



VAIMEE
SURPRISING THE FUTURE

Linked Data Platform Technical Report

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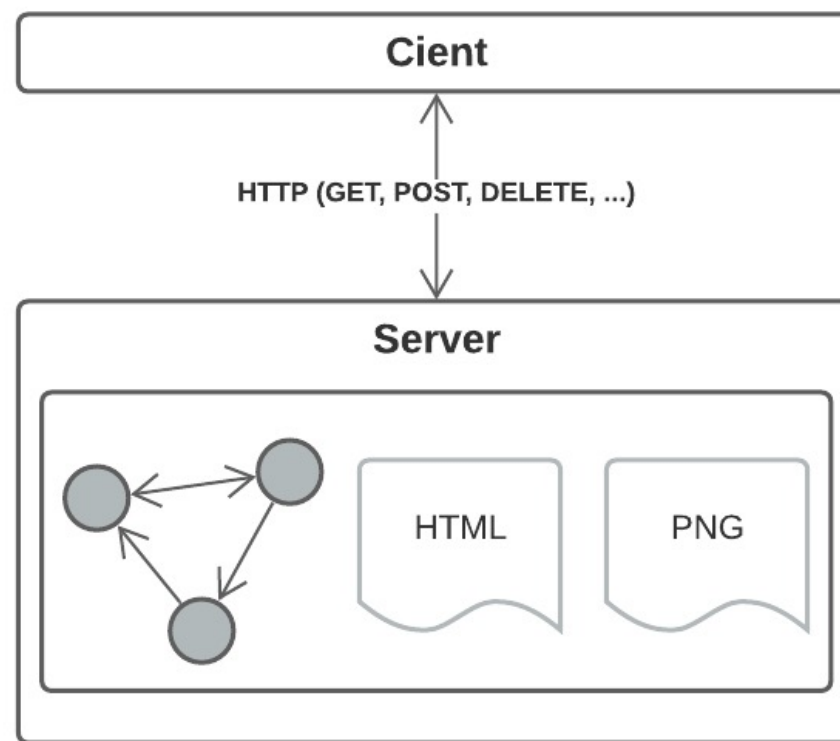


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+ Linked Data Platform

- Linked Data Platform is a specification to use HTTP for CRUD operations on servers that expose their resources as Linked Data.
- Those Linked Data resources can have their states represented using RDF (called LDP-RDF Resources (LDP-RS)) or use other formats (called LDP Non-RDF Resources) such as HTML files or even images (LDP-NR).
- One of the main capabilities of the LDP is to group resources. These groups are called containers





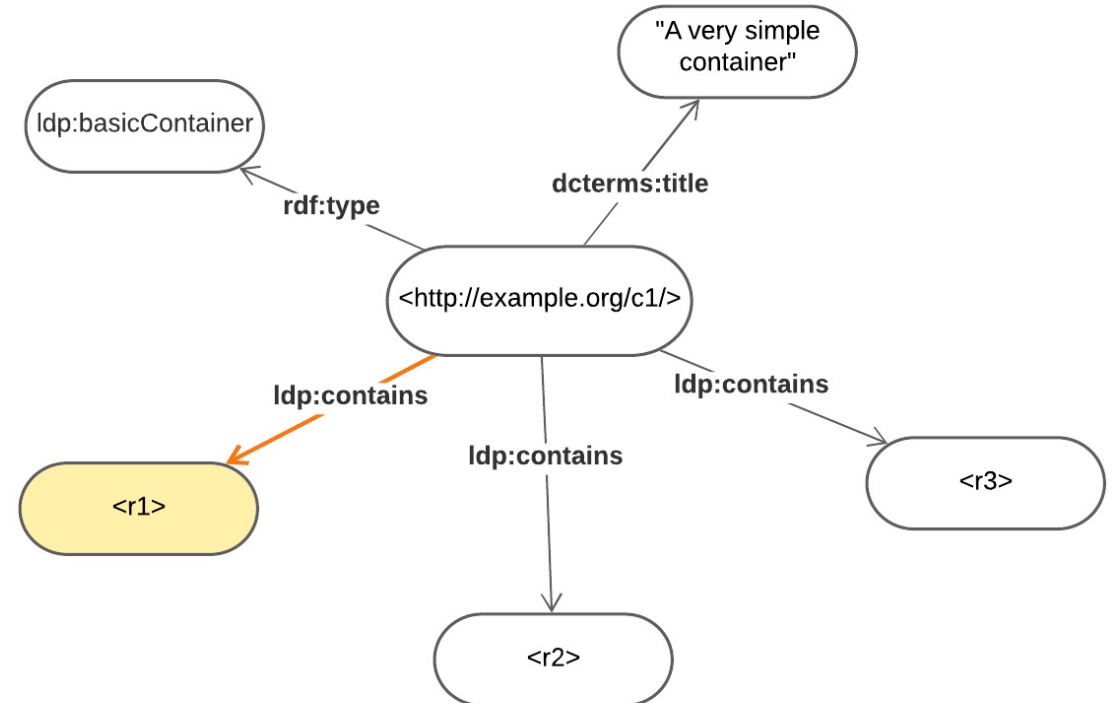
Containers

There are three containers' types:

- Basic container
- Direct container
- Indirect container

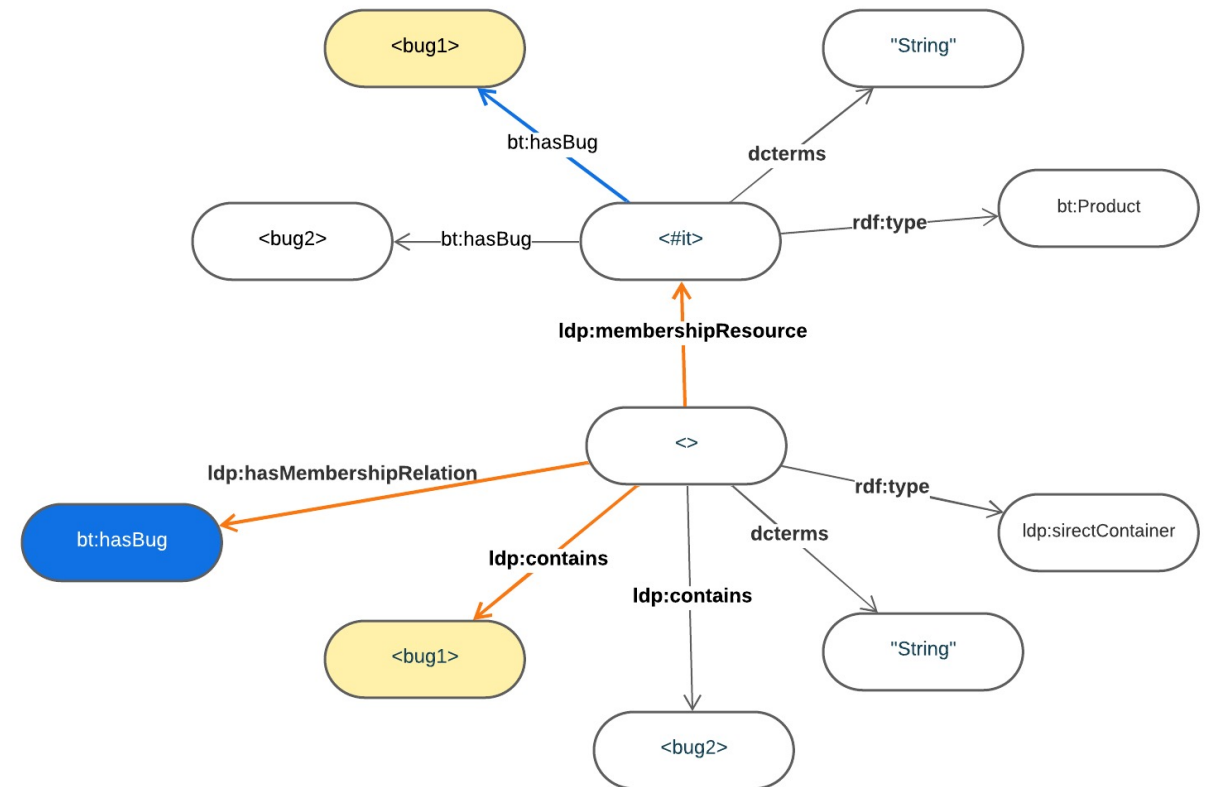
Basic container

- The direct container only specifies the property “ldp:contains” to express a simple containment.
- It is important to note that containers can contain other containers.



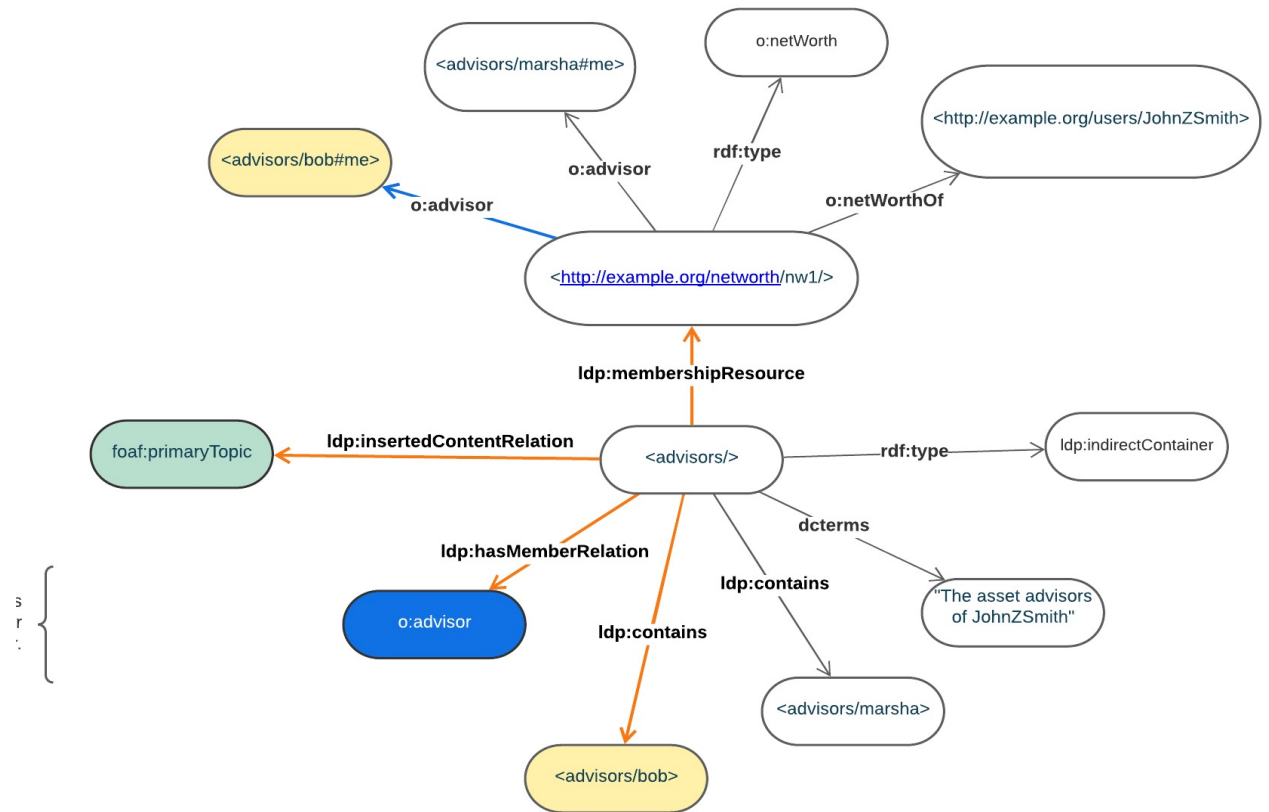
Direct container

- When a more complex scenario comes, it became important to have not only the containment of the container, but which is the resource that the container is managing for.
- Direct Containers add the concept of **membership** and flexibility on how to specify the **membership triples**.



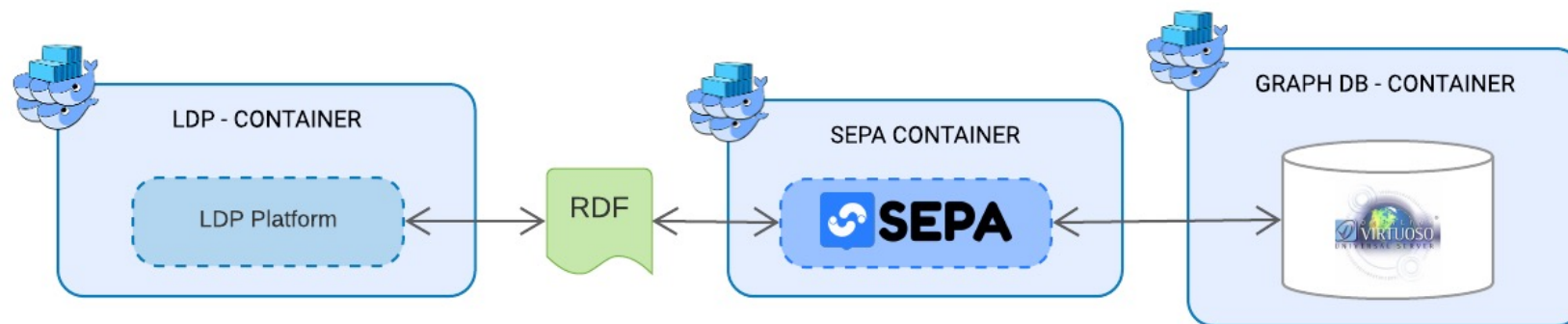
Indirect container

- Similar to the Direct container, the LDP indirect container can express the membership resources.
- Also provides an indirection to add (via a create request) as a member any resource in the form (<>, foaf:primaryTopic, topic-URI) where the topic-URI will be used to create the containment.



Implementation

- Develop a LDP service as an external application.
 - Use Node JS.
 - Use TypeScript.
 - Use Nest JS.



+ Planning and doubts

- Start with a specific vs generic platform?
- Use SPARQL queries to control the life cycle of creation, update, and deletion of the resources as well as the containers?
- Which are the minimum functionalities we can develop (MVP)?
 - Implement support for all types of containers in the first phase?
 - All the HTTP requests will be implemented?
 - Ability to store Non-RDF Resources?



References

- [1] Linked Data Platform 1.0. [Online]. <https://www.w3.org/TR/ldp/#ldpic>
- [2] Linked Data Platform 1.0 Primer. [Online]. <https://www.w3.org/TR/ldp-primer/>
- [3] Introduction to: Linked Data Platform. [Online]. <https://www.dataversity.net/introduction-linked-data-platform/#>