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U1M7.LW.Dimension and Facts Basics

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

# 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

# 3. OLAP – Business analyses task

## 3.1. Task 06 – Solution concept – Add: Chapter Dimensions Types

**The Main Task** is to create summary table to describe all future STAR Dimensions:

Next points are mandatory:

* Start scheme must use no less one of SCD type 2 Dimension
* Start scheme must use prepared dimensions: DIM\_TIME, DIM\_GEO\_LOCATIONS
* Start scheme must use one of period dimensions: DIM\_GEN\_PERIODS

**Task Results:**

Create document, which contained next chapters:

* Chapter: Dimensions Types Description

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Type | Size | DW – Merged Dimensions | Descriptions |
| DIM\_GEN\_TIME | SCD1 | BIG | DW.T\_DAYS, DW.T\_WEEKS, DW.T\_MONTHS, DW.T\_QUARTERS,  DW.T\_YEARS | TBD – Example row |

## 3.2. Task 07 – Solution concept – Add: Chapter Dimensions Hierarchies

**The Main Task** is to create summary table to describe all future STAR Dimensions Hierarchies:

Next points are mandatory:

* Start scheme must use no less one of SCD type 2 Dimension
* Start scheme must use prepared dimensions: DIM\_TIME, DIM\_GEO\_LOCATIONS
* Start scheme must use one of period dimensions: DIM\_GEN\_PERIODS

**Task Results:**

Create document, which contained next chapters:

* Chapter: Dimensions Hierarchies

**DIM\_GEN\_TIME:**

**Hierarchy DAY-WEEK-MONTH-YEAR**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAYs | DAY | Store all day at the calendar | DAY\_ID |
| WEEKs | WEEK | Store all weeks at the calendar year | WEEK\_ID |
| Etc… |  |  |  |

**Hierarchy DAY--MONTH- QUARTER -YEAR**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAYs | DAY | Store all day at the calendar | DAY\_ID |
| MONTHSs | MONTH | Store all months at the calendar year | WEEK\_ID |
| Etc… |  |  |  |

**DIM\_....\_SCD**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| TBD |  |  |  |
|  |  |  |  |
| Etc… |  |  |  |

## 3.3. Task 08 – Solution concept – Add: Chapter Facts Aggregations

**The Main Task** is to create summary table to describe all future STAR Fact Table Aggregations:

Next points are mandatory:

* Create more than one measurement
* Summarize aggregation
* Additional task: Not Additive measurement

**Task Results:**

Create document, which contained next chapters:

* Chapter: Facts Aggregations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Code | Table Name | Additive | Descriptions |
| Counts Contracts | count\_cntr | FCT\_TEST | + | Calculate distinct values of Contracts at the event\_dt period. |
| … TDB |  |  |  |  |