

HOSPITAL BI WORKSHOP 2 EXERCISES

Health Facilities

- a) Identify the data store(s) where your source data for KPIs and influencing factors can be found.
- b) Install/use an administration tool for accessing the source data stores.
- c) Select some (e.g. 1-3) sample KPI's and influencing factors for the workshop exercises.
- d) Identify the elements (tables, fields, etc.) of the physical source data that contain the sample KPIs and influencing factors. Identify relationships between the tables and elements.
- e) Design a multidimensional (e.g. star) data model for the analytics reflecting the KPIs and other factors. Identify relationships between the dimensional data model elements. If you decide to experiment with a separate BI database, create it based on your dimensional model.
- f) Identify the data cleaning (source data), standardization and transformation (from source data to analytics data store) requirements.
- g) Create a separate limited test BI data source by extracting the data representing the selected KPIs and influencing factors from source databases into csv-files, excel sheets or your BI database using tools of your choice (or manually entering the data). This way we avoid corrupting the production database when completing the exercises.
- h) Clean and anonymize the test data. Cleaning can be done during the extraction or afterwards inside the test data source. **Participants are encouraged to share the anonymized test data and sample KPIs with workshop teachers in order to get better and more personalized guidance when completing the exercises.**
- i) Create views in test source database according to needs in order to get combined information into the analysis models.

Universities

- a) Prepare a table of contents of lecture(s) about data architecture for health facility BI, data modelling, cleaning, transformation and loading onto modelling platform.
- b) Write 2-3 short research proposals on data architecture for health facility BI and respective data modelling, cleaning and transformation.

Health Informatics Businesses

- a) Draft some product and service ideas regarding data modelling, cleaning and transformation with respect to hospital BI.