCALIZATION_CODE	LOCALIZATION_DESC	LOCALIZATION_DESC_ENS	LNG_ID	CONTRY_ID	IS_DEFAULT
1	-1	n.a.	Not Available	Not Available	(null)	(null)	(null)
2	-2	n.d.	Not Defined	Not Defined	(null)	(null)	(null)
3	1	en-US	English	English	(null)	(null)	1
4	2	ru-RU	Russian	Русский	(null)	(null)	(null)
5	3	be-BY	Belarussian	Беларускі	(null)	(null)	(null)

The Physical Diagram of T_Languages below:

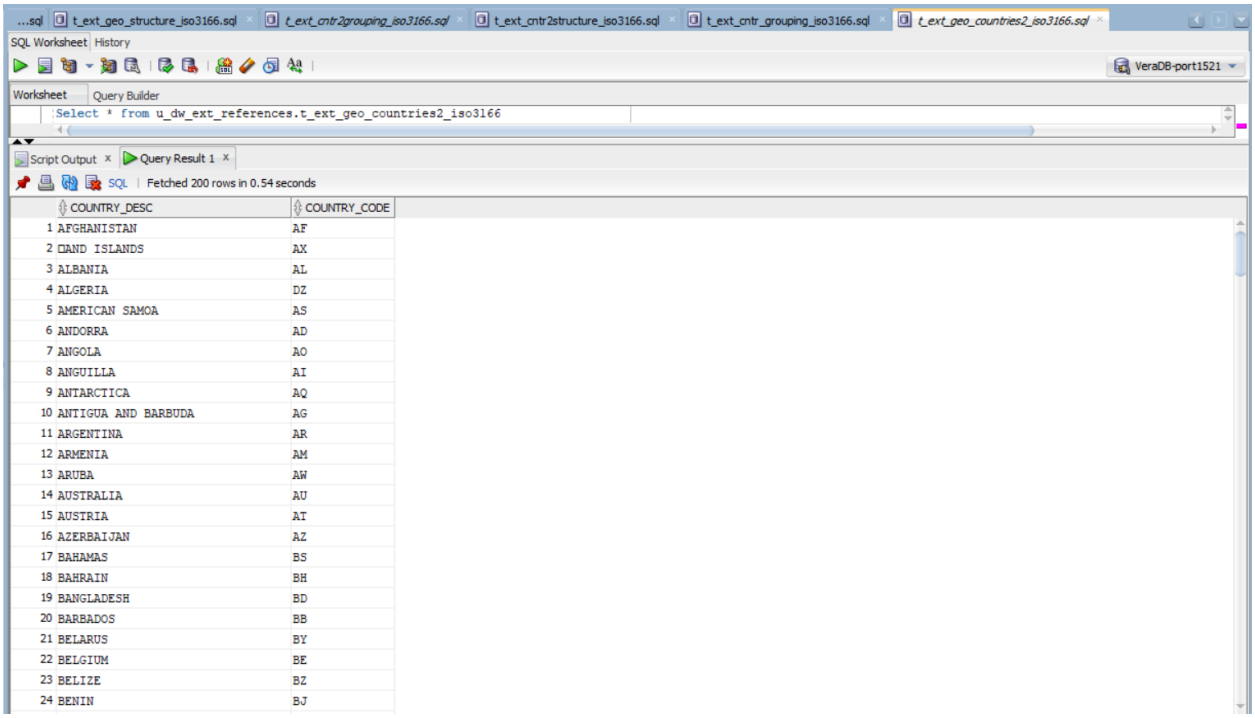




2.2. Task 02 – Create load process for External references T_Countries

Task Results:

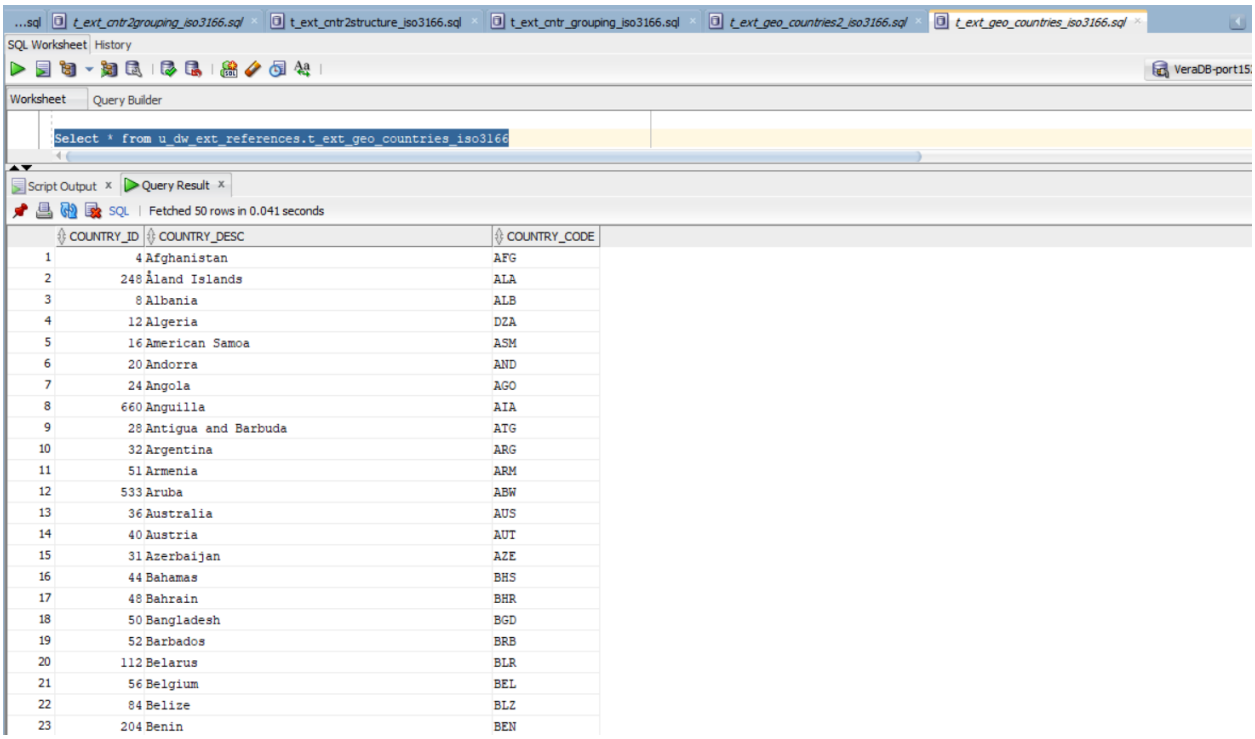
Running file scripts from u_dw_ext_references to create external tables



```
Select * from u_dw_ext_references.t_ext_geo_countries2_iso3166
```

Fetched 200 rows in 0.54 seconds

	COUNTRY_DESC	COUNTRY_CODE
1	AFGHANISTAN	AF
2	□AND ISLANDS	AX
3	ALBANIA	AL
4	ALGERIA	DZ
5	AMERICAN SAMOA	AS
6	ANDORRA	AD
7	ANGOLA	AO
8	ANGUILLA	AI
9	ANTARCTICA	AQ
10	ANTIGUA AND BARBUDA	AG
11	ARGENTINA	AR
12	ARMENIA	AM
13	ARUBA	AW
14	AUSTRALIA	AU
15	AUSTRIA	AT
16	AZERBAIJAN	AZ
17	BAHAMAS	BS
18	BAHRAIN	BH
19	BANGLADESH	BD
20	BARBADOS	BB
21	BELARUS	BY
22	BELGIUM	BE
23	BELIZE	BZ
24	BENIN	BJ



```
Select * from u_dw_ext_references.t_ext_geo_countries_iso3166
```

Fetched 50 rows in 0.041 seconds

	COUNTRY_ID	COUNTRY_DESC	COUNTRY_CODE
1	4	Afghanistan	AFG
2	248	Åland Islands	ALA
3	8	Albania	ALB
4	12	Algeria	DZA
5	16	American Samoa	ASM
6	20	Andorra	AND
7	24	Angola	AGO
8	660	Anguilla	AIA
9	28	Antigua and Barbuda	ATG
10	32	Argentina	ARG
11	51	Armenia	ARM
12	533	Aruba	ABW
13	36	Australia	AUS
14	40	Austria	AUT
15	31	Azerbaijan	AZE
16	44	Bahamas	BHS
17	48	Bahrain	BHR
18	50	Bangladesh	BGD
19	52	Barbados	BRB
20	112	Belarus	BLR
21	56	Belgium	BEL
22	84	Belize	BLZ
23	204	Benin	BEN

Running file scripts from u_dw_references to create internal tables

```
Select * from u_dw_references.w_geo_types;
```

Script Output | Query Result

SQL | All Rows Fetched: 7 in 0.008 seconds

	GEO_TYPE_ID	GEO_TYPE_CODE	GEO_TYPE_DESC
1	2	GEO SYSTEM	System of Specification
2	10	CONTINENT	Referene: List of All Continets
3	11	REGIONS	Referene: List of All Continets - Regions
4	12	COUNTRY	Referene: List of All Countries
5	50	GROUP SYSTEM	Grouping system of specification countries
6	51	COUNTRY GROUP	Referene: List of All Countries Groups
7	52	COUNTRY SUB GROUP	Referene: List of All Countries Sub Groups

Let's look at all the objects created

select * from all_objects where owner = UPPER('U_DW_EXT_REFERENCES')
order by OBJECT_TYPE, OBJECT_NAME;

Welcome Page | VeraDB-port1521 | Lab6_task2_results.sql

SQL Worksheet | History

VeraDB-port1521

Worksheet | Query Builder

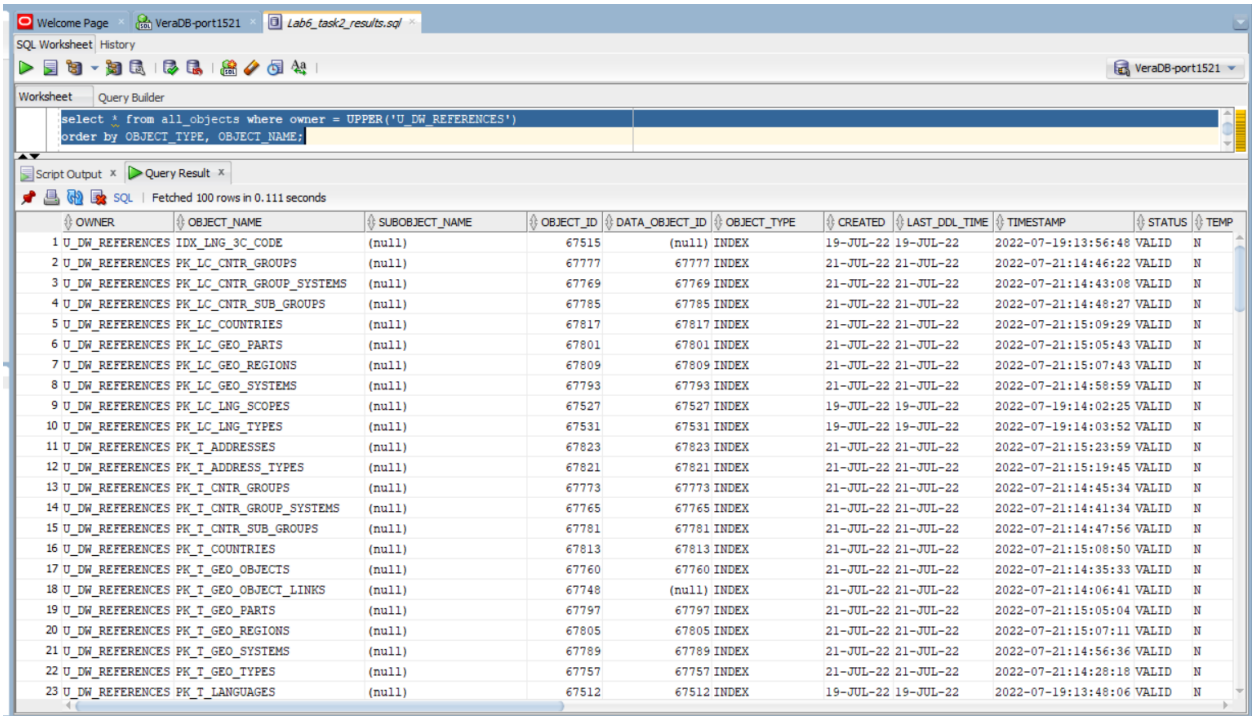
```
select * from all_objects where owner = UPPER('U_DW_EXT_REFERENCES')
order by OBJECT_TYPE, OBJECT_NAME;
```

Script Output | Query Result

SQL | All Rows Fetched: 20 in 0.107 seconds

	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMPORAR
1	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_GEOGRAPHY	(null)	67826	(null)	PACKAGE	21-JUL-22	21-JUL-22	2022-07-21:15:27:07	VALID	N
2	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_LANGUAGES	(null)	67642	(null)	PACKAGE	20-JUL-22	20-JUL-22	2022-07-20:15:22:33	VALID	N
3	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_GEOGRAPHY	(null)	67827	(null)	PACKAGE BODY	21-JUL-22	21-JUL-22	2022-07-21:15:27:48	VALID	N
4	U_DW_EXT_REFERENCES	PKG_LOAD_EXT_REF_LANGUAGES	(null)	67641	(null)	PACKAGE BODY	20-JUL-22	20-JUL-22	2022-07-20:15:23:09	VALID	N
5	U_DW_EXT_REFERENCES	CLS_CNTR2GROUPING_ISO3166	(null)	67733	67839	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:49:13	VALID	N
6	U_DW_EXT_REFERENCES	CLS_CNTR2STRUCTURE_ISO3166	(null)	67734	67837	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:50:11	VALID	N
7	U_DW_EXT_REFERENCES	CLS_CNTR_GROUPING_ISO3166	(null)	67735	67838	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:50:42	VALID	N
8	U_DW_EXT_REFERENCES	CLS_GEO_COUNTRIES2_ISO3166	(null)	67736	67835	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:51:13	VALID	N
9	U_DW_EXT_REFERENCES	CLS_GEO_COUNTRIES_ISO3166	(null)	67737	67834	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:52:03	VALID	N
10	U_DW_EXT_REFERENCES	CLS_GEO_STRUCTURE_ISO3166	(null)	67738	67836	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:52:38	VALID	N
11	U_DW_EXT_REFERENCES	CLS_LANGUAGES_ISO693	(null)	67636	67636	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:09	VALID	N
12	U_DW_EXT_REFERENCES	CLS_LNG_MACRO2IND_ISO693	(null)	67637	67637	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:21	VALID	N
13	U_DW_EXT_REFERENCES	T_EXT_CNTR2GROUPING_ISO3166	(null)	67727	67727	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:38:14	VALID	N
14	U_DW_EXT_REFERENCES	T_EXT_CNTR2STRUCTURE_ISO3166	(null)	67729	67729	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:42:50	VALID	N
15	U_DW_EXT_REFERENCES	T_EXT_CNTR_GROUPING_ISO3166	(null)	67730	67730	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:43:18	VALID	N
16	U_DW_EXT_REFERENCES	T_EXT_GEO_COUNTRIES2_ISO3166	(null)	67731	67731	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:43:38	VALID	N
17	U_DW_EXT_REFERENCES	T_EXT_GEO_COUNTRIES_ISO3166	(null)	67732	67732	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:46:38	VALID	N
18	U_DW_EXT_REFERENCES	T_EXT_GEO_STRUCTURE_ISO3166	(null)	67728	67728	TABLE	21-JUL-22	21-JUL-22	2022-07-21:13:40:27	VALID	N
19	U_DW_EXT_REFERENCES	T_EXT_LANGUAGES_ISO693	(null)	67635	67635	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:46:49	VALID	N
20	U_DW_EXT_REFERENCES	T_EXT_LNG_MACRO2IND_ISO693	(null)	67638	67638	TABLE	20-JUL-22	20-JUL-22	2022-07-20:14:47:35	VALID	N

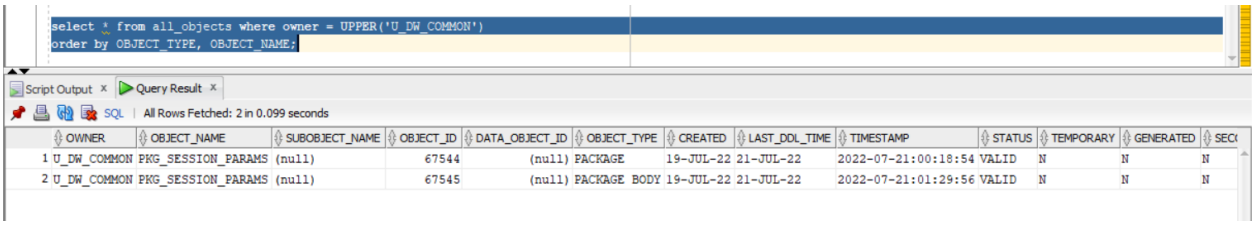
```
select * from all_objects where owner = UPPER('U_DW_REFERENCES')
order by OBJECT_TYPE, OBJECT_NAME;
```



Fetched 100 rows in 0.111 seconds

	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMP
1	U_DW_REFERENCES	IDX_LNG_3C_CODE	(null)	67515	(null)	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:56:48	VALID	N
2	U_DW_REFERENCES	PK_LC_CNTR_GROUPS	(null)	67777	67777	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:46:22	VALID	N
3	U_DW_REFERENCES	PK_LC_CNTR_GROUP_SYSTEMS	(null)	67769	67769	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:43:08	VALID	N
4	U_DW_REFERENCES	PK_LC_CNTR_SUB_GROUPS	(null)	67785	67785	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:48:27	VALID	N
5	U_DW_REFERENCES	PK_LC_COUNTRIES	(null)	67817	67817	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:09:29	VALID	N
6	U_DW_REFERENCES	PK_LC_GEO_PARTS	(null)	67801	67801	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:05:43	VALID	N
7	U_DW_REFERENCES	PK_LC_GEO_REGIONS	(null)	67809	67809	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:07:43	VALID	N
8	U_DW_REFERENCES	PK_LC_GEO_SYSTEMS	(null)	67793	67793	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:58:59	VALID	N
9	U_DW_REFERENCES	PK_LC_LNG_SCOPES	(null)	67527	67527	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:02:25	VALID	N
10	U_DW_REFERENCES	PK_LC_LNG_TYPES	(null)	67531	67531	INDEX	19-JUL-22	19-JUL-22	2022-07-19:14:03:52	VALID	N
11	U_DW_REFERENCES	PK_T_ADDRESSES	(null)	67823	67823	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:23:59	VALID	N
12	U_DW_REFERENCES	PK_T_ADDRESS_TYPES	(null)	67821	67821	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:19:45	VALID	N
13	U_DW_REFERENCES	PK_T_CNTR_GROUPS	(null)	67773	67773	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:45:34	VALID	N
14	U_DW_REFERENCES	PK_T_CNTR_GROUP_SYSTEMS	(null)	67765	67765	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:41:34	VALID	N
15	U_DW_REFERENCES	PK_T_CNTR_SUB_GROUPS	(null)	67781	67781	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:47:56	VALID	N
16	U_DW_REFERENCES	PK_T_COUNTRIES	(null)	67813	67813	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:08:50	VALID	N
17	U_DW_REFERENCES	PK_T_GEO_OBJECTS	(null)	67760	67760	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:35:33	VALID	N
18	U_DW_REFERENCES	PK_T_GEO_OBJECT_LINKS	(null)	67748	(null)	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:06:41	VALID	N
19	U_DW_REFERENCES	PK_T_GEO_PARTS	(null)	67797	67797	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:05:04	VALID	N
20	U_DW_REFERENCES	PK_T_GEO_REGIONS	(null)	67805	67805	INDEX	21-JUL-22	21-JUL-22	2022-07-21:15:07:11	VALID	N
21	U_DW_REFERENCES	PK_T_GEO_SYSTEMS	(null)	67789	67789	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:56:36	VALID	N
22	U_DW_REFERENCES	PK_T_GEO_TYPES	(null)	67757	67757	INDEX	21-JUL-22	21-JUL-22	2022-07-21:14:28:18	VALID	N
23	U_DW_REFERENCES	PK_T_LANGUAGES	(null)	67512	67512	INDEX	19-JUL-22	19-JUL-22	2022-07-19:13:48:06	VALID	N

```
select * from all_objects where owner = UPPER('U_DW_COMMON')
order by OBJECT_TYPE, OBJECT_NAME;
```

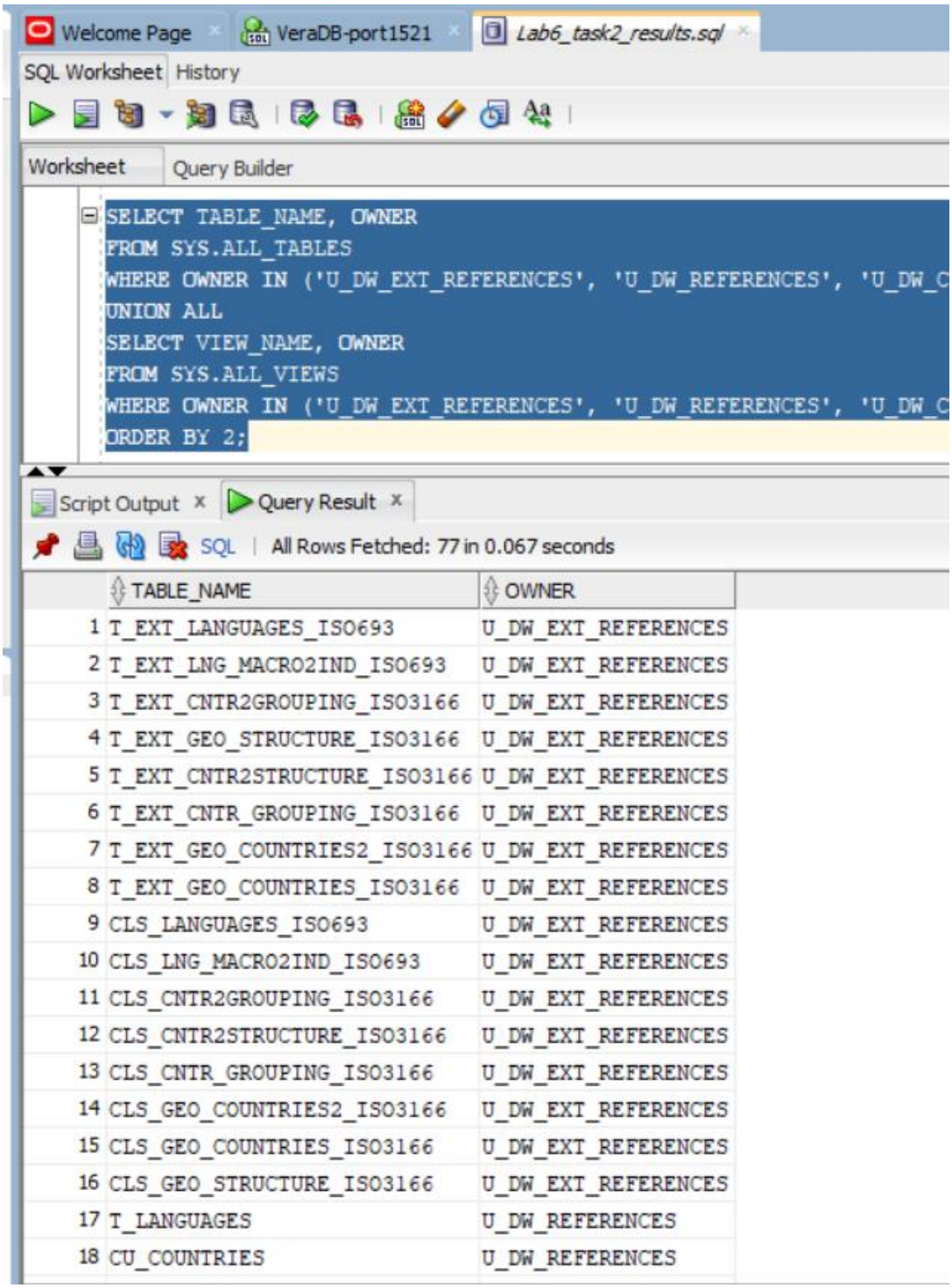


All Rows Fetched: 2 in 0.099 seconds

	OWNER	OBJECT_NAME	SUBOBJECT_NAME	OBJECT_ID	DATA_OBJECT_ID	OBJECT_TYPE	CREATED	LAST_DDL_TIME	TIMESTAMP	STATUS	TEMPORARY	GENERATED	SEC
1	U_DW_COMMON	PKG_SESSION_PARAMS	(null)	67544	(null)	PACKAGE	19-JUL-22	21-JUL-22	2022-07-21:00:18:54	VALID	N	N	N
2	U_DW_COMMON	PKG_SESSION_PARAMS	(null)	67545	(null)	PACKAGE BODY	19-JUL-22	21-JUL-22	2022-07-21:01:29:56	VALID	N	N	N

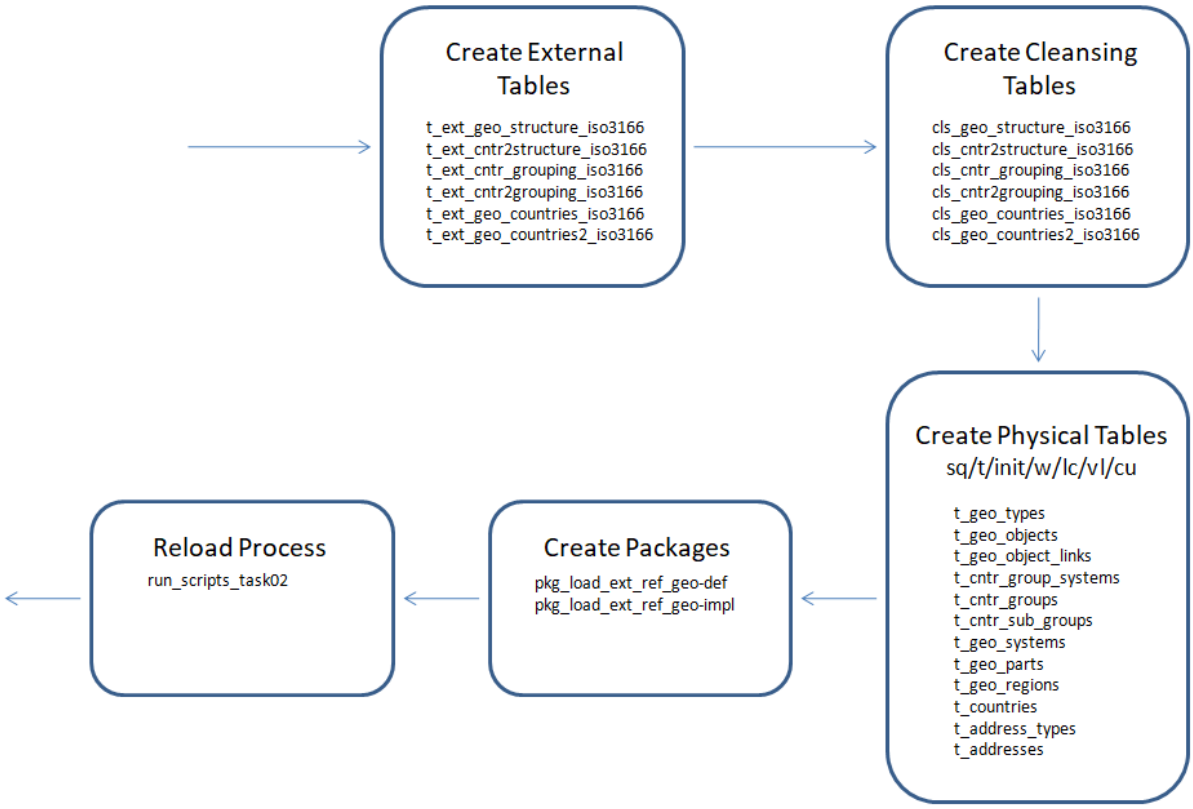
The following Tables and Views were created.

```
SELECT TABLE_NAME, OWNER
FROM SYS.ALL_TABLES
WHERE OWNER IN ('U_DW_EXT_REFERENCES', 'U_DW_REFERENCES', 'U_DW_COMMON')
UNION ALL
SELECT VIEW_NAME, OWNER
FROM SYS.ALL_VIEWS
WHERE OWNER IN ('U_DW_EXT_REFERENCES', 'U_DW_REFERENCES', 'U_DW_COMMON')
ORDER BY 2;
```



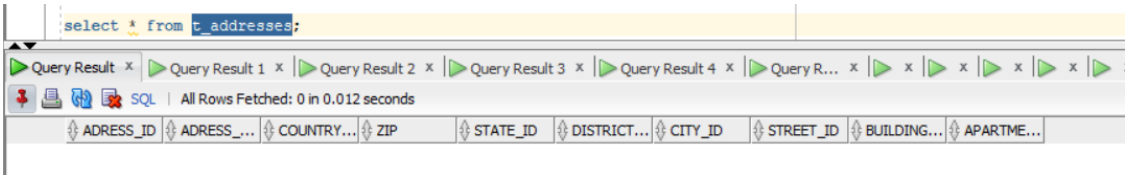
	TABLE_NAME	OWNER
1	T_EXT_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
2	T_EXT_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
3	T_EXT_CNTR2GROUPING_ISO3166	U_DW_EXT_REFERENCES
4	T_EXT_GEO_STRUCTURE_ISO3166	U_DW_EXT_REFERENCES
5	T_EXT_CNTR2STRUCTURE_ISO3166	U_DW_EXT_REFERENCES
6	T_EXT_CNTR_GROUPING_ISO3166	U_DW_EXT_REFERENCES
7	T_EXT_GEO_COUNTRIES2_ISO3166	U_DW_EXT_REFERENCES
8	T_EXT_GEO_COUNTRIES_ISO3166	U_DW_EXT_REFERENCES
9	CLS_LANGUAGES_ISO693	U_DW_EXT_REFERENCES
10	CLS_LNG_MACRO2IND_ISO693	U_DW_EXT_REFERENCES
11	CLS_CNTR2GROUPING_ISO3166	U_DW_EXT_REFERENCES
12	CLS_CNTR2STRUCTURE_ISO3166	U_DW_EXT_REFERENCES
13	CLS_CNTR_GROUPING_ISO3166	U_DW_EXT_REFERENCES
14	CLS_GEO_COUNTRIES2_ISO3166	U_DW_EXT_REFERENCES
15	CLS_GEO_COUNTRIES_ISO3166	U_DW_EXT_REFERENCES
16	CLS_GEO_STRUCTURE_ISO3166	U_DW_EXT_REFERENCES
17	T_LANGUAGES	U_DW_REFERENCES
18	CU_COUNTRIES	U_DW_REFERENCES

DataFlow: Sketch Diagram of loading external References

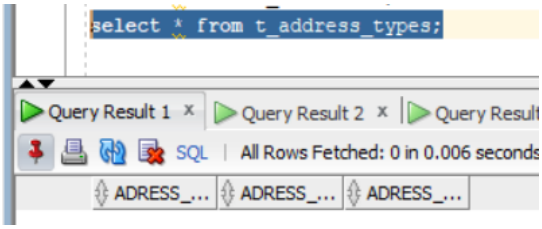


Showing result of data on main objects:

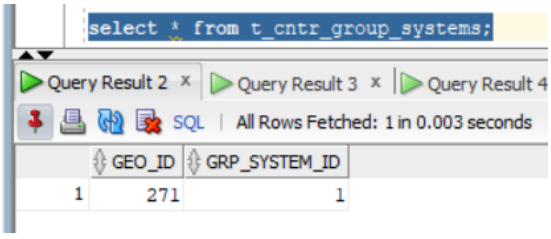
- t_addresses



- t_address_types



- t_cntr_group_systems



- lc_cntr_group_systems

```
select * from lc_cntr_group_systems;
```

Query Result 3 | Query Result 4 | Query Result 5 | Query Result 6 | Query Result 7 | Query Result 8

SQL | All Rows Fetched: 1 in 0.007 seconds

	GEO_ID	GRP_SYSTEM_ID	GRP_SYSTEM_CODE	GRP_SYSTEM_DESC	LOCALIZATION_ID
1	271	1	MAIN	Selected Economic and other groupings	1

- t_cntr_groups

```
select * from t_cntr_groups;
```

Query Result 4 | Query Result 5 | Qu

SQL | All Rows Fetched: 2 in 0.0

	GEO_ID	GROUP_ID
1	272	2
2	273	3

- lc_cntr_groups

```
select * from lc_cntr_groups;
```

Query Result 5 | Query Result 6 | Query Result 7 | Query Result 8 | Query R

SQL | All Rows Fetched: 2 in 0.005 seconds

	GEO_ID	GROUP_ID	GROUP_CODE	GROUP_DESC	LOCALIZATION_ID
1	273	3	(null)	Unions groupings	1
2	272	2	(null)	Economic groupings	1

- t_cntr_sub_groups

```
select * from t_cntr_sub_groups;
```

Query Result 6 | Query Result 7 | Query Result 8

SQL | All Rows Fetched: 8 in 0.005 seconds

	GEO_ID	SUB_GROUP_ID
1	274	204
2	275	203
3	276	302
4	277	303
5	278	202
6	279	301
7	280	201
8	281	205

- lc_cntr_sub_groups

```
select * from lc_cntr_sub_groups;
```

Query Result 7 | Query Result 8 | Query Result 9 | Query Result 10 | Query Result 11 | Query Result 12 | Query R

SQL | All Rows Fetched: 8 in 0.007 seconds

	GEO_ID	SUB_GROUP_ID	SUB_GROUP_CODE	SUB_GROUP_DESC	LOCALIZATION_ID
1	275	203	(null)	Small island developing states	1
2	274	204	(null)	Transition countries	1
3	278	202	(null)	Landlocked developing countries	1
4	281	205	(null)	Developed countries	1
5	280	201	(null)	Least developed countries	1
6	279	301	(null)	Commonwealth of Independent States	1
7	276	302	(null)	Transition countries of South-Eastern Europe	1
8	277	303	(null)	European Union	1

- t_countries

```
select * from t_countries;
```

Query Result 8 | Query Result 9 | Qu

SQL | Fetched 50 rows in 0.005 s

	GEO_ID	COUNTRY_ID
1	282	328
2	283	512
3	284	535
4	285	578
5	286	124
6	287	534
7	288	706
8	289	226
9	290	762
10	291	418
11	292	591
12	293	832
13	294	348
14	295	400
15	296	232
16	297	410
17	298	414
18	299	496
19	300	659
20	301	52
21	302	64
22	303	108
23	304	792
24	305	50

- lc_countries

```
select * from lc_countries;
```

Query Result 9 | Query Result 10 | Query Result 11 | Query Result 12 | Query Result 13 | Query Result 14 | Query Result 15

SQL | Fetched 50 rows in 0.004 seconds

	GEO_ID	COUNTRY_ID	COUNTRY_CODE_A2	COUNTRY_CODE_A3	COUNTRY_DESC	LOCALIZATION_ID
1	453	152	CL	CHL	Chile	1
2	369	450	MG	MDG	Madagascar	1
3	520	830	(null)	(null)	Channel Islands	1
4	382	408	(null)	PRK	Democratic People's Republic of Korea	1
5	284	535	BQ	BES	Bonaire, Saint Eustatius and Saba	1
6	401	188	CR	CRI	Costa Rica	1
7	337	768	TG	TGO	Togo	1
8	432	156	CN	CHN	China	1
9	370	203	CZ	CZE	Czech Republic	1
10	296	232	ER	ERI	Eritrea	1
11	429	364	IR	IRN	Iran (Islamic Republic of)	1
12	344	430	LR	LBR	Liberia	1
13	512	484	MX	MEX	Mexico	1
14	357	642	RO	ROU	Romania	1
15	426	222	SV	SLV	El Salvador	1
16	474	233	EE	EST	Estonia	1
17	319	528	NL	NLD	Netherlands	1
18	395	76	BR	BRA	Brazil	1
19	374	104	MM	MMR	Myanmar	1
20	456	630	PR	PRI	Puerto Rico	1
21	403	288	GH	GHA	Ghana	1
22	358	442	LU	LUX	Luxembourg	1
23	497	175	YT	MYT	Mayotte	1

- t_geo_object_links

```
select * from t_geo_object_links;
```

Query Result 10 | Query Result 11 | Query Result 12

SQL | Fetched 50 rows in 0.004 seconds

	PARENT_GEO_ID	CHILD_GEO_ID	LINK_TYPE_ID
1	242	243	1
2	242	244	1
3	242	245	1
4	242	246	1
5	242	247	1
6	242	248	1
7	243	261	2
8	243	266	2
9	243	267	2
10	244	250	2
11	244	251	2
12	244	254	2
13	244	259	2
14	244	262	2
15	245	260	2
16	246	252	2
17	246	253	2
18	246	255	2
19	246	257	2
20	246	263	2
21	247	249	2
22	247	256	2

- t_geo_objects

```
select * from t_geo_objects;
```

Query Result 11 | Query Result 12 | Query Result 13

SQL | Fetched 50 rows in 0.007 seconds

	GEO_ID	GEO_TYPE_ID	GEO_CODE_ID
1	242	2	1
2	243	10	419
3	244	10	2
4	245	10	21
5	246	10	142
6	247	10	9
7	248	10	150
8	249	11	57
9	250	11	14
10	251	11	15
11	252	11	143
12	253	11	34
13	254	11	11
14	255	11	30
15	256	11	54
16	257	11	145
17	258	11	155
18	259	11	17
19	260	11	21
20	261	11	5

- t_geo_parts

```
select * from t_geo_parts;
```

Query Result 12 | Query Result 13

SQL | All Rows Fetched: 6 in (

	GEO_ID	PART_ID
1	243	419
2	244	2
3	245	21
4	246	142
5	247	9
6	248	150

- lc_geo_parts

```
select * from lc_geo_parts;
```

Query Result 13 | Query Result 14 | Query Result 15 | Query Result 16 | Query Result 17

SQL | All Rows Fetched: 6 in 0.003 seconds

	GEO_ID	PART_ID	PART_CODE	PART_DESC	LOCALIZATION_ID
1	247	9	(null)	Oceania	1
2	245	21	(null)	Northern America	1
3	244	2	(null)	Africa	1
4	248	150	(null)	Europe	1
5	246	142	(null)	Asia	1
6	243	419	(null)	Latin America and the Caribbean	1

- t_geo_regions

```
select * from t_geo_regions;
```

Query Result 14 | Query Result 15 | Qu

SQL | All Rows Fetched: 22 in 0.004

	GEO_ID	REGION_ID
1	249	57
2	250	14
3	251	15
4	252	143
5	253	34
6	254	11
7	255	30
8	256	54
9	257	145
10	258	155
11	259	17
12	260	21
13	261	5
14	262	18
15	263	35
16	264	151
17	265	53

- lc_geo_regions

```
select * from lc_geo_regions;
```

Query Result 15 | Query Result 16 | Query Result 17 | Query Result 18

SQL | All Rows Fetched: 22 in 0.004 seconds

	GEO_ID	REGION_ID	REGION_CODE	REGION_DESC	LOCALIZATION_ID
1	250	14	(null)	Eastern Africa	1
2	262	18	(null)	Southern Africa	1
3	264	151	(null)	Eastern Europe	1
4	256	54	(null)	Melanesia	1
5	254	11	(null)	Western Africa	1
6	261	5	(null)	South America	1
7	260	21	(null)	Northern America	1
8	253	34	(null)	Southern Asia	1
9	249	57	(null)	Micronesia	1
10	259	17	(null)	Middle Africa	1
11	268	39	(null)	Southern Europe	1
12	270	61	(null)	Polynesia	1
13	269	154	(null)	Northern Europe	1
14	257	145	(null)	Western Asia	1
15	266	29	(null)	Caribbean	1
16	267	13	(null)	Central America	1
17	255	30	(null)	Eastern Asia	1
18	263	35	(null)	South-Eastern Asia	1
19	258	155	(null)	Western Europe	1
20	265	53	(null)	Australia and New Zealand	1
21	251	15	(null)	Northern Africa	1
22	252	143	(null)	Central Asia	1

- t_geo_systems

```
select * from t_geo_systems;
```

Query Result 16 | Query Result 17 | Qu

SQL | All Rows Fetched: 1 in 0.003

	GEO_ID	GEO_SYSTEM_ID
1	242	1

- lc_geo_systems

```
select * from lc_geo_systems;
```

Query Result 17 | Query Result 18

SQL | All Rows Fetched: 1 in 0.006 seconds

	GEO_ID	GEO_SYSTEM_ID	GEO_SYSTEM_CODE	GEO_SYSTEM_DESC	LOCALIZATION_ID
1	242	1	WORLD	The UN World structure	1

- t_geo_types

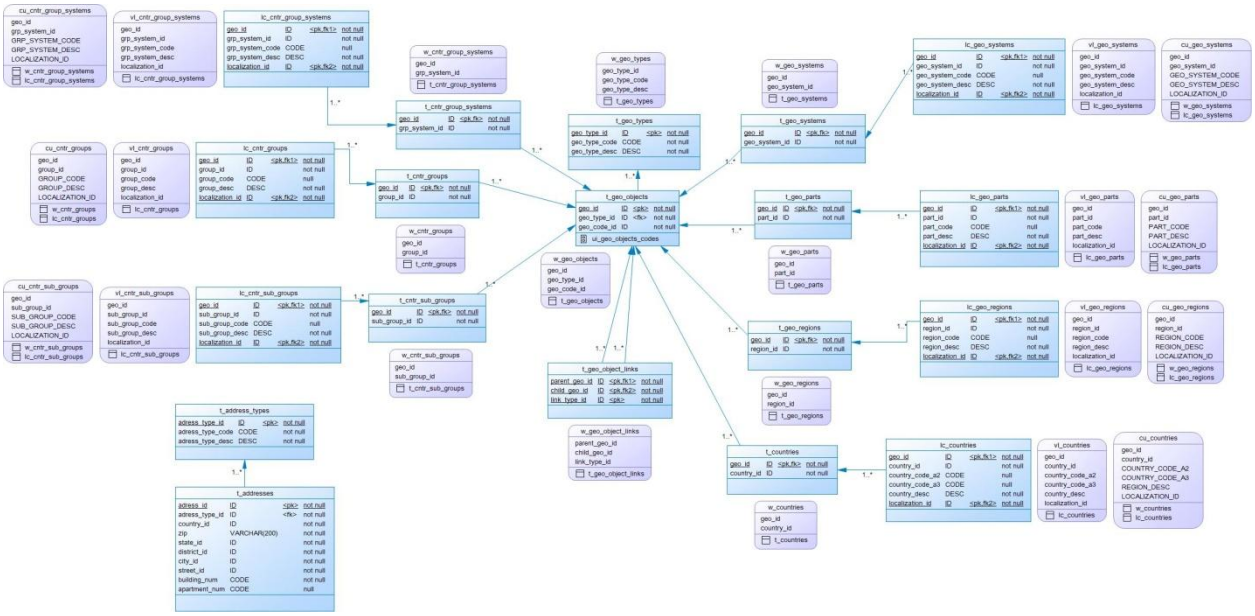
```
select * from t_geo_types;
```

Query Result 18

SQL | All Rows Fetched: 7 in 0.008 seconds

	GEO_TYPE_ID	GEO_TYPE_CODE	GEO_TYPE_DESC
1	2	GEO SYSTEM	System of Specification
2	10	CONTINENT	Referene: List of All Continets
3	11	REGIONS	Referene: List of All Continets - Regions
4	12	COUNTRY	Referene: List of All Countries
5	50	GROUP SYSTEM	Grouping system of specification countries
6	51	COUNTRY GROUP	Referene: List of All Countries Groups
7	52	COUNTRY SUB GROUP	Referene: List of All Countries Sub Groups

The Physical Diagram of T_Countries



t_ext_geo_countries_iso3166		
country_id	NUMBER(10,0)	null
county_desc	DESC	null
country_code	VARCHAR2(30 CHAR)	null

t_ext_geo_structure_iso3166		
child_code	NUMBER(10,0)	null
parent_code	NUMBER(10,0)	null
structure_desc	DESC	null
structure_level	DESC	null

t_ext_cntr_grouping_iso3166		
child_code	NUMBER(10,0)	null
parent_code	NUMBER(10,0)	null
group_desc	DESC	null
group_level	DESC	null

cls_geo_countries_iso3166		
country_id	NUMBER(10,0)	null
country_desc	DESC	null
country_code	CODE	null

cls_geo_structure_iso3166		
child_code	NUMBER(10,0)	null
parent_code	NUMBER(10,0)	null
structure_desc	DESC	null
structure_level	DESC	null

cls_cntr_grouping_iso3166		
child_code	NUMBER(10,0)	null
parent_code	NUMBER(10,0)	null
group_desc	DESC	null
group_level	DESC	null

t_ext_geo_countries2_iso3166		
country_desc	DESC	null
country_code	VARCHAR2(30 CHAR)	null

t_ext_cntr2structure_iso3166		
country_id	NUMBER(10,0)	null
county_desc	DESC	null
structure_code	NUMBER(10,0)	null
structure_desc	DESC	null

t_ext_cntr2grouping_iso3166		
country_id	NUMBER(10,0)	null
county_desc	DESC	null
group_code	NUMBER(10,0)	null
group_desc	DESC	null

cls_geo_countries2_iso3166		
country_desc	DESC	null
country_code	CODE	null

cls_cntr2structure_iso3166		
country_id	NUMBER(10,0)	null
county_desc	DESC	null
structure_code	NUMBER(10,0)	null
structure_desc	DESC	null

cls_cntr2grouping_iso3166		
country_id	NUMBER(10,0)	null
county_desc	DESC	null
group_code	NUMBER(10,0)	null
group_desc	DESC	null