KNOWDIVE

KGE - Knowledge Graph Engineering

Healthcare
Electronic Health Records (EHR)

KGE 2023 Project Proposal

Contents

Contents

Project Objective

- This project considers **Europe** as the environment in which the integration of heterogeneous *healthcare data* from European countries with different healthcare systems is considered.
- Such kind of data carry the information about *hospitals, patient, condition, prescription, drugs, doctors*, and other information supporting healthcare services in Europe.
- The aim of the project is to create a knowledge base able to be exploited in clinics, pharmacies, hospitals and research institutions by different healthcare actors. This objective will be achieved through a data integration process that will create a healthcare Knowledge Graph (KG) integrating data from different sources.

Contents

Purpose

The resultant healthcare KG can be used to provide a service (for example, for different healthcare actors) which can facilitate citizens to handle (their own) healthcare data, in a context in which the citizens moves around Europe. This purpose can be described, in form of user request, as follow:

> *"A service which facilitates citizens to handle (their own) healthcare data, in a context in which the citizens moves around Europe."*

Contents

Data Resources

The data sources provided to achieve the project's objective are:

- **SYNTHEA** :
  SYNTHEA

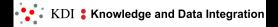- **EMRBOTS** :
  EMRBOTS

- **FHIR Smart Data** :
  FHIR Smart Data

Contents

Schema Resources

The reference schemas provided to achieve the project's objective are:

- **FHIR - Levels - 3,4,5 (for modelling healthcare)** :
  HL7-FHIR

- **schema.org (for modelling common concepts)** :
  schema.org

- **iCal (for modelling time)** :
  https://www.rfc-editor.org/rfc/rfc5545

- **INSPIRE (for modelling space)** :
  INSPIRE

- **DCAT2 (for modelling metadata)** :
  https://www.w3.org/TR/vocab-dcat-2/

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