**Lab report #7 Task 6-8**

**Sadovskaya Veronika**

**Task 6 – Solution concept – Add: Chapter Dimensions Types**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Type | Size | DW – Merged Dimension | Description |
| DIM\_GEN\_TIMES | SCD1 | BIG | DW.T\_DAY  DW.T\_WEEKS  DW.T\_MONTHS  DW.T\_QUARTERS  DW.T\_YEARS | TBD – Example row |
| DIM\_GEO\_LOCATIONS | SCD1 | SMALL | GEO\_ID  GEO\_GROUP\_ID  GEO\_GROUP\_DESC  GEO\_SUB\_GROUP\_ID  GEO\_DUB\_GROUP\_DESC  GEO\_SYSTEM\_CODE  GEO\_SYSTEM\_DESC  GEO\_REGION\_ID  GEO\_REGION\_DESC  GEO\_COUNTRY\_CODE\_A2  GEO\_COUNTRY\_CODE\_A3  GEO\_COUNTRY\_ID  GEO\_COUNTRY\_DESC | This kind of dimension contains information about all countries, subregions, regions of the world where the company's stores are located. And also enters information on the types of economic development and unions according to the international classification. |
| CLIENT\_DIMENSION | SCD1 | BIG | CLIENT\_ID  FIRST\_NAME  LAST\_NAME  PNONE  EMAIL  ADDRESS  COUNTRY  CITY  STATUS | This kind of dimension contains detailed information about clients. |
| DISH\_DIMENSION | SCD2 | BIG | DISH\_ID  DISH\_NAME  DISH\_CATEGORY  PRICE  COMPOSITION  WEIGHT  STATUS | This kind of dimension contains detailed information about the restaurant’s dishes, including the name of dish, category, composition and weight. To do so, provided the opportunity for dimension Type SCD 2 perfectly partitions history because each detailed version of a dimensional entity is correctly connected to the span of fact table records for which that version is exactly correct. |
| RESTAURANT\_DIMENSION | SCD1 | SMALL | RESTAURANT\_ID  PHONE  EMAIL  ADDRESS  COUNTRY  CITY  BUILDING  APARTMENT  STATUS | This kind of dimension contains detailed information about restaurant including the restaurant’s address, email and phone. |
| EMPLOYEE\_DIMENSION | SCD2 | BIG | EMPLOYEE\_ID  FIRST\_NAME  LAST\_NAME  DATE\_OF\_BIRTH  EMAIL  PHONE  DEPARTMENT  RESTAURANT\_ID  JOB\_TITLE  ADDRESS  COUNTRY  CITY  BUILDING  APARTMENT  STATUS | This kind of dimension contains detailed information about employee. To do so, provided the opportunity for dimension Type SCD 2 perfectly partitions history because each detailed version of a dimensional entity is correctly connected to the span of fact table records for which that version is exactly correct. |
| PAYMENT\_METHOD\_DIMENSION | SCD1 | SMALL | PAYMENT\_METHOD\_ID  PAYMENT\_METHOD \_NAME  STATUS | This kind of dimension contains information about the payment method used. |
| DIM\_GEN\_PERIOD | SCD2 | BIG | PERIOD\_ID  VALID\_FROM  VALID\_TO  PROMOTIONS\_ID  DECRIPTION | A specific type of dimension that allows grouping facts based on logic (the duration of product discounts). |
| DATE\_DIMENSION | SCD1 | BIG | DATE\_ID  DAY\_ID  WEEK\_ID  MONTHS\_ID  QUARTER\_ID  YEAR\_ID | This kind of information contains information about days, weeks, months, quarters and years. |

**Task 7 - Solution concept – Add: Chapter Dimensions Hierarchies**

**DATE\_DIMENSION**

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAY | DAY | Store all days at the week | DAY\_ID |
| WEEK | WEEK | Store all weeks at the month | WEEK\_ID |
| MONTH | MONTH | Store all months at the year | MONTH\_ID |
| YEAR | YEAR | Store all years | YEAR\_ID |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAY | DAY | Store all days at the month | DAY\_ID |
| MONTH | MONTH | Store all months at the quarter | WEEK\_ID |
| QUARTER | QUARTER | Store all quarters at the year | QUARTER\_ID |
| YEAR | YEAR | Store all years | YEAR\_ID |

**Hierarchy DAY-QUARTER-YEAR**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAY | DAY | Store all days at the quarter | DAY\_ID |
| QUARTER | QUARTER | Store all quarters at the year | QUARTER\_ID |
| YEAR | YEAR | Store all years | YEAR\_ID |

**Hierarchy DAY-WEEKS-YEAR**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| DAY | DAY | Store all days at the quarter | DAY\_ID |
| WEEKS | WEEKS | Store all weeks at the year | QUARTER\_ID |
| YEAR | YEAR | Store all years | YEAR\_ID |

**GEO\_LOCATIONS\_DIMENSION**

**Hierarchy COUNTRY – REGION – GEO\_GROUP – GEO\_SUB\_GROUP**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| COUNTRY | GEO\_COUNTRY | Store all countries for each region | GEO\_COUNTRY\_ID |
| REGION | GEO\_REGION | Store all regions for each geo\_group | GEO\_REGION\_IG |
| GEO\_GROUP | GEO\_GROUP | Store all geo\_groups for each geo\_sub\_group | GEO\_GROUP\_ID |
| GEO\_SUB\_GROUP | GEO\_SUB\_GROUP | Store all geo\_sub\_groups | GEO\_SUB\_GROUP\_ID |

**DISH\_DIMENSION**

**Hierarchy NAME – CATEGORY**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| NAME | NAME | Store all dishes for each category | DISH\_ID |
| CATEGORY | CATEGORY | Store all categories | CATEGORY\_ID |

**ENPLOYEE\_DIMENSION**

**Hierarchy EMPLOYEE – DEPARTMENT**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| EMPLOYEE | EMPLOYEE | Store all employees for each department | EMPLOYEE\_ID |
| DEPARTMENT | DEPARTMENT | Store all departments | DEPARTMENT \_ID |

**Hierarchy JOB\_TITLE – DEPARTMENT**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | LEVEL\_CODE | LEVEL\_DESC | LEVEL\_NATURAL\_KEY |
| JOB\_TITLE | JOB\_TITLE | Store all job\_titles for each department | JOB\_TITLE\_ID |
| DEPARTMENT | DEPARTMENT | Store all departments | DEPARTMENT \_ID |

**Task 8 - Solution concept – Add: Chapter Facts Aggregations**

Facts aggregations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Code | Table Name | Additive | Description |
| Total amount of paid orders | ORDERS\_AMOUNT | ORDER\_FACT | + | Calculate total amount of orders in the selected period or restaurant, city, country and atc or pay method or dilevery (profit) |
| Total number of paid orders | ORDERS\_NUMBER | ORDER\_FACT | + | Calculate total amount of orders in the selected period or restaurant, city, country and atc or pay method or dilevery ( visit statistics) |
| Quantity of each paid dish | DISH\_QUANTITY | ORDER\_FACT | + | Calculate quantity of each paid dish in the selected period or restaurant, city, country and atc or pay method or dilevery |
| Quantity of paid dishes in each category | DISH\_QUANTITY\_IN\_CATEGORY | ORDER\_FACT | + | Calculate quantity of paid dishes in each category in the selected period or restaurant, city, country and atc or pay method or dilevery |
| Average order amount | AVG\_ORDER\_AMOUNT | ORDER\_FACT | - | Calculate average order amount in each category in the selected period or restaurant, city, country and atc or pay method or dilevery |