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| EPAM Systems, RD Dep. |
| MTN.BI.07 <Title> |

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| REVISION HISTORY | | | | | |
| Ver. | Description of Change | Author | Date | Approved | |
| Name | Effective Date |
| 1.0 | Initial status | [Kiryl Bucha](mailto:Kiryl_Bucha@epam.com) | 12-JAN-2012 |  |  |
| 2.0 | Updated in accordance with renewed content | [Elias Nema](mailto:Elias_Nema@epam.com) | 20-JAN-2014 |  |  |
| 3.0 | Report on task | Hanna Klimovich | 02-DEC-2017 |  |  |

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# Create package to load the Fact Table from the staging (BL\_3NF) to BL\_DM (star) layer

The Main Task is to create independent package[s] to load your fact table from BL\_3NF to BL\_DM layer, according to your DWH concept that was developed on Module 6 Introduction to DWH.

# Task Results

Create required objects:

* Create all required fact table objects on BL\_DM Layer (FCT\_...).
* Grant all required privileges to BL\_CL (Cleansing Layer).
* Create packages to load fact data (one package = one fact table) on BL\_CL.
* Prepare document with description of your load and screenshot of data in the Fact Table.
* Test Procedure for Repeatable execution (it should produce same consistent results each time on a same source data).

Script to load fact table:

/\*\*===============================================\*\

Name...............: f\_flight

Contents...........: fact creation

Author.............: Hanna Klimovich

Date...............: 30.11.2017

\\*=============================================== \*/

---DROP TABLE f\_flight;

execute pckg\_drop.DROP\_Proc('f\_flight','TABLE');

CREATE TABLE f\_flight

(

f\_YEAR NUMBER NOT NULL,

f\_MONTH NUMBER NOT NULL,

DAY\_OF\_MONTH NUMBER NOT NULL,

DAY\_OF\_WEEK NUMBER,

FL\_DATE DATE NOT NULL,

UNIQUE\_CARRIER VARCHAR2(**200** CHAR),

AIRLINE\_ID NUMBER,

CARRIER VARCHAR2(**10** CHAR) NOT NULL,

TAIL\_NUM VARCHAR2(**20** CHAR)NOT NULL,

FL\_NUM NUMBER NOT NULL,

ORIGIN\_AIRPORT\_ID NUMBER,

ORIGIN\_AIRPORT\_SEQ\_ID NUMBER,

ORIGIN\_CITY\_MARKET\_ID NUMBER,

ORIGIN VARCHAR2(**8** CHAR),

ORIGIN\_CITY\_NAME VARCHAR2(**200** CHAR),

ORIGIN\_STATE\_ABR VARCHAR2(**5** CHAR),

ORIGIN\_STATE\_NM VARCHAR2(**200** CHAR),

ORIGIN\_WAC NUMBER,

DEST\_AIRPORT\_ID NUMBER,

DEST\_AIRPORT\_SEQ\_ID NUMBER,

DEST\_CITY\_MARKET\_ID NUMBER,

DEST VARCHAR2(**8** CHAR),

DEST\_CITY\_NAME VARCHAR2(**200** CHAR),

DEST\_STATE\_ABR VARCHAR2(**5** CHAR),

DEST\_STATE\_NM NUMBER NOT NULL,

CRS\_DEP\_TIME NUMBER,

DEP\_TIME NUMBER NOT NULL,

DEP\_DELAY NUMBER,

DEP\_DELAY\_NEW NUMBER,

DEP\_DEL15 NUMBER,

CRS\_ARR\_TIME NUMBER,

ARR\_TIME NUMBER,

ARR\_DELAY NUMBER,

ARR\_DELAY\_NEW NUMBER,

ARR\_DEL15 NUMBER,

CRS\_ELAPSED\_TIME NUMBER,

ACTUAL\_ELAPSED\_TIME NUMBER,

AIR\_TIME NUMBER,

FLIGHTS NUMBER,

DISTANCE NUMBER,

DISTANCE\_GROUP NUMBER,

PLANE\_ID NUMBER NOT NULL,

PILOT\_ID NUMBER NOT NULL

) ;

INSERT INTO F\_FLIGHT

SELECT

f\_YEAR ,

f\_MONTH ,

DAY\_OF\_MONTH ,

DAY\_OF\_WEEK ,

FL\_DATE ,

UNIQUE\_CARRIER ,

AIRLINE\_ID ,

CARRIER ,

TAIL\_NUM ,

FL\_NUM ,

ORIGIN\_AIRPORT\_ID ,

ORIGIN\_AIRPORT\_SEQ\_ID ,

ORIGIN\_CITY\_MARKET\_ID ,

ORIGIN ,

ORIGIN\_CITY\_NAME ,

ORIGIN\_STATE\_ABR ,

ORIGIN\_STATE\_NM ,

ORIGIN\_WAC ,

DEST\_AIRPORT\_ID ,

DEST\_AIRPORT\_SEQ\_ID ,

DEST\_CITY\_MARKET\_ID ,

DEST ,

DEST\_CITY\_NAME ,

DEST\_STATE\_ABR ,

DEST\_STATE\_NM ,

CRS\_DEP\_TIME ,

DEP\_TIME ,

DEP\_DELAY ,

DEP\_DELAY\_NEW ,

DEP\_DEL15 ,

CRS\_ARR\_TIME ,

ARR\_TIME ,

ARR\_DELAY ,

ARR\_DELAY\_NEW ,

ARR\_DEL15 ,

CRS\_ELAPSED\_TIME ,

ACTUAL\_ELAPSED\_TIME ,

AIR\_TIME ,

FLIGHTS ,

DISTANCE ,

DISTANCE\_GROUP ,

PLANE\_ID ,

PILOT\_ID

FROM bl\_3nf.ce\_flight;

ALTER TABLE f\_flight ADD CONSTRAINT carrier\_id\_FK FOREIGN KEY (carrier) REFERENCES dm\_airlines(icao);

ALTER TABLE f\_flight ADD CONSTRAINT pilot\_id\_FK FOREIGN KEY (pilot\_id) REFERENCES dm\_pilot (PILOT\_ID\_SEQ);

ALTER TABLE f\_flight ADD CONSTRAINT plane\_id\_FK FOREIGN KEY (plane\_id) REFERENCES dm\_plane (Plane\_ID\_SEQ);

ALTER TABLE f\_flight ADD CONSTRAINT state\_id\_FK FOREIGN KEY (DEST\_STATE\_NM) REFERENCES dm\_location (state\_num);

--ALTER TABLE f\_flight ADD CONSTRAINT PK\_CONST PRIMARY KEY(FL\_DATE,carrier,pilot\_id,plane\_id,DEST\_STATE\_NM);

COMMENT ON TABLE f\_flight

IS

'Table Content: Describe content of a table.

Refresh Cycle/Window: This is a fact table!';

--GRANT SELECT ON f\_flight TO new\_user;

COMMIT;

Loading from batch file:

