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| EPAM Systems, RD Dep.  MTN.\*NIX.07 Oracle DB. Introduction to DWH |
| MTN.\*NIX.07 Labs - Star Schema Basics |

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# Prerequisites Task

## 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%” |
|  |  |  |
|  |  |  |

## 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** |
|  |  |  |
|  |  |  |

# OLTP – Load External References – Normalization of Data

## Task 01 – Install and expand load of external references T\_Languages

Description of External Resources:

|  |  |
| --- | --- |
| File Name | Path |
| iso-639-3.tab | …\Topic 06 - Star Schema Basics\External\_References |
| iso-639-3-Macro.tab | …\Topic 06 - Star Schema Basics\External\_References |

### iso-639-3.tab – Storage of Languages

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Comment |
| lng\_3c\_code | VARCHAR2( 3 CHAR ) | ISO 639-3 identifier |
| lng\_2b\_code | VARCHAR2( 3 CHAR ) | ISO 639-2 identifier of the bibliographic applications |
| lng\_2t\_code | VARCHAR2( 3 CHAR ) | ISO 639-2 identifier of the terminology applications code |
| lng\_1c\_code | VARCHAR2( 2 CHAR ) | ISO 639-1 identifier - common standard |
| lng\_scope | VARCHAR2( 2 CHAR ) | Identifier of the language scope |
| lng\_type | VARCHAR2( 1 CHAR ) | Identifier of the language type |
| lng\_desc | VARCHAR2(200 CHAR) | Edonym Name of Language |

### iso-639-3-Macro.tab – Store of Links Between Macro and Individual languages

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Comment |
| macro\_lng\_code | VARCHAR2(3 CHAR) | LNG\_ID: MacroLanguage - T\_Languages |
| indiv\_lng\_code | VARCHAR2(3 CHAR) | LNG\_ID: Individual Language - T\_Languages |

### Installing scripts

Path: …\Topic 06 - Star Schema Basics\lab\_scripts\task01\

|  |  |  |
| --- | --- | --- |
| Path: | Folder | Description |
| ../ lab\_scripts/task01 |  |  |
|  | /system | All system admin scripts:   * Initial Tablespaces scripts * Initial Users scripts |
|  | /u\_dw\_common | Store common used objects |
|  | /u\_dw\_references | Store of DB references objects |
|  | /u\_dw\_ext\_references | Cleansing store for External References |

**The Main Task** is to running preparing SQL scripts and install needed objects for load external reference T\_Languages.

**Task Results:**

* Create sql scripts to show All created Tables and Views – Screenshot

SELECT Table\_NAME, OWNER

FROM SYS.ALL\_TABLES

WHERE OWNER IN ('U\_DW\_COMMON', 'U\_DW\_REFERENCES', 'U\_DW\_EXT\_REFERENCES')

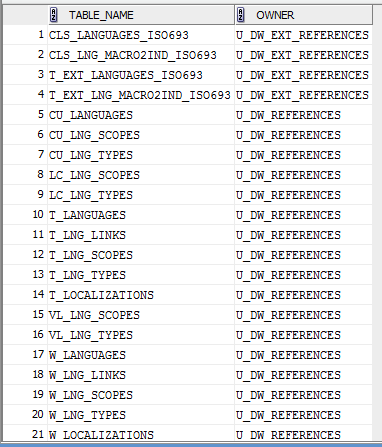
UNION

SELECT VIEW\_NAME, OWNER

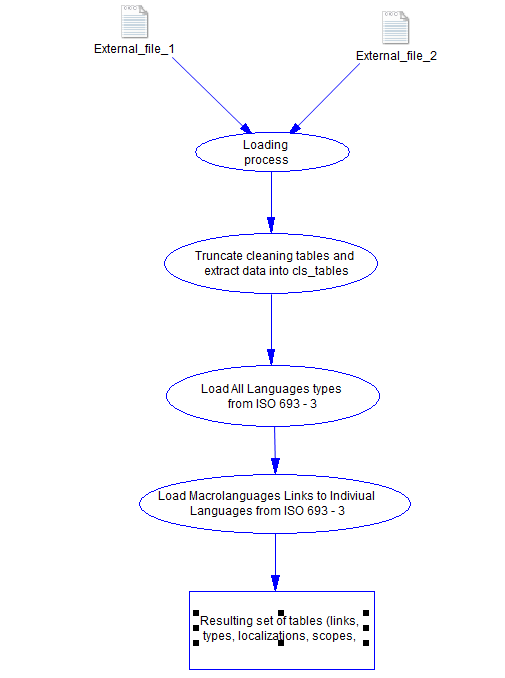
FROM SYS.ALL\_VIEWS

WHERE OWNER IN ('U\_DW\_COMMON', 'U\_DW\_REFERENCES', 'U\_DW\_EXT\_REFERENCES')

ORDER BY OWNER

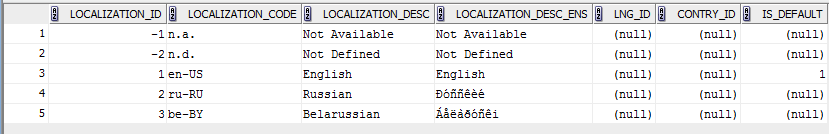


* Create DataFlow: Sketch Diagram of loading external References (MS Visio, MS Paint, MS Word, etc.)



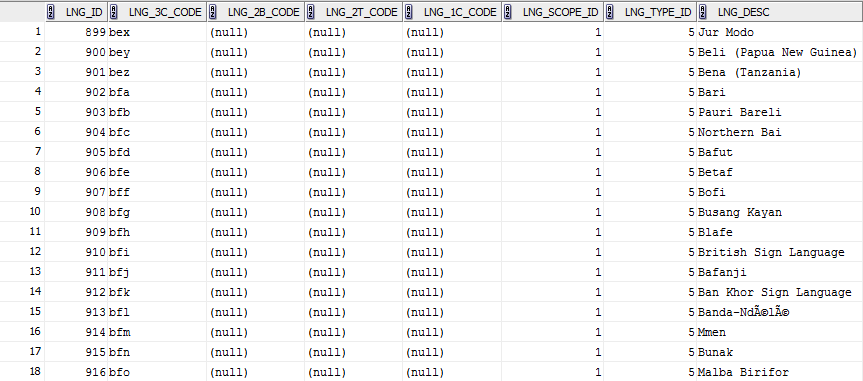
* Create sql: Showing result of data on next objects:
  + t\_localizations

select \* from t\_localizations;



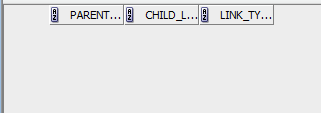
* + cu\_languages

select \* from cu\_languages;



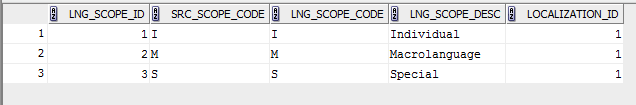
* + w\_lng\_links

select \* from w\_lng\_links;



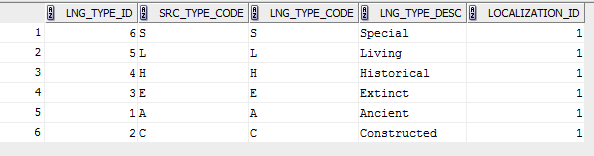
* + cu\_lng\_scopes

select \* from cu\_lng\_scopes;

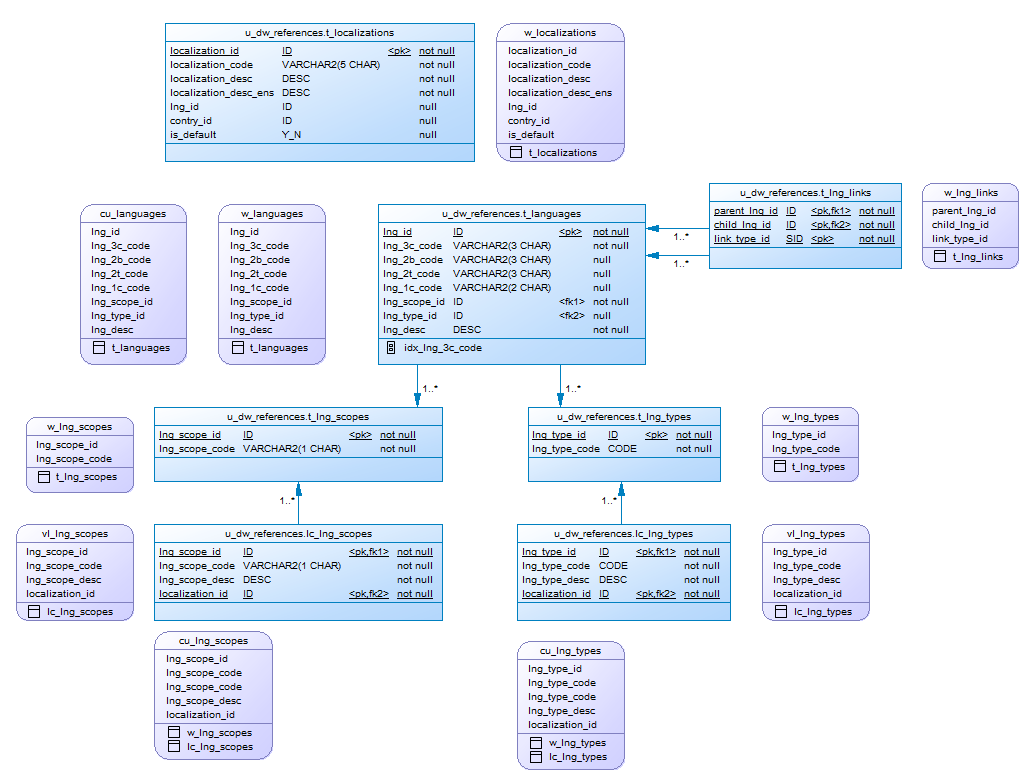


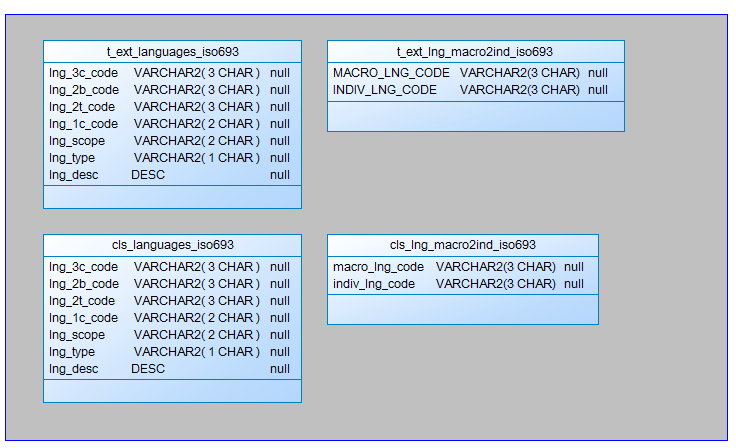
* + cu\_lng\_types

select \* from cu\_lng\_types;



The Physical Diagram of T\_Languages below:





## Task 02 – Create load process for External references T\_Countries

Description of External Resources:

|  |  |
| --- | --- |
| File Name | Path |
| iso\_3166.tab | …\Topic 06 - Star Schema Basics\External\_References |
| iso\_3166\_geo\_un.tab | …\Topic 06 - Star Schema Basics\External\_References |
| iso\_3166\_geo\_un\_contries.tab | …\Topic 06 - Star Schema Basics\External\_References |
| iso\_3166\_groups\_un.tab | …\Topic 06 - Star Schema Basics\External\_References |
| iso\_3166\_groups\_un\_contries.tab | …\Topic 06 - Star Schema Basics\External\_References |

**The Main Task** is to develop SQL scripts and install needed objects for load external reference T\_Countries.

**Task Results:**

* Create SQL scripts to show All created Tables and Views – Screenshot

SELECT Table\_NAME, OWNER

FROM SYS.ALL\_TABLES

WHERE OWNER IN ('U\_DW\_COMMON', 'U\_DW\_REFERENCES', 'U\_DW\_EXT\_REFERENCES')

UNION

SELECT VIEW\_NAME, OWNER

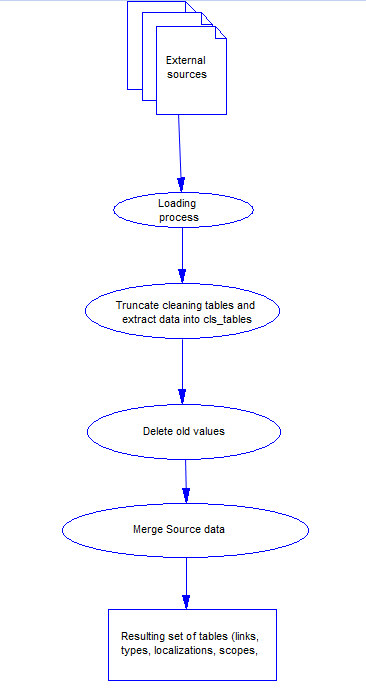
FROM SYS.ALL\_VIEWS

WHERE OWNER IN ('U\_DW\_COMMON', 'U\_DW\_REFERENCES', 'U\_DW\_EXT\_REFERENCES')

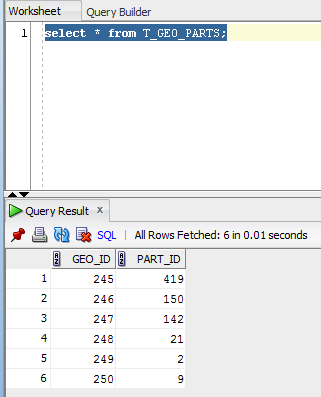
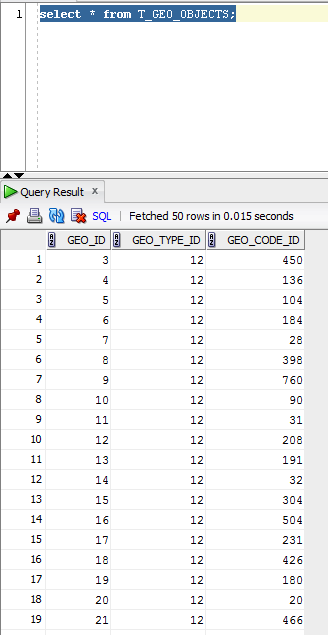
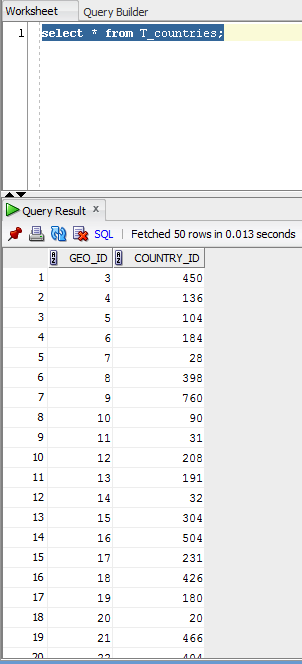
ORDER BY OWNER

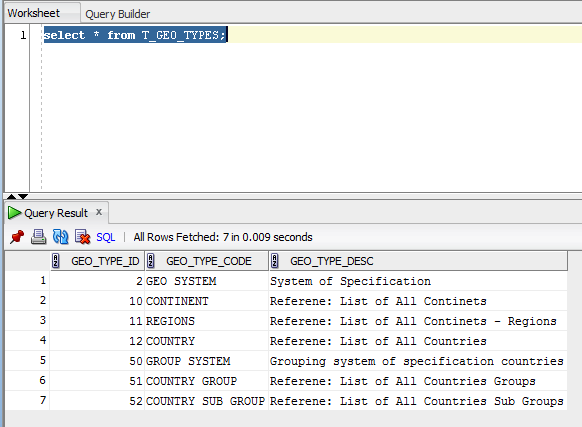
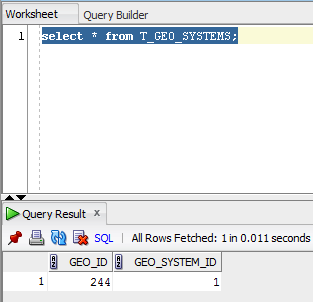
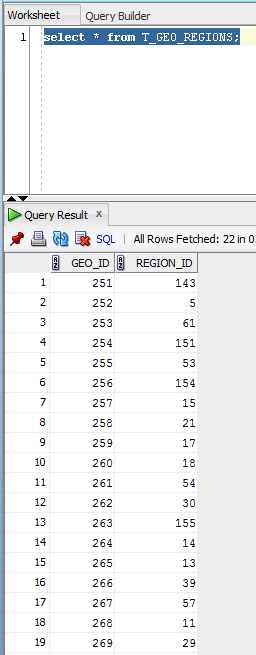


* Create DataFlow: Sketch Diagram of loading external References (MS Visio, MS Paint, MS Word, etc.)

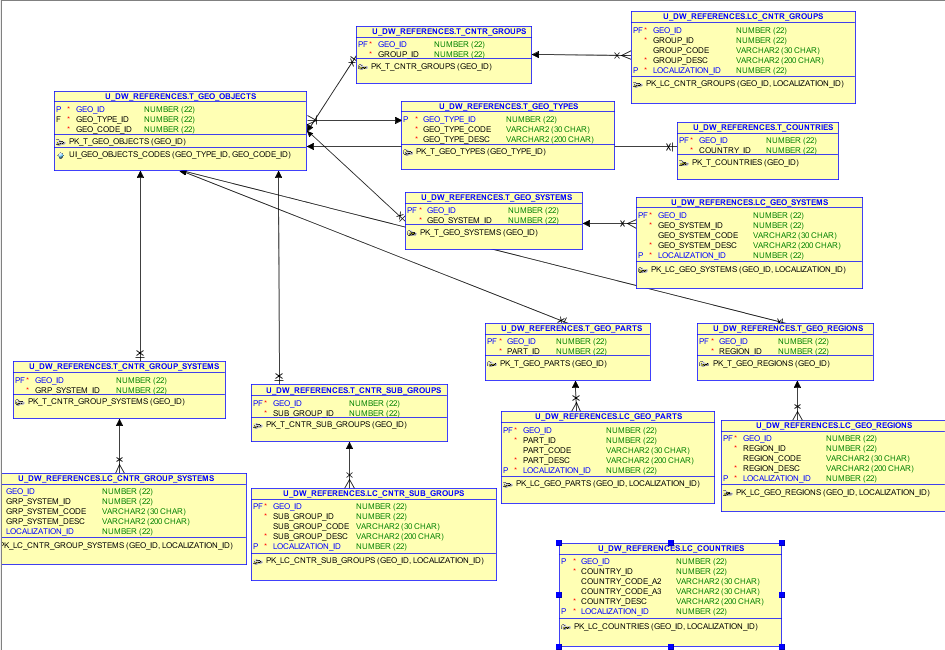


* Create SQL: Showing result of data on main objects:





* Prepare The Physical Diagram of T\_Countries



# OLAP – Business analyses task

Create any business analyses task for interesting for your business. The main idea is to use next main dimension:

* Time
* Geo-Location – T\_COUNTRIES

## Task 03 – Solution concept – Business background

**The Main Task** is to create Solution concept of yours any business analyses task. You should use Developing Model, that described on MTN.NIX.07.Oracle DB.DWH\_courseware06\_Star Schema Basics.docx.

**Task Results:**

Create Solution Concept document, which contained next chapters:

Overview

Business Background

Benefit

Requirements

Business Requirements

Technical Requirements

Solution Sketch

Source Tables structure

Summarize Data Plan

# OLAP – Develop Star-Scheme and SnowFlake Scheme.

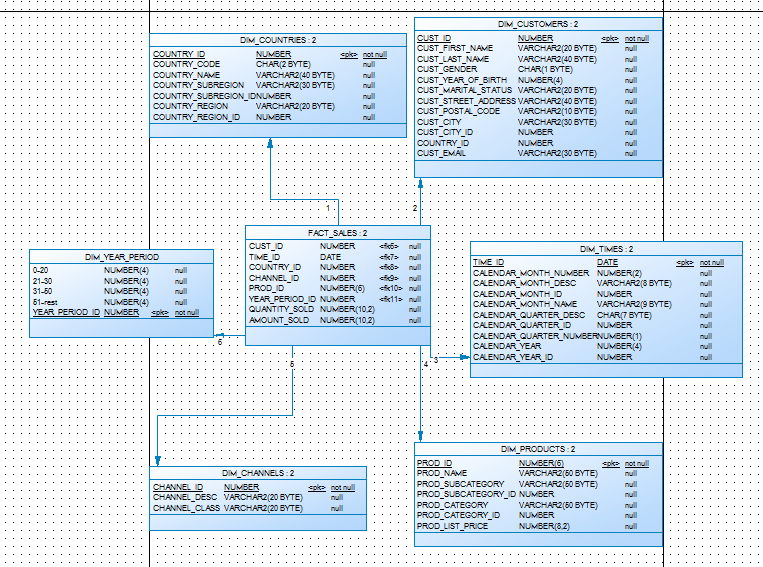
## Task 04 – Develop Star-Scheme physical diagram

**The Main Task** is to create Star Physical diagram and Logical diagram of solution.

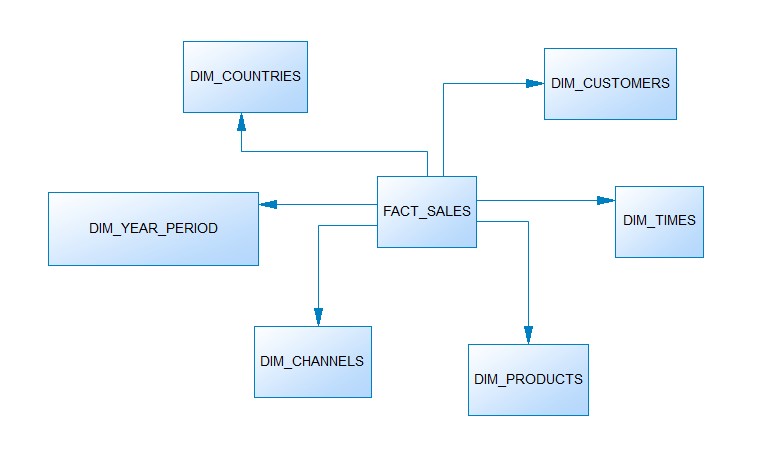
**Task Results:**

Create document, which contained next chapters:

* + Physical diagram



* + Logical diagram



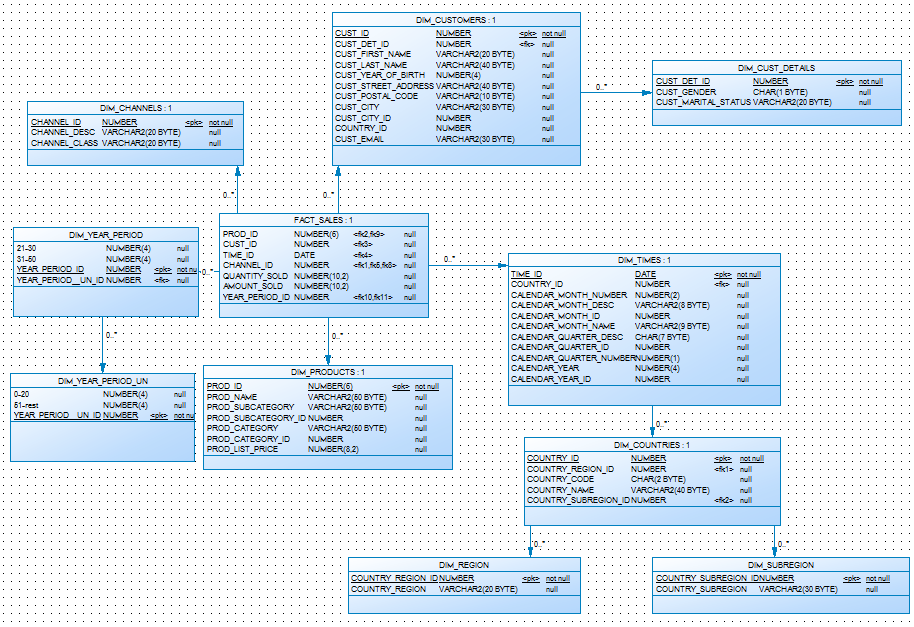
## Task 05 – Develop SnowFlake physical diagram

**The Main Task** is to create SnowFlake Physical diagram and Logical diagram of solution.

**Task Results:**

Create document, which contained next chapters:

* + Physical diagram



* + Logical diagram

