



KGE - Knowledge Graph Engineering

Museum Visiting

KGE 2023 Project Proposal

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Project Objective

- This project considers a museum as the region in which heterogeneous data about visitors' profiles and visiting behaviors should be integrated by building a Knowledge Graph (KG).
- The related data provide the information about visitors' profiles and visiting behaviors in a museum, e.g., visitors, parts of the museum, dwell time in different parts of museum, and other visiting behavior information in the museum.
- The project aims to create a KG representing museum visitors' profiles and visiting behaviors. This objective will be achieved through a data integration process that will generate a visiting Knowledge Graph (KG) integrating visitors' data in a museum from various data sources.

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Purpose

The resultant KG can organize a sequence of KGs representing **visitors' profiles** and **visiting behaviors** for different parts of the museum. This sequence can be analyzed to guide visitors to the most interesting parts of the museum and also help museum owners improve their services. This purpose can be described, in the form of a museum request, as follow:

"A service that helps a museum acquire visitors' profiles and preferences for parts of the museum."

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Data Resources

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

- Museum visiting data involving the Trient Consulting Group: The people who use the data have to sign an NDA document.
- Possibly new datasets, as we may discover when building the stream of KGs.

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Schema Resources

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

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

Schema.org (for modelling general concepts, e.g., person and place):

https://schema.org/docs/full.html

■ LIDO (for modelling museum objects) :

https://cidoc.mini.icom.museum/working-groups/lido/lido-overview/lido-schema/

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Project Involving Institutions and People

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