

Generating ontology conceptualization and pattern libraries with Chowlk

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Abstract

Ontology conceptualization is a key activity as it drives the final implementation. Usually, developers generate graphical representations to carry out this activity as it is more convenient to provide an overall idea of the model, and it is a powerful tool to communicate with domain experts. While the conceptualization might be independent of the implementation language, it is advisable to use a notation as close as possible to the ontology implementation language to avoid ambiguity and reduce effort during the implementation. To this end, the Chowlk framework (<https://chowlk.linkeddata.es/>) provides a UML-based notation (published at VOILA23 <https://ceur-ws.org/Vol-3508/paper2.pdf>) and a converter (published at ESWC22 https://doi.org/10.1007/978-3-031-06981-9_20) in order to conceptualize and implement OWL ontologies graphically. This tutorial's learning outcomes are: 1) to know the Chowlk framework resources available; 2) to know how to use the Chowlk notation to represent OWL ontologies and the converter to generate the ontology OWL code; and 3) to learn how to use draw.io to generate their own patterns libraries. The tutorial will be organized in 2 sessions, the first one dedicated to explain the resources available and how to use them (learning outcomes 1 and 2) and the second dedicated to the creation of ontology pattern libraries (learning outcome 3).

Keywords

ontology, ontology conceptualization, ontology notation, ontology design pattern

Acknowledgments

This work has been supported by Horizon 2020 research and innovation programme under grant agreement and 101016854 (AURORAL) and by the Madrid Government (Comunidad de Madrid-Spain) under the Multiannual Agreement with the Universidad Politécnica de Madrid in the Excellence Programme for University Teaching Staff, in the context of the V PRICIT (Regional Programme of Research and Technological Innovation).

Proceedings of the Joint Ontology Workshops (JOWO) - Episode X: The Tukker Zomer of Ontology, and satellite events co-located with the 14th International Conference on Formal Ontology in Information Systems (FOIS 2024), July 15-19, 2024, Enschede, The Netherlands

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