**Report**

**on the**

U1M8.LW.Data Warehouse Architecture

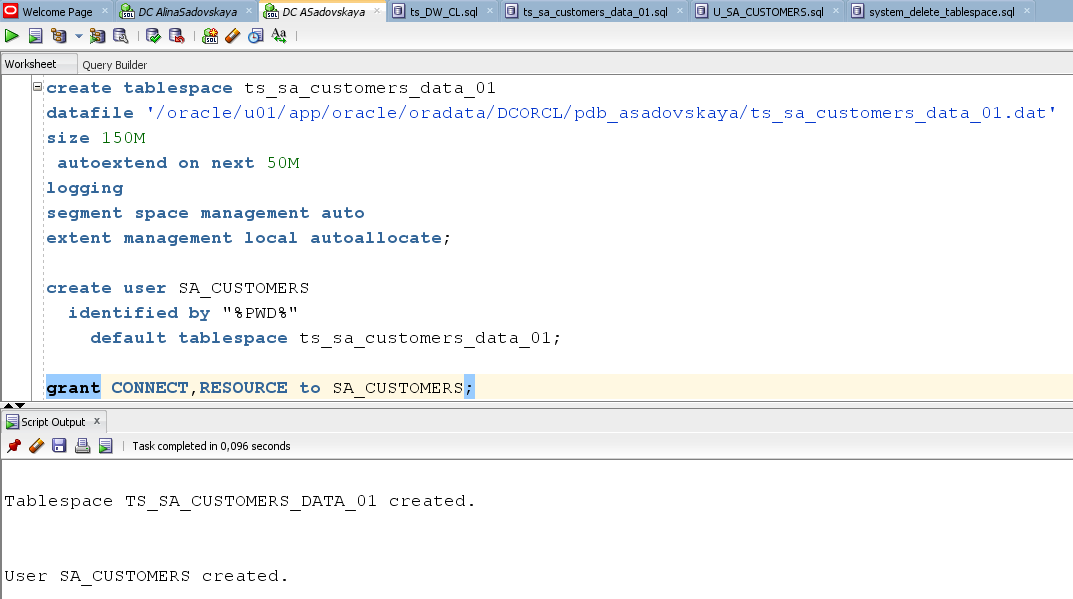
**Alina Sadovskaya**

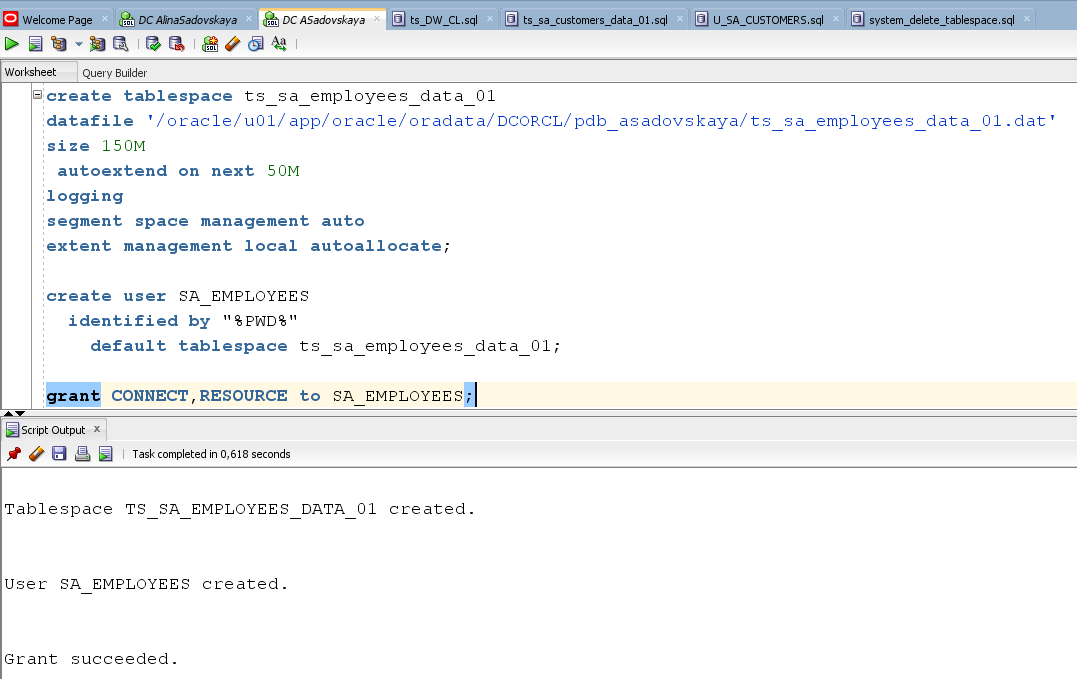
# 2. Data Warehouse Architecture

## 2.1. Task 01: CREATE Schema of simple Data Warehouse Architecture

|  |  |  |  |
| --- | --- | --- | --- |
| Level Type | Object Name | Tablespace | Desctiption |
| Storage level  SA\_\* | SA\_CUSTOMERS | ts\_sa\_customers\_data\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  LOGGING,  Size 150M,  Autoextend clause ON next 50M) | Loading from structed files(exp. Xml\*). Contains customers, products, discounts, payment method. |
| SA\_EMPLOYEES | ts\_sa\_employees\_data\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  LOGGING,  Size 150M,  Autoextend clause ON next 50M) | Loading from float files. Contains employees, geo\_locations, stores. |
| DW - Cleansing Level | DW\_CL | ts\_DW\_CL  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 100M,  Autoextend clause ON next 50M) | LOADING from stage level system. Contains all information and prepare it for further usage (cleaning it). |
| DW – Level | DW\_DATA | ts\_DW\_DATA\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  LOGGING,  Size 150M,  Autoextend clause ON next 50M) | LOADING data from cleansing system. Contains clean information tending to the 3rd normal form ready for preparing star schema. |
| DW– Prepare Star Cleansing Level | SAL\_DW\_CL | ts\_ DW \_STR\_CLS  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | LOADING data from DW system. Contains views merging objects from DW level. |
| STAR - Cleansing | SAL\_CL | ts\_SAL\_CL  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | LOADING data from DW\_CL system. Contains views from previous level but clean any redundancy. |
| STAR – Level | DM\_PRODUCT\_BALANCES | ts\_SA\_FCT \_BALANCES\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | Store information about facts(PRODUCT BALANCES) |
| DM\_RETAIL\_SALES | ts\_SA\_FCT \_SALES\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | Store information about facts(RETAIL SALES) |
| DM\_CUSTOMERS | ts\_SA\_DIM\_CUST\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | Store information about dim customers. |
| DM\_PRODUCTS | ts\_SA\_DIM\_PROD\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | Store information about dim products. |
| DM\_PROMOTION | ts\_SA\_DIM\_PROM\_01  (AUTOALLOCATE,  SEGMENT SPACE MANAGEMENT AUTO,  NOLOGGING,  Size 150M,  Autoextend clause ON next 50M) | Store information about dim promotions. |

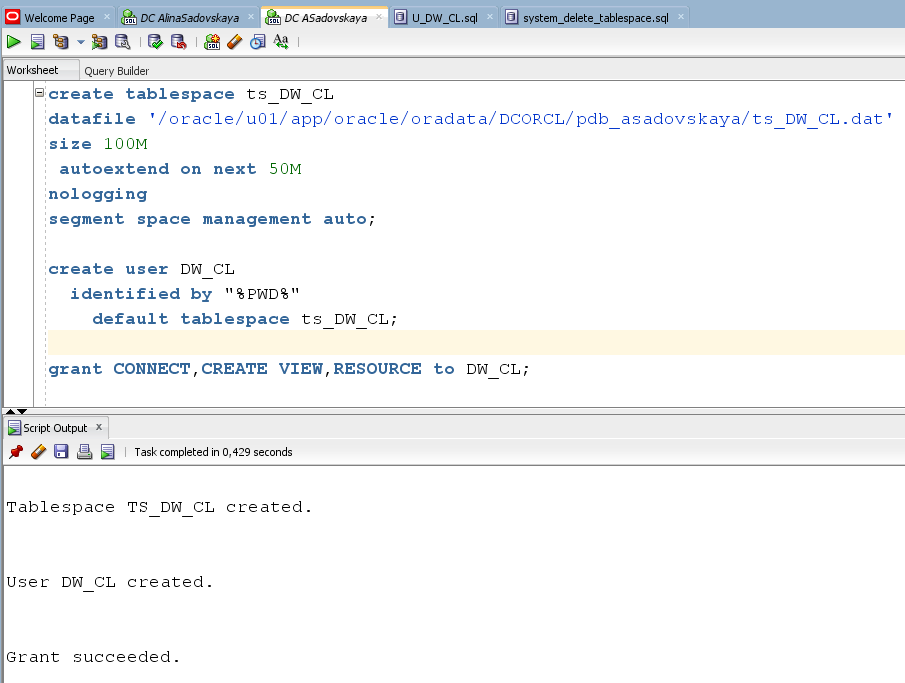
## 2.2. Task 02: CREATE Storage Level



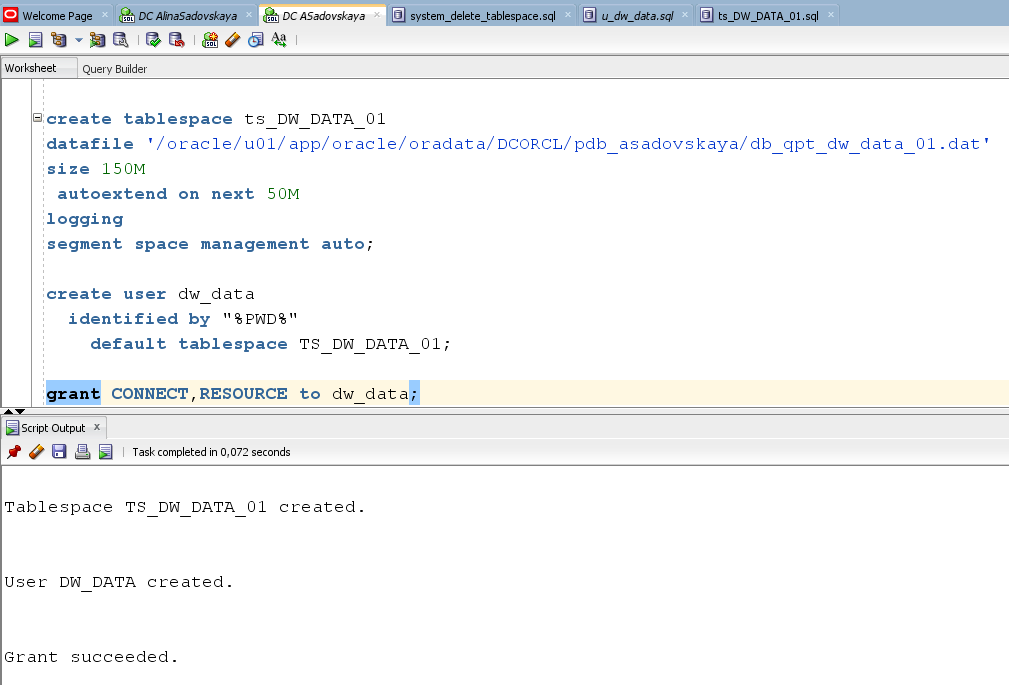


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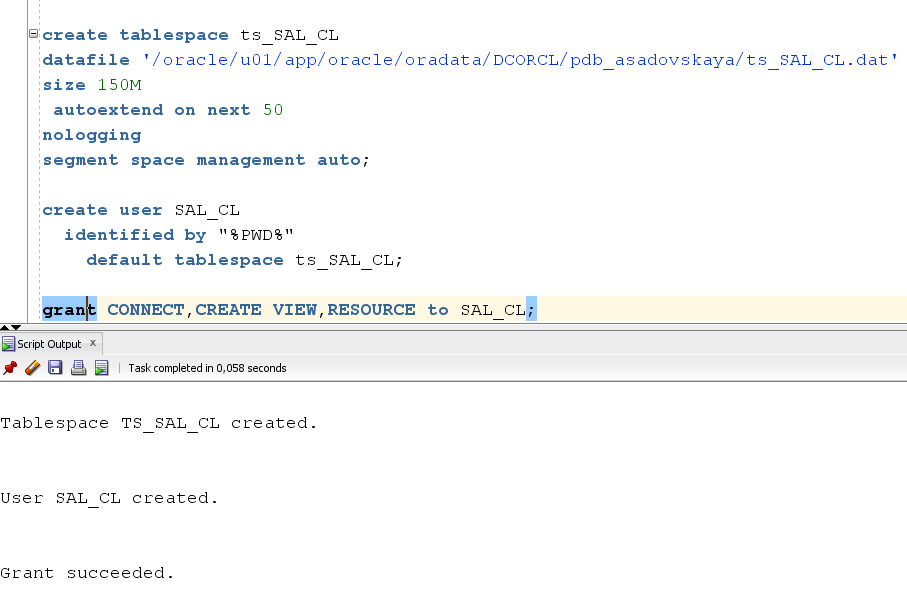
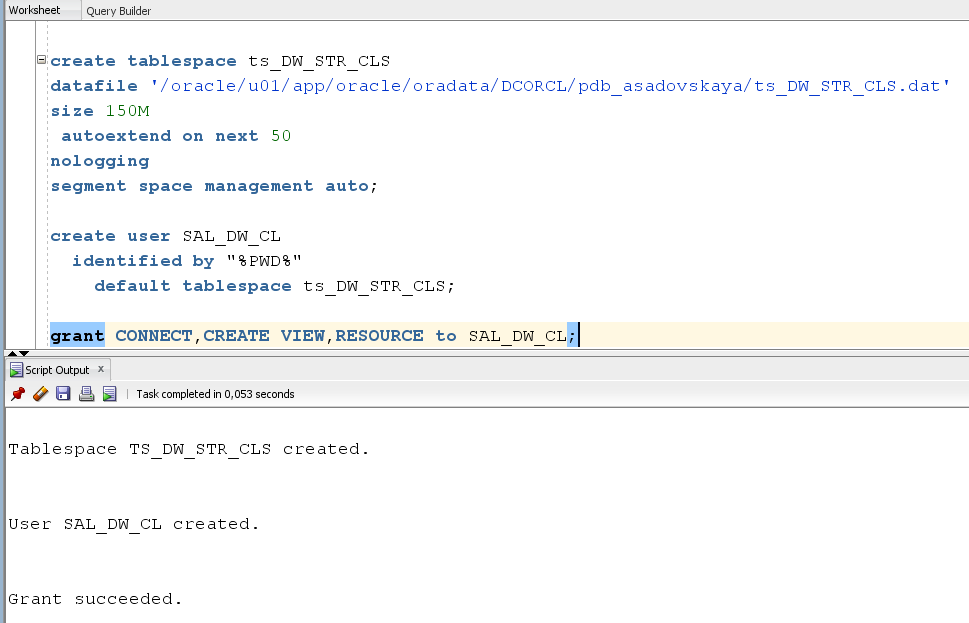
## 2.3. Task 03: CREATE Data warehouse Cleansing Level



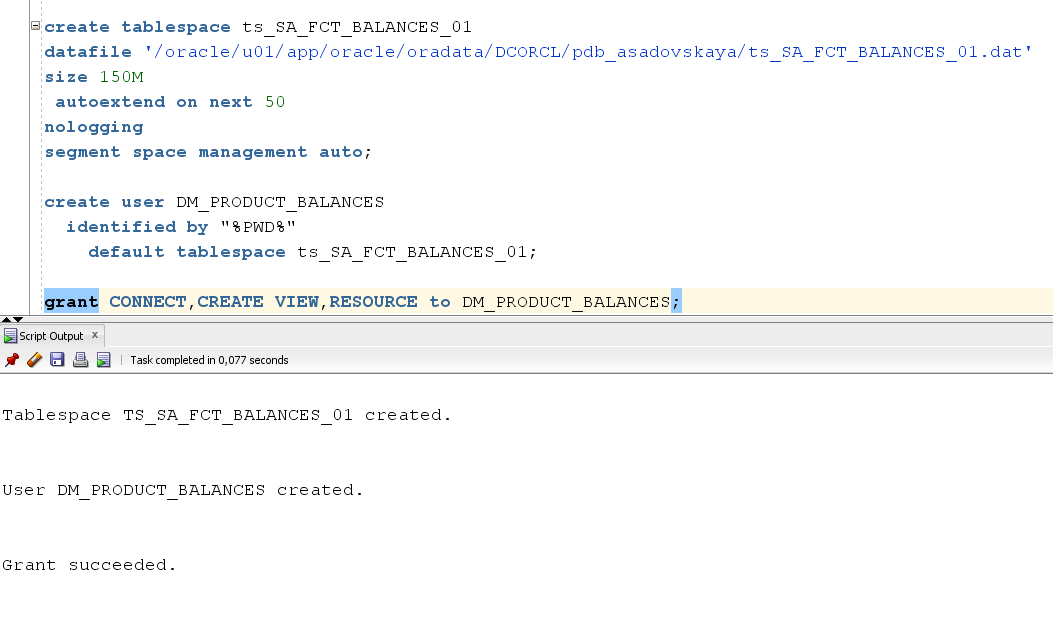
## 2.4. Task 04: CREATE Data warehouse Start Cleansing Level

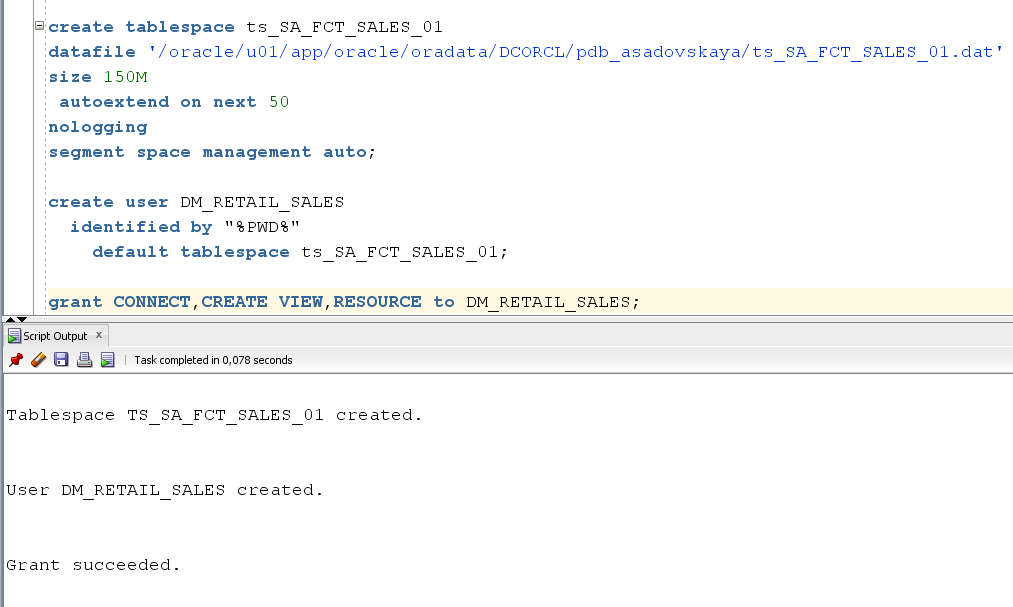


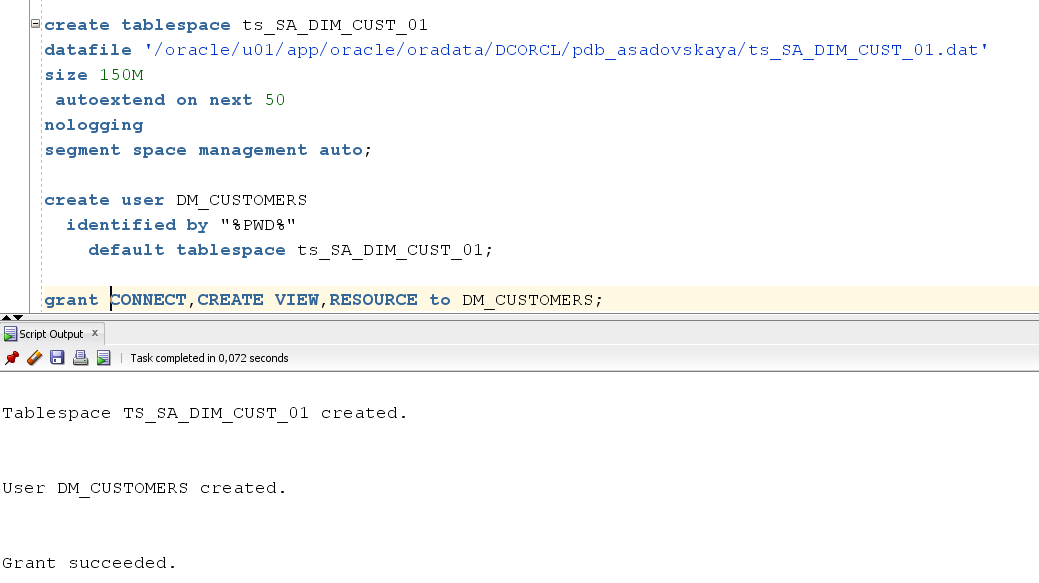
2.5. Task 05: CREATE Start Cleansing Level

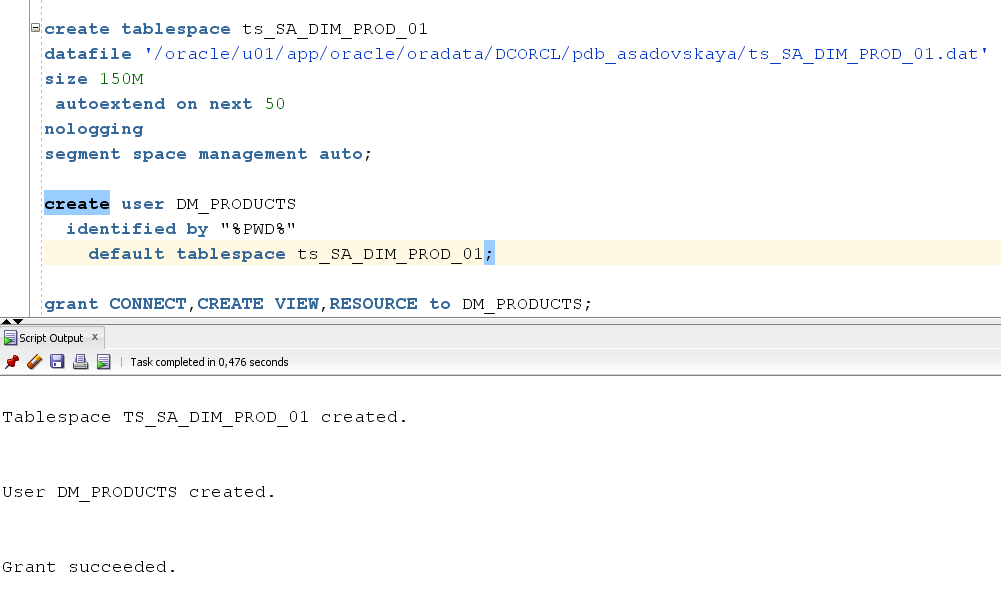


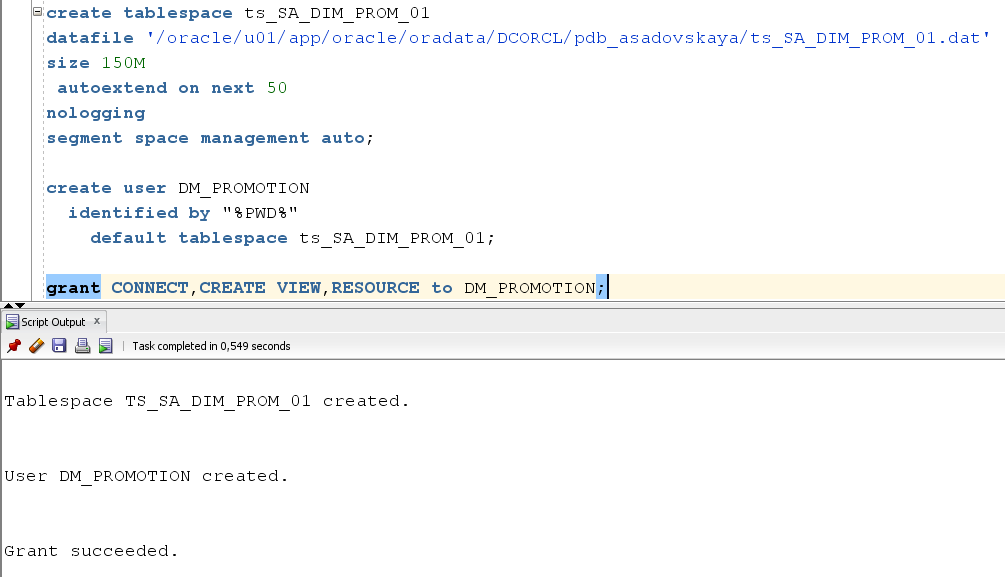
## 2.6. Task 06: CREATE Data warehouse Start Level and Data Marts











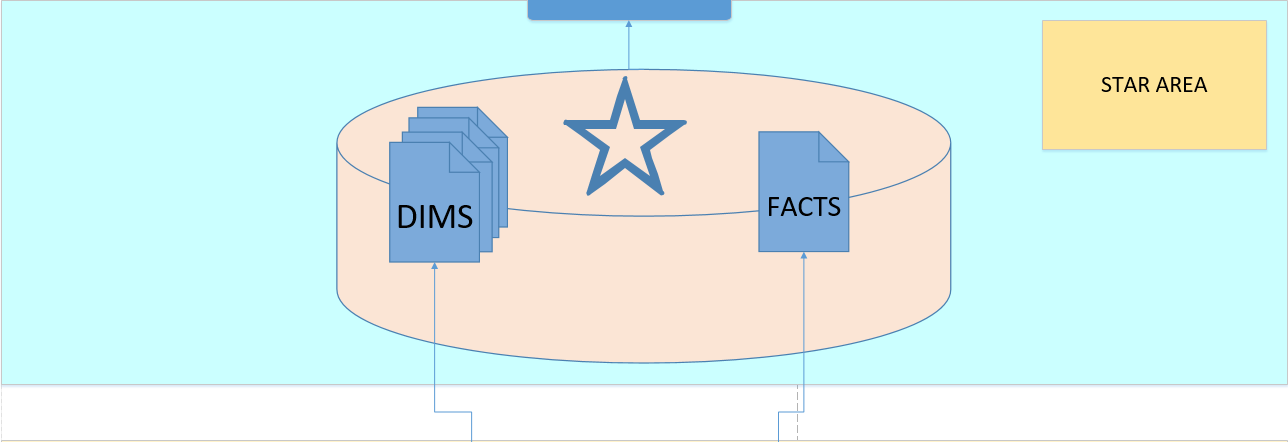
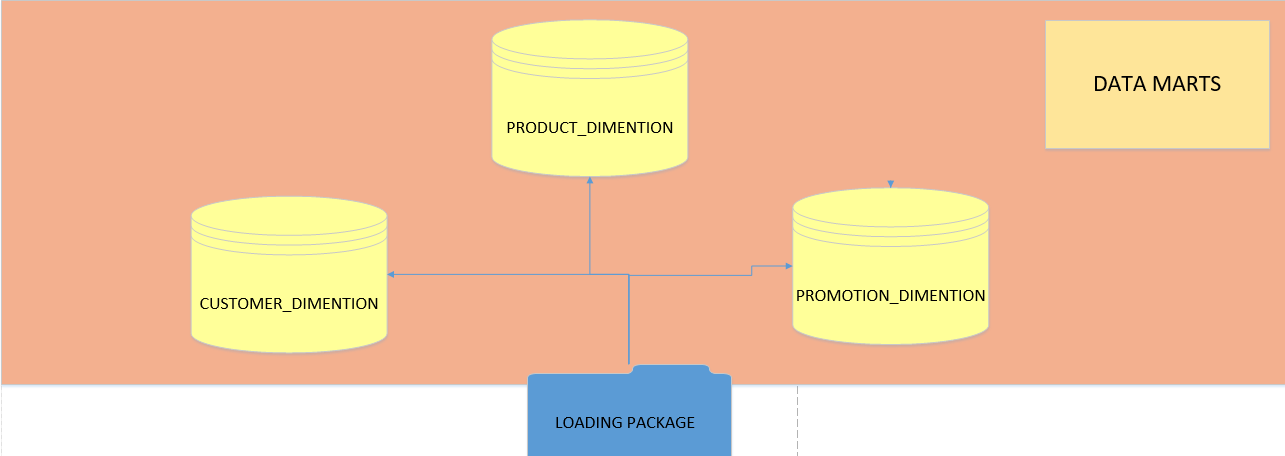
# 3. Star – Business analyses task

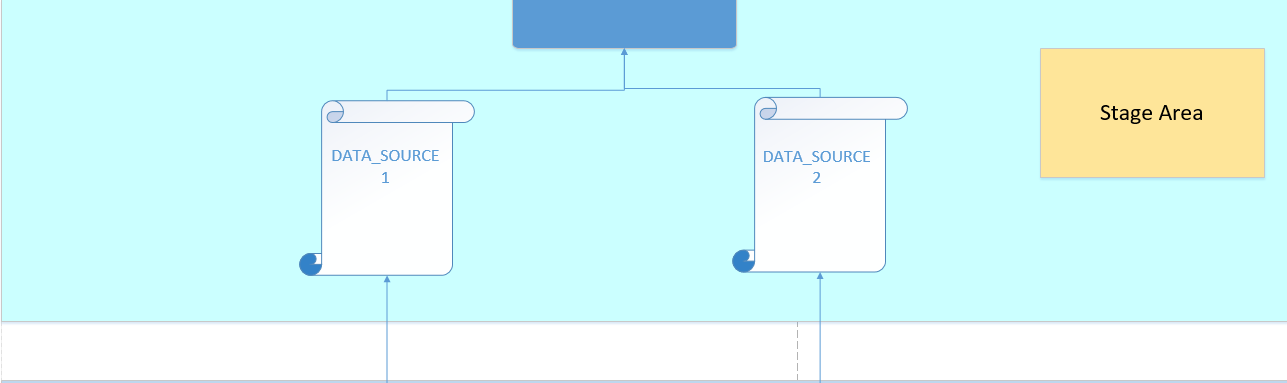
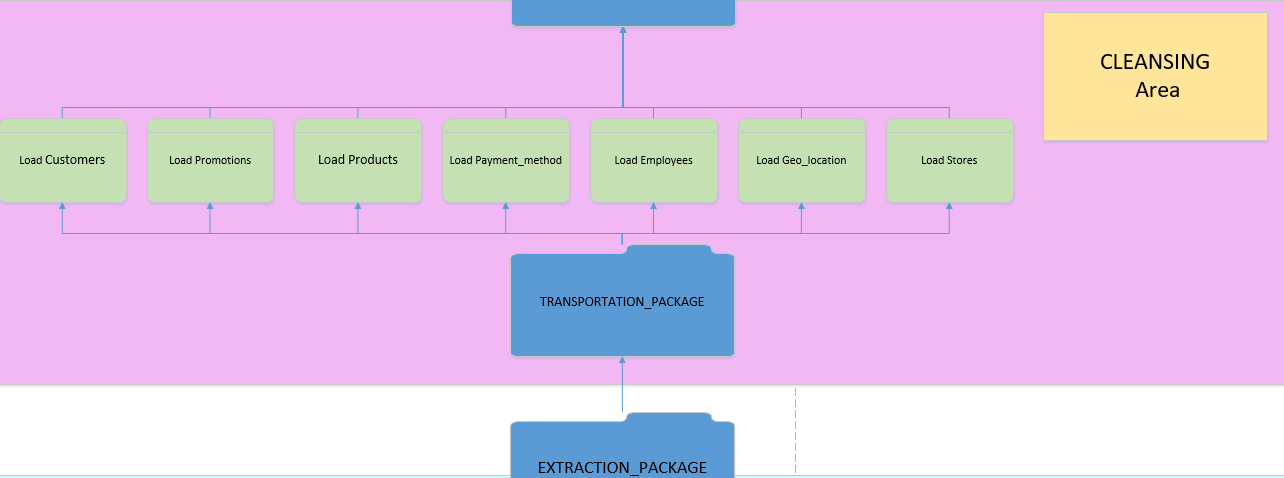
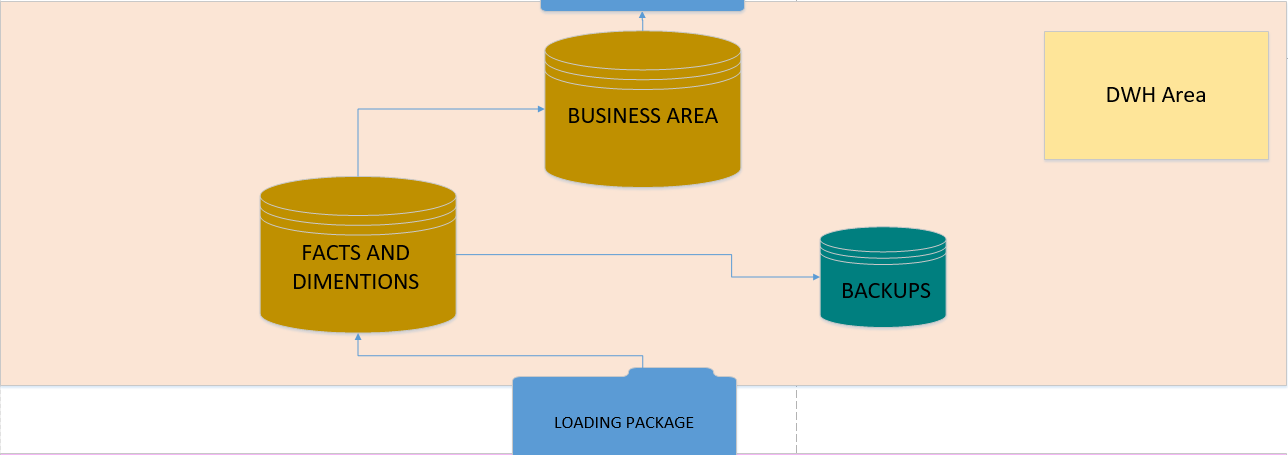
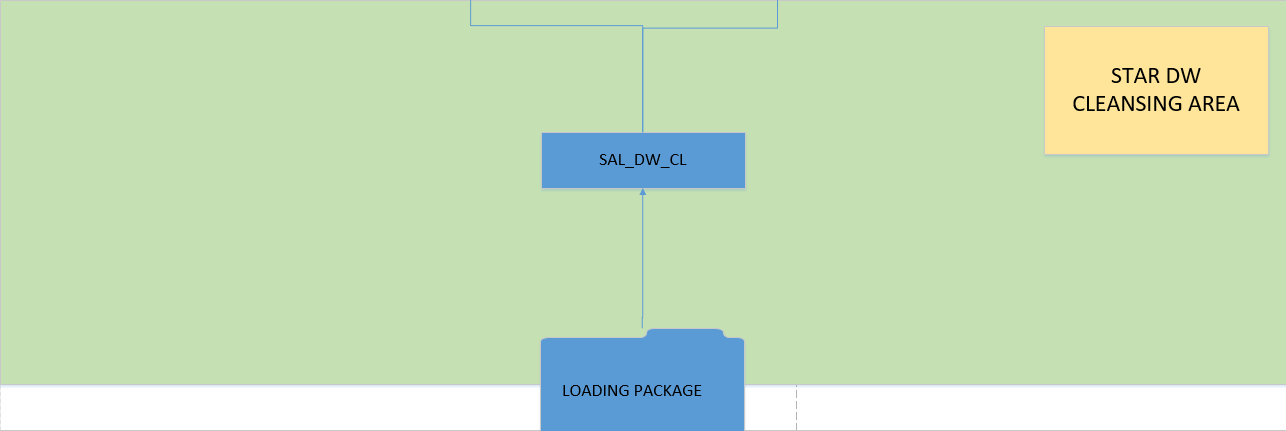
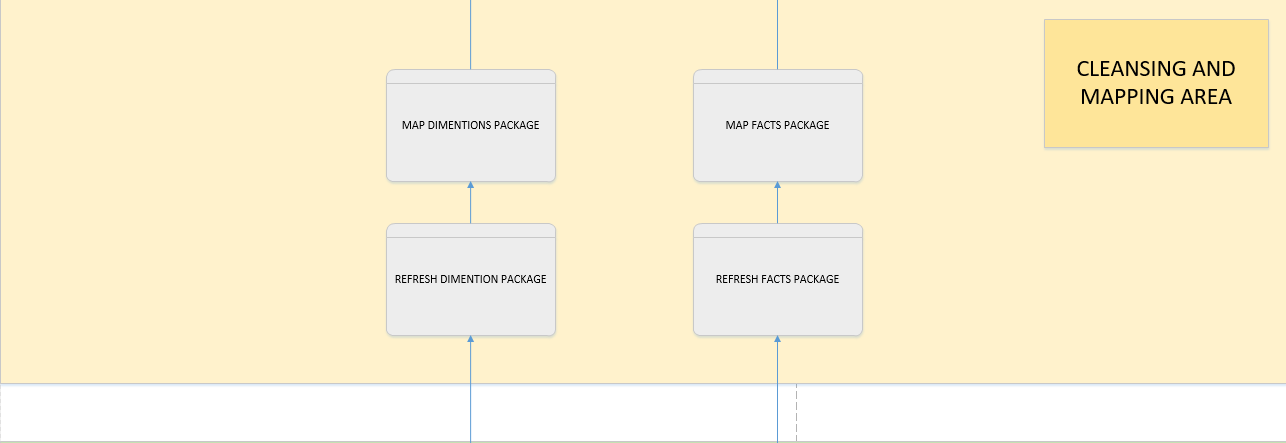
3.1. Task 07: CREATE Prepared Star Objects

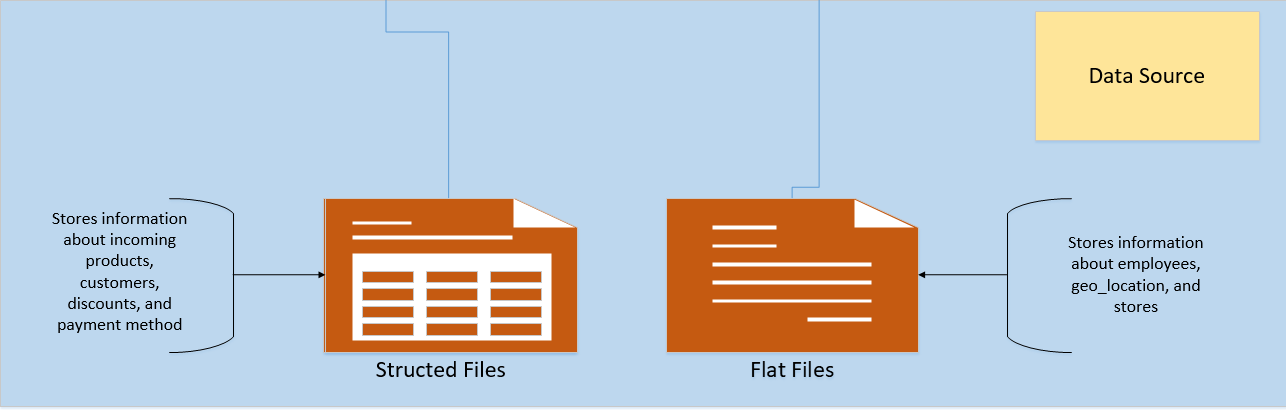
The code is located in this directory in the "scripts" folder.

## 3.2. Task 08: DataFlow Diagram

DataFlow Diagram to describe refresh process of mine Business STAR:







## 3.3. Task 09: Grants Object Privileges

This table describes users and their privileges:

|  |  |
| --- | --- |
| USERS | PRIVILEGES |
| SA\_CUSTOMERS | * create tables * create views * push data upstairs (update upper user(DW\_CL) |
| SA\_EMPLOYEES | * create tables * create views * push data upstairs (update upper user(DW\_CL) |
| DW\_CL | * create/drop tables/views * Select/ Merge from/with SA views * push it upstairs (update objects ts\_DW\_DATA\_01) |
| DW\_DATA | * create/drop tables/views * push it upstairs (update objects ts\_DW\_STR\_CLS) * Select / Merge from/with DW-CL views |
| SAL\_DW\_CL | * create/drop tables/views * push it upstairs (update objects ts\_SAL\_CL) * Select from SA-CL views |
| SAL\_CL | * create/drop tables/views * push it upstairs (update objects ts\_ STR\_DATA) * Select/ Merge from /with Contr\_DW views |
| DM\_PRODUCT\_BALANCES | * create/drop tables/views |
| DM\_RETAIL\_SALES |
| DM\_CUSTOMERS |
| DM\_PRODUCTS |
| DM\_PROMOTION |