Basic Multi-Level Modeling in RDF and SHACL Tutorial

Participation in this questionnaire is voluntary and anonymous. The results will be published (in aggregated form) as part of scientific publications and my doctoral thesis. Conclusions about your person are neither intended nor possible. Your data will not be passed on to third parties under any circumstances.

There are 19 questions in this survey.

General

From your point of view ... *

Please choose the appropriate response for each item:

	1 - strongly disagree	2	3	4	5	6	7 - strongly agree
I already had experience with multi-level modeling (i.e., modeling with meta classes that define resultant, regularity, and direct properties) before the tutorial.	○	○	○	○	○	○	○
After the tutorial I understood the basics of multi-level modeling.	○	○	○	○	○	○	○
The selected technologies (RDF, SHACL) helped me to improve my understanding of basic multi-level modeling.	○	○	○	○	○	○	○
The interactive work with the DDO-Playground helped me to improve my understanding of basic multi-level modeling.	○	○	○	○	○	○	○
The selected technologies (RDF, SHACL) are suited for multi-level modeling.	○	○	○	○	○	○	○
Multi-level modeling for personalization of JITAIs seems to be a reasonable use case.	○	○	○	○	○	○	○

NASA Task Load Index

How mentally demanding was the task? (0 - very low, 20 - very high) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Mental Demand	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How physically demanding was the task? (0 - very low, 20 - very high) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Physical Demand	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How hurried or rushed was the pace of the task? (0 - very low, 20 - very high) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Temporal Demand	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How successful were you in accomplishing what you were asked to do? (0 - perfect, 20 - failure) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Performance	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How hard did you have to work to accomplish your level of performance? (0 - very low, 20 - very high) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Effort	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How insecure, discouraged, irritated, stressed, and annoyed wereyou? (0 - very low, 20 - very high) *

Please choose the appropriate response for each item:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Frustration	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Task Assessment

In detail, which subtasks could you complete successfully, i.e., reach the expected outcome?

If you successfully completed a subtask, please provide your solution (i.e., SPARQL queries or SHACL shapes) as comment.

Subtask 1: Define a SPARQL query that queries the direct and indirect instances of metaclass CLASS/JITAI/CLASS together with their descriptions and average duration.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

○ Yes

○ No

○ I have not tried it

Make a comment on your choice here:

Subtask 2: Define a SPARQL query that counts for each JITAI class the number of individual JITAI occurrences (considering direct and indirect instances and also considering JITAI classes that have no instances). Use the appropriate meta class in your query.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

○ Yes

○ No

○ I have not tried it

Make a comment on your choice here:

Subtask 3: Define a SPARQL query that selects WalkingJITAI classes (use the appropriate meta class) that are also instances of meta class byIntensity.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Subtask 4: Define a SPARQL query that identifies for each JITAI class the limitations on duration made by SHACL property shapes using sh:minInclusive and sh:maxInclusive.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Subtask 5: Add SHACL property shapes for minIntensity and for maxIntensity at the appropriate powertype, specifying that minIntensity and maxIntensity have multiplicity 0..1 and datatype integer.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Subtask 6: Add SHACL rules for transforming a JITAI class' value for minIntensity and maxIntensity into property shapes with sh:minInclusive and sh:maxInclusive.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Subtask 7: Compute the average intensity avgIntensity as resultant property for each JITAI class by defining a SHACL rule at the appropriate meta class.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment.
*

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Subtask 8: Detect conflicts between minIntensity and maxIntensity within the class hierarchy using SHACL SPARQL-based constraints at the appropriate meta class.

Did you solve this subtask successfully?

If "Yes", please provide your solution as comment. *

❶ Choose one of the following answers
Please choose **only one** of the following:

◯ Yes

◯ No

◯ I have not tried it

Make a comment on your choice here:

Usability Metric for User Experience

From your point of view ... *

Please choose the appropriate response for each item:

	1 - strongly disagree	2	3	4	5	6	7 - strongly agree
The DDO-Playground capabilities meet my requirements.	◯	◯	◯	◯	◯	◯	◯
Using the DDO-Playground is a frustrating experience.	◯	◯	◯	◯	◯	◯	◯
The DDO-Playground is easy to use.	◯	◯	◯	◯	◯	◯	◯
I have to spend too much time correcting things with the DDO-Playground.	◯	◯	◯	◯	◯	◯	◯

Final Feedback

You are invited to give any feedback regarding the tutorial, tasks, DDO-Playground and the survey. This part is not compulsory, but please do not forget to submit the questionnaire. Thank you very much!

What was good?

Please write your answer here:

What was not so good?

Please write your answer here:

What could we have done better?

Please write your answer here:

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Submit your survey.
Thank you for completing this survey.