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| EPAM Systems, RD Dep. |
| MTN.BI.07 Data Warehouse Architecture |

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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 | Added information according to the task | [Hanna](mailto:Elias_Nema@epam.com) Klimovich | 10-NOV-2017 |  |  |

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# Data Modeling Task

As far as TIME is very special dimension, it would not be populated from the normalized layer. Instead it would be populated once in a lifetime. Your task would be to create script for DIM\_TIME\_DAY (\_MONTH, \_MINUTE dependent on the time granularity your business process need) and to populate it with data.

SQL:

CREATE TABLE DateDim as

select sysdate+rownum-365\*10 as FullDate, extract(month from sysdate+rownum-365\*10) as month, extract(year from sysdate+rownum-365\*10) as year, extract(day from sysdate+rownum-365\*10)as day,

to\_char(sysdate+rownum-365\*10-1, 'D') as DayofWeek,

to\_char(sysdate+rownum-365\*10, 'DAY', 'NLS\_DATE\_LANGUAGE=ENGLISH') AS D\_Eng, to\_char(sysdate+rownum-365\*10, 'DAY', 'NLS\_DATE\_LANGUAGE=RUSSIAN') AS D\_Rus,

to\_char(sysdate+rownum-365\*10, 'DAY', 'NLS\_DATE\_LANGUAGE=SPANISH') AS D\_Esp, to\_char(sysdate+rownum-365\*10, 'DAY', 'NLS\_DATE\_LANGUAGE=GERMAN') AS D\_Ger,

to\_char(sysdate+rownum-365\*10, 'MONTH', 'NLS\_DATE\_LANGUAGE=ENGLISH') AS M\_Eng, to\_char(sysdate+rownum-365\*10, 'MONTH', 'NLS\_DATE\_LANGUAGE=RUSSIAN') AS M\_Rus,

to\_char(sysdate+rownum-365\*10, 'MONTH', 'NLS\_DATE\_LANGUAGE=SPANISH') AS M\_Esp, to\_char(sysdate+rownum-365\*10, 'MONTH', 'NLS\_DATE\_LANGUAGE=GERMAN') AS M\_Ger,

to\_char(sysdate+rownum-365\*10, 'DDD') AS DayofYear, to\_char(sysdate+rownum-365\*10, 'IW') AS WeekY, to\_char(sysdate+rownum-365\*10, 'Q') AS Quarter,

to\_char(sysdate+rownum-365\*10, 'W') AS WeekofMonth

from dual

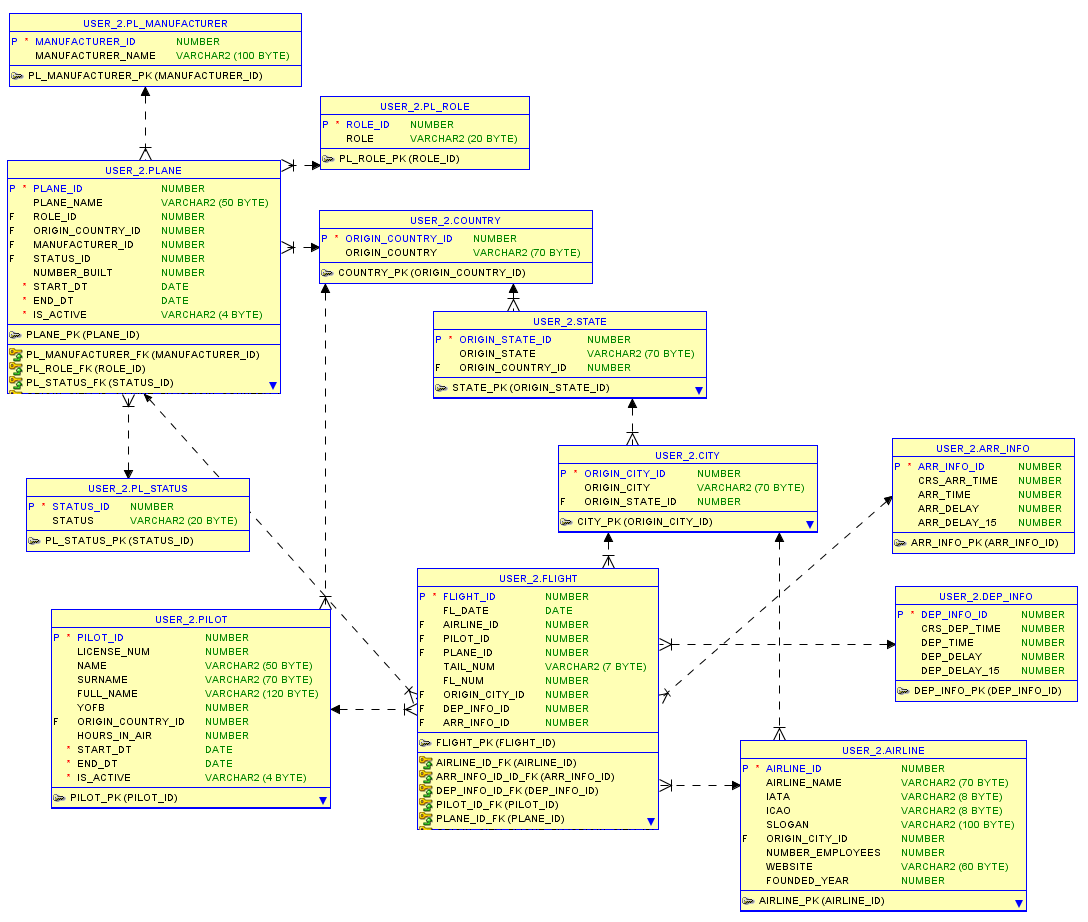
connect by rownum <= 365\*100;

# Analytical task

Create high-level data-model for the 3NF level. Use a previously created dimensional model as a reference.

* 3NF layer of your Data Warehouse for your business.

3NF layer:



# Results

Result of this lab work should be:

* Scripts for creating a time dimension.
* Chapter in document with the 3NF model and design process.