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DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE CODE: DJ19ITL801 **DATE:** 08-02-2024

COURSE NAME: Semantic Web Technology Laboratory **CLASS:** BE IT

EXPERIMENT NO. 3

CO/LO: Apply Semantic Web Technologies in Real World Applications

AIM: To create repository, import RDF data from a file and explore data from the visual graph.

DESCRIPTION OF EXPERIMENT:

RDF is a standard model for data interchange on the Web. RDF has features that facilitate data merging even if the underlying schemas differ, and it specifically supports the evolution of schemas over time without requiring all the data consumers to be changed. RDF extends the linking structure of the Web to use URIs to name the relationship between things as well as the two ends of the link (this is usually referred to as a "triple").

Using this simple model, it allows structured and semi-structured data to be mixed, exposed, and shared across different applications. This linking structure forms a directed, labelled graph, where the edges represent the named link between two resources, represented by the graph nodes. This graph view is the easiest possible mental model for RDF and is often used in easyto-understand visual explanations.

SOFTWARE/TOOLS USED: Graph DB

INPUT DATASET: Australian Local Government Dataset [2]

PROCEDURE:

1. Create a repository and activate it.
2. Download a .ttl RDF serialization.
3. Inspect the class hierarchy, visual graphs and gain an insight on what the dataset contains.

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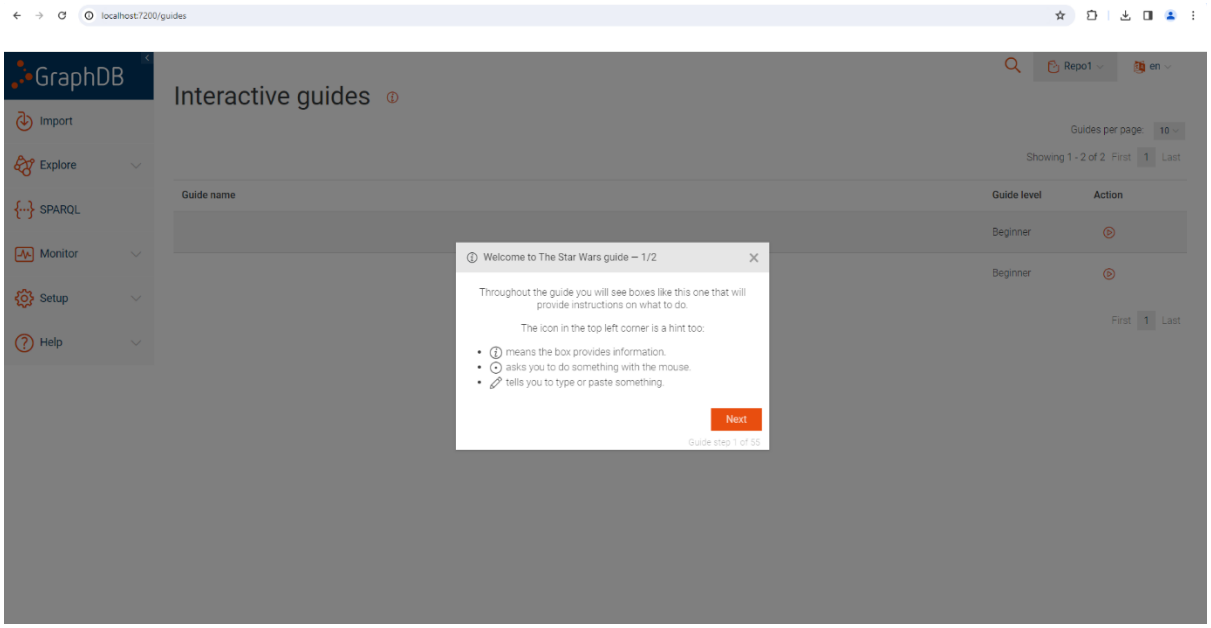
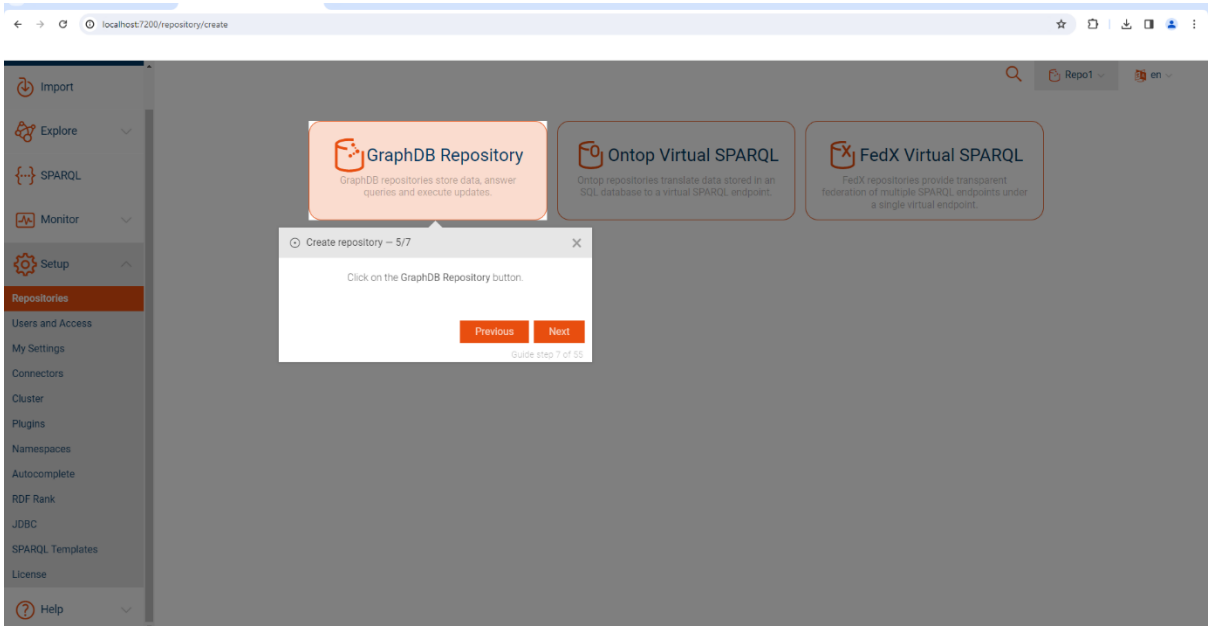
OBSERVATIONS:





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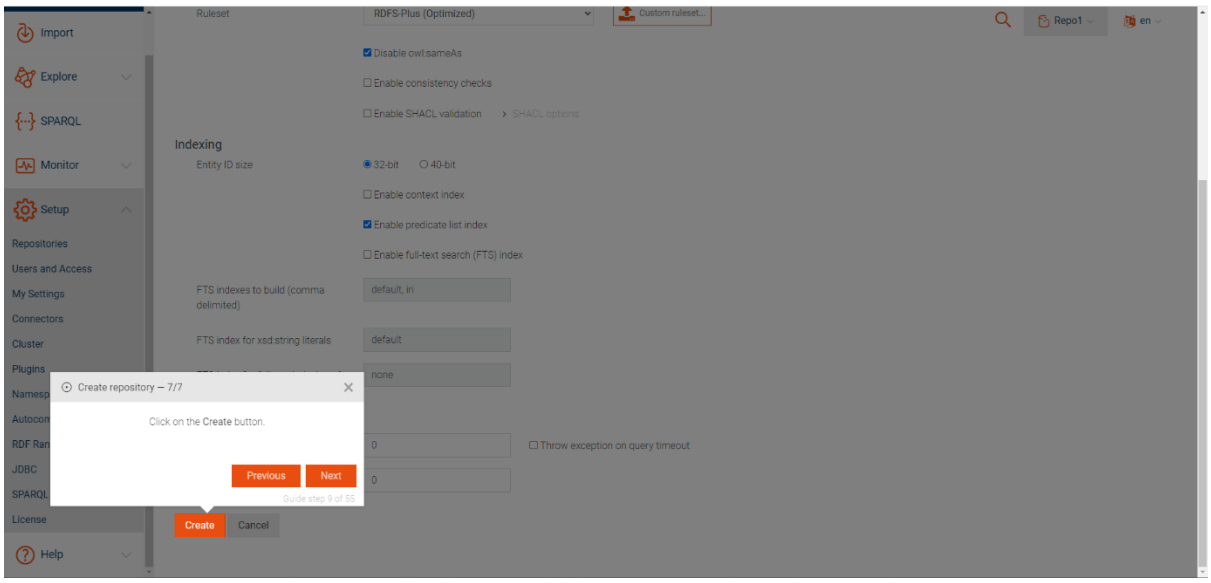

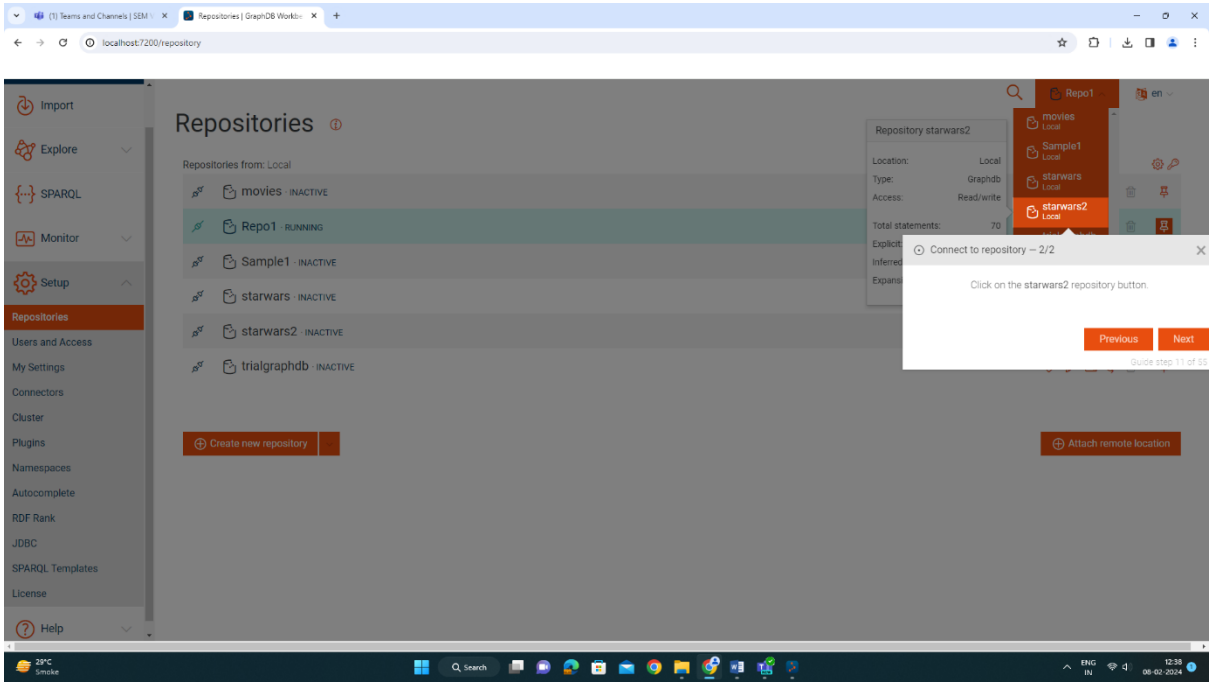

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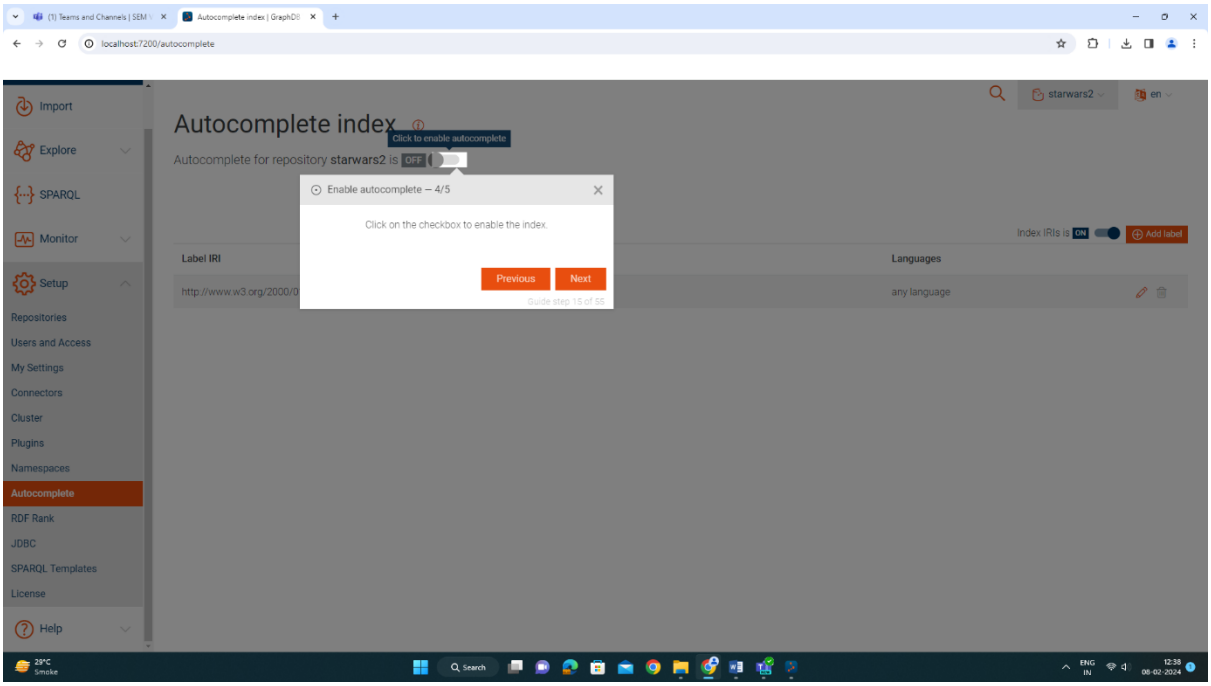

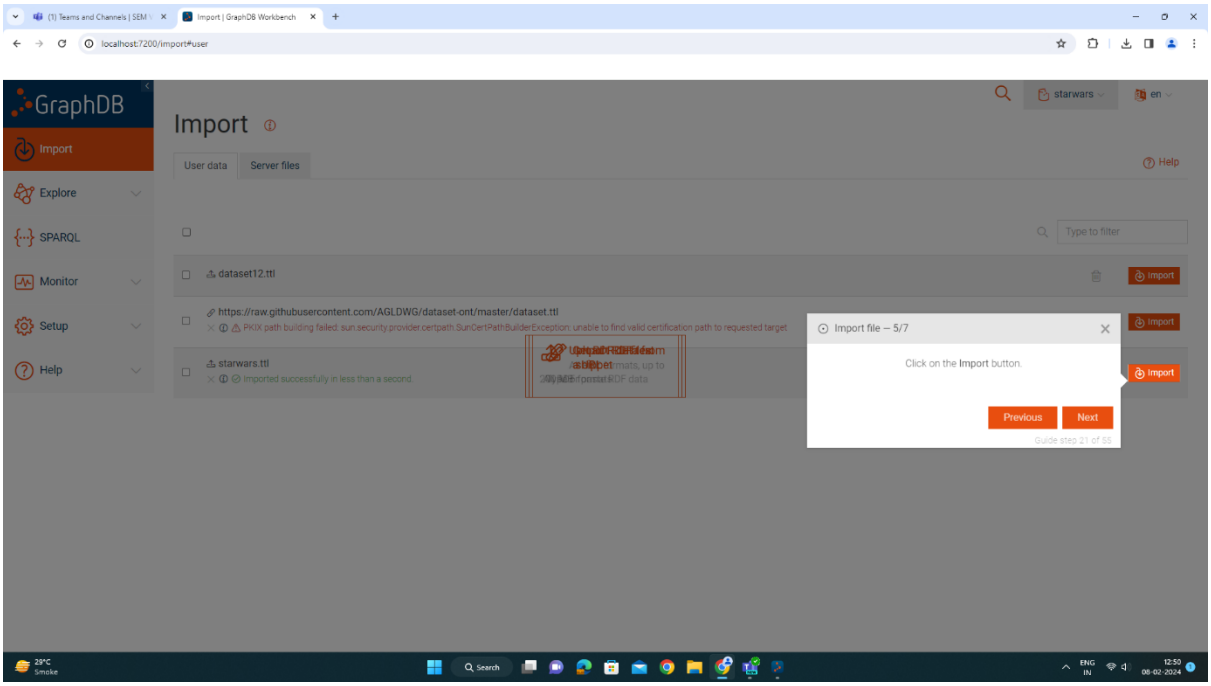

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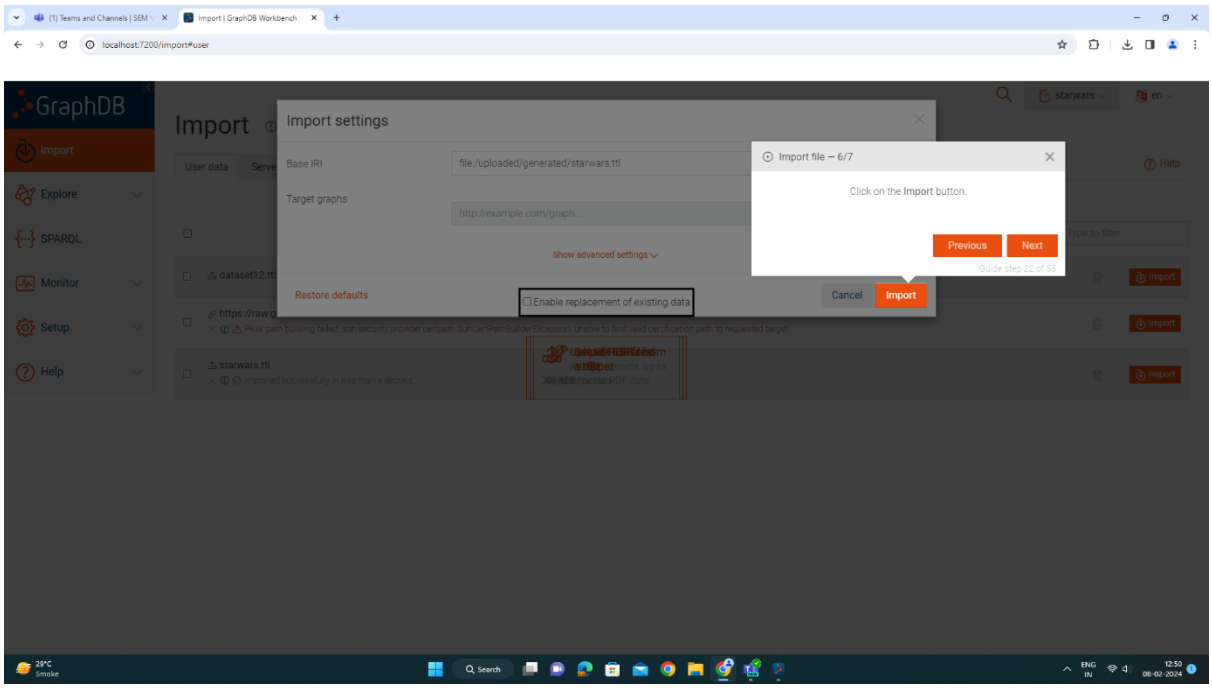

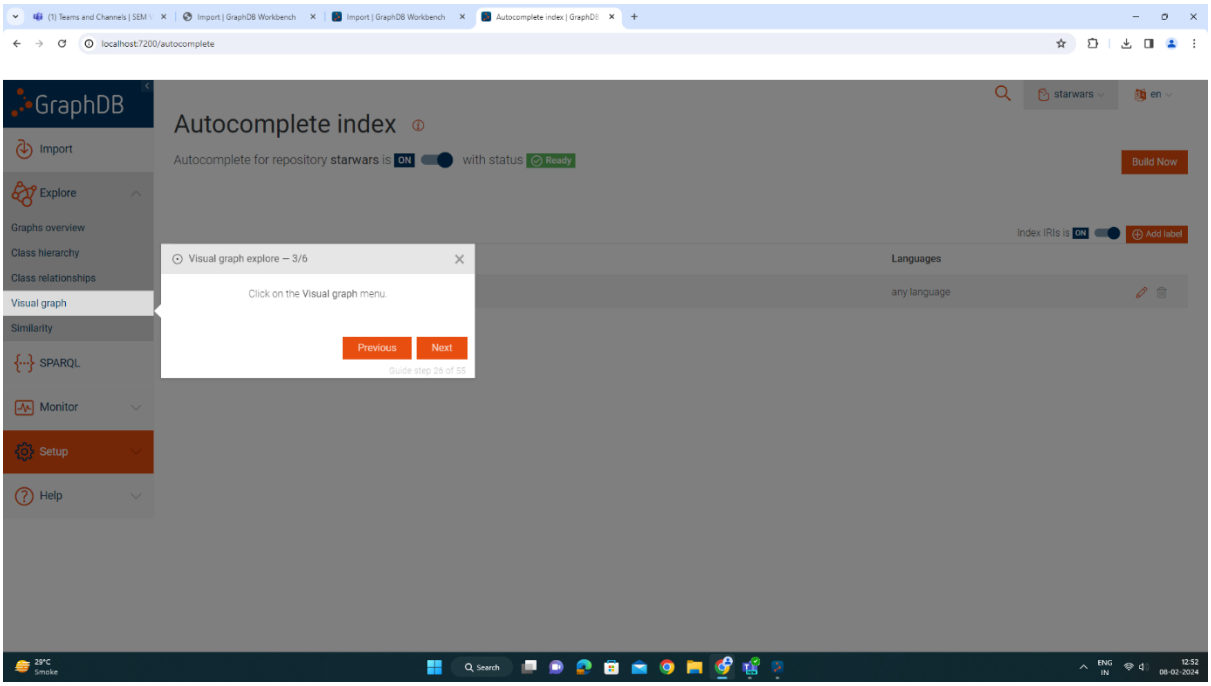

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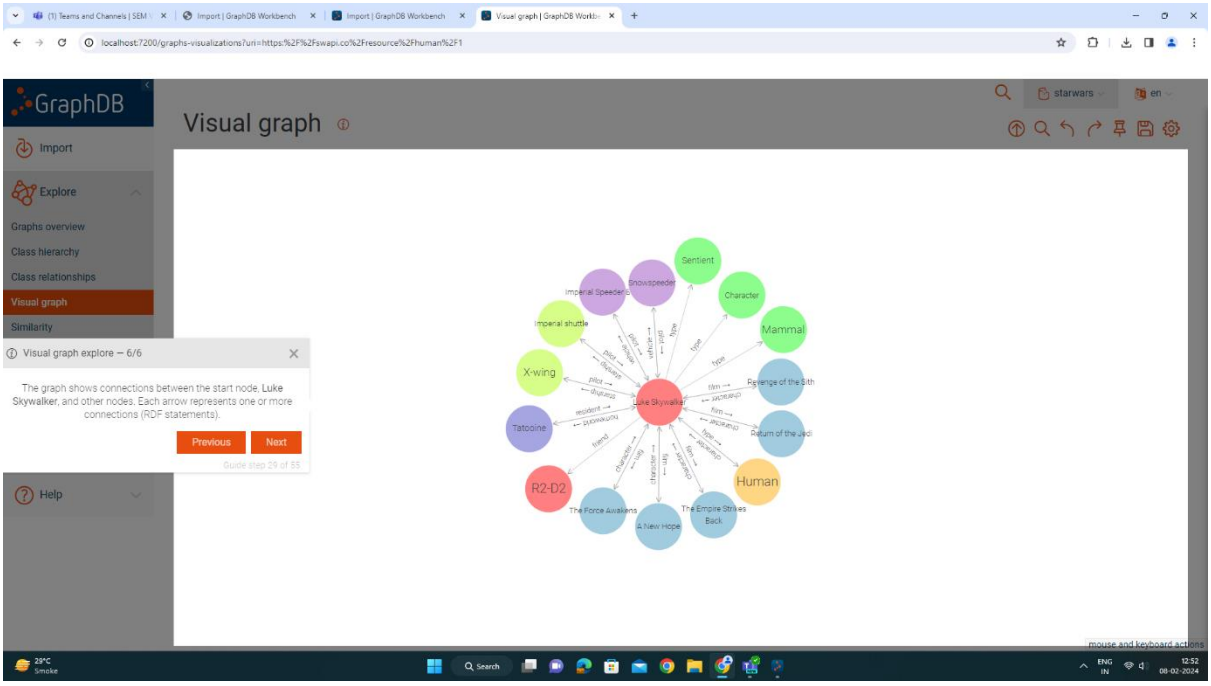

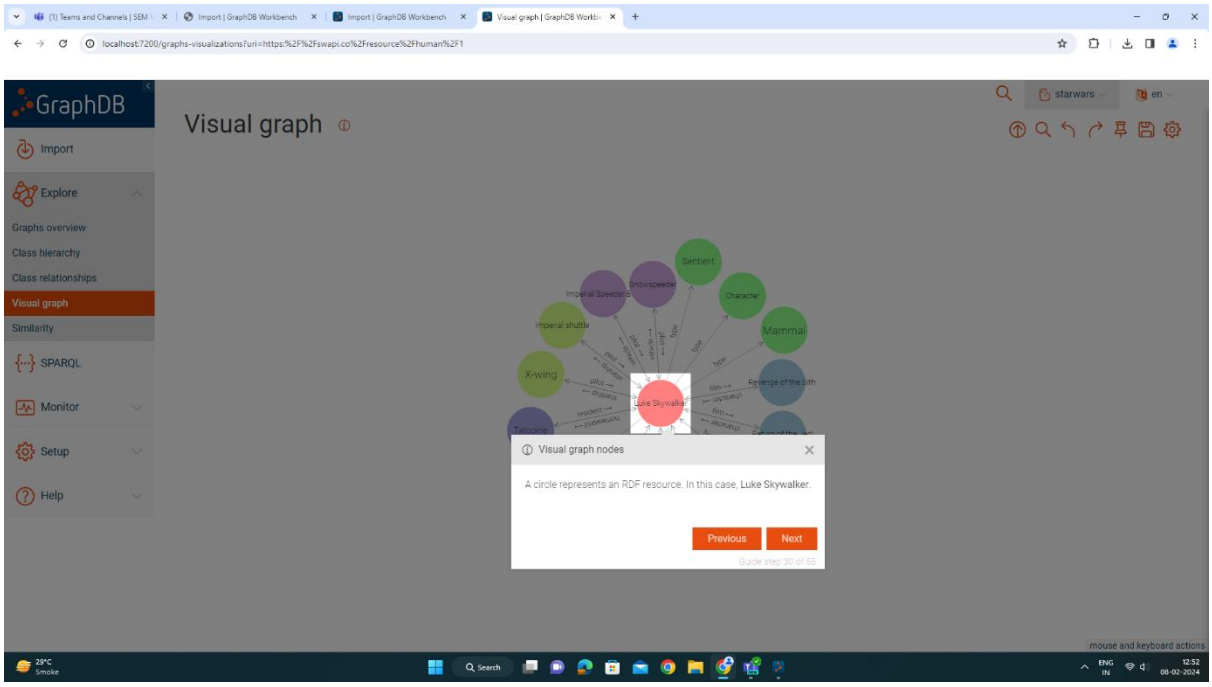

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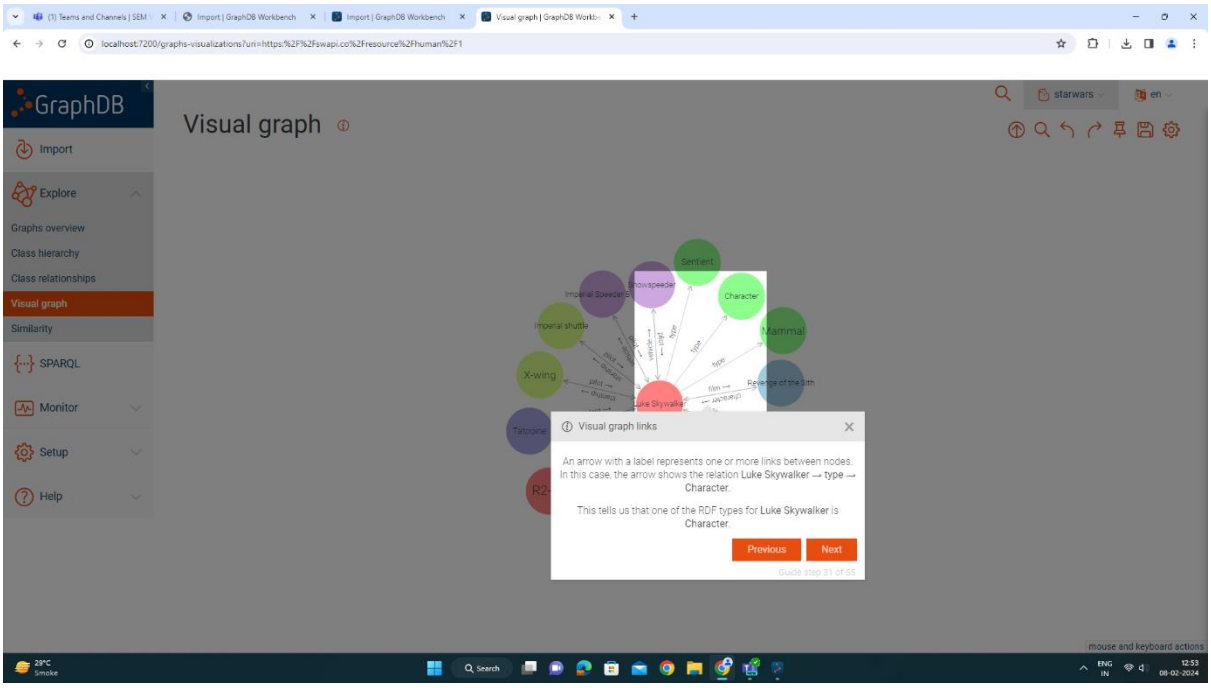

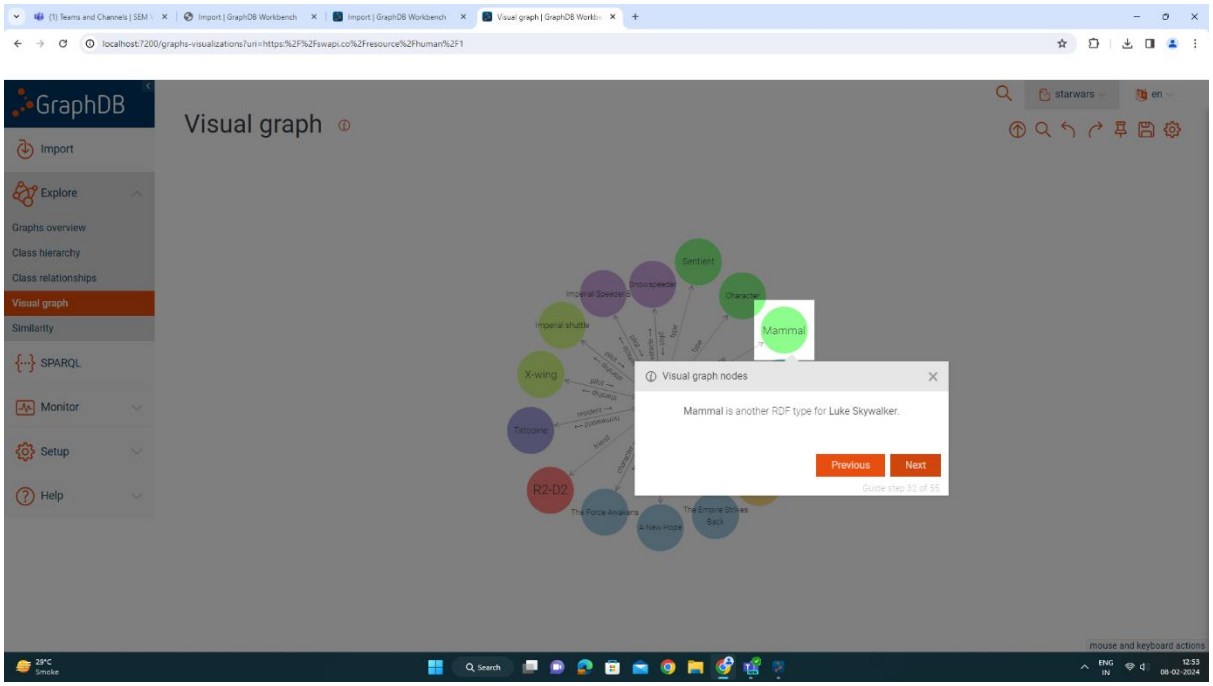

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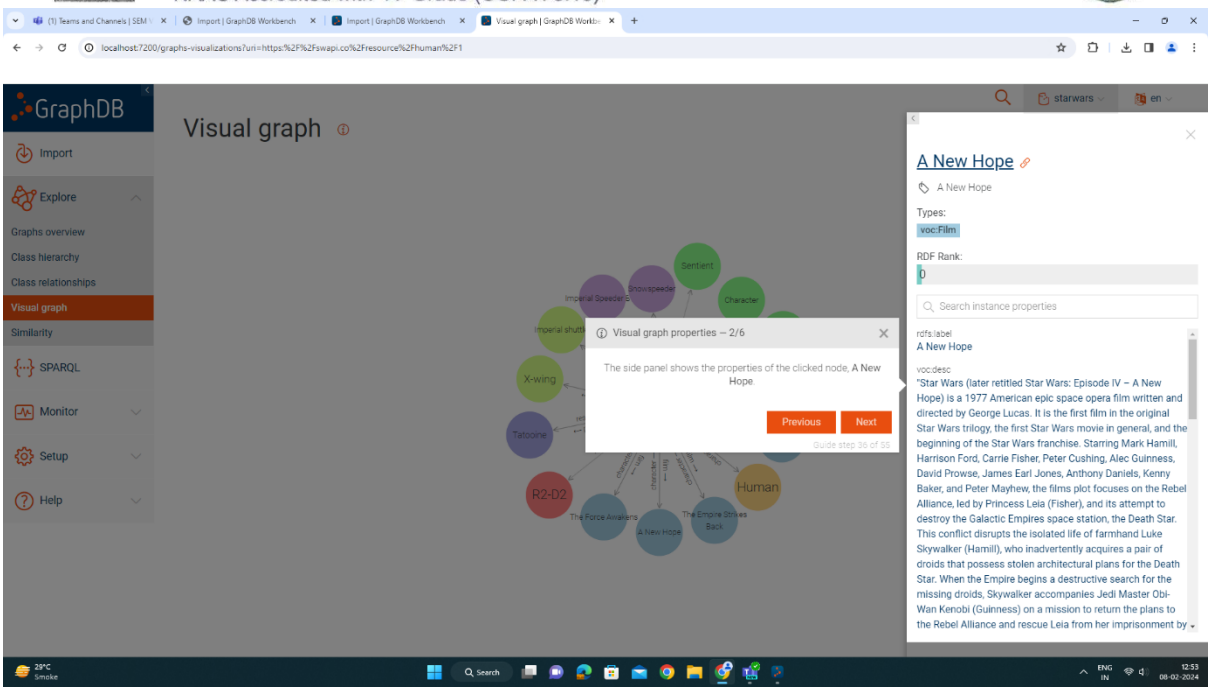

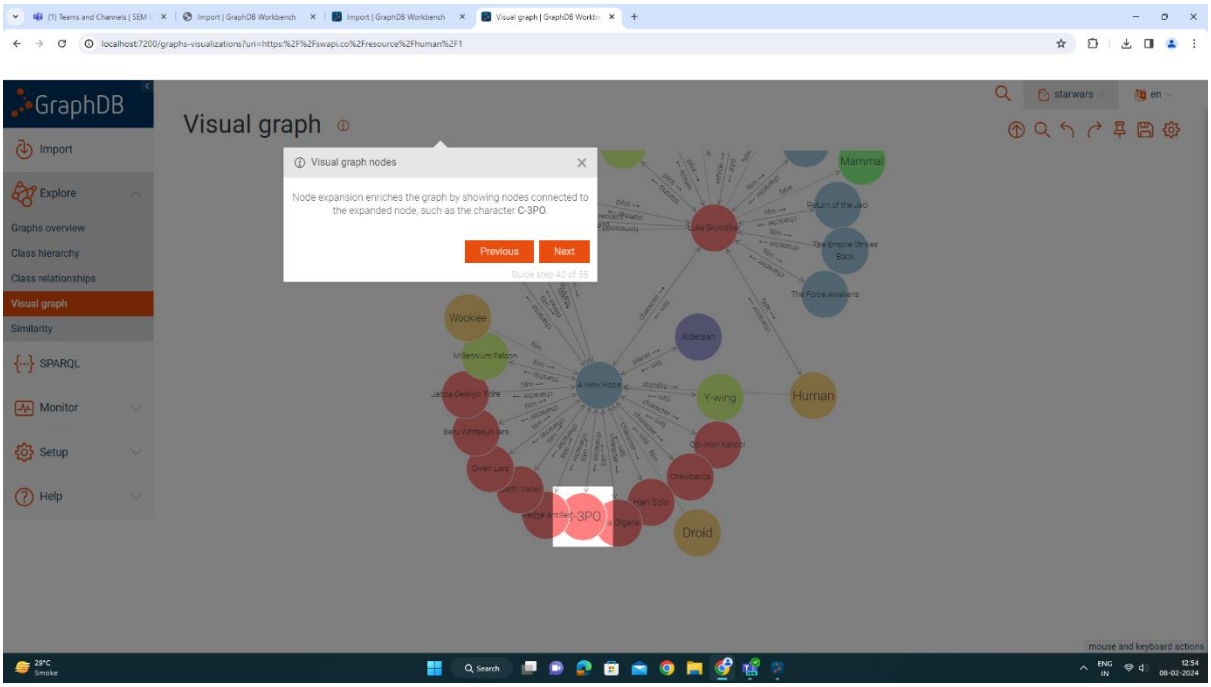

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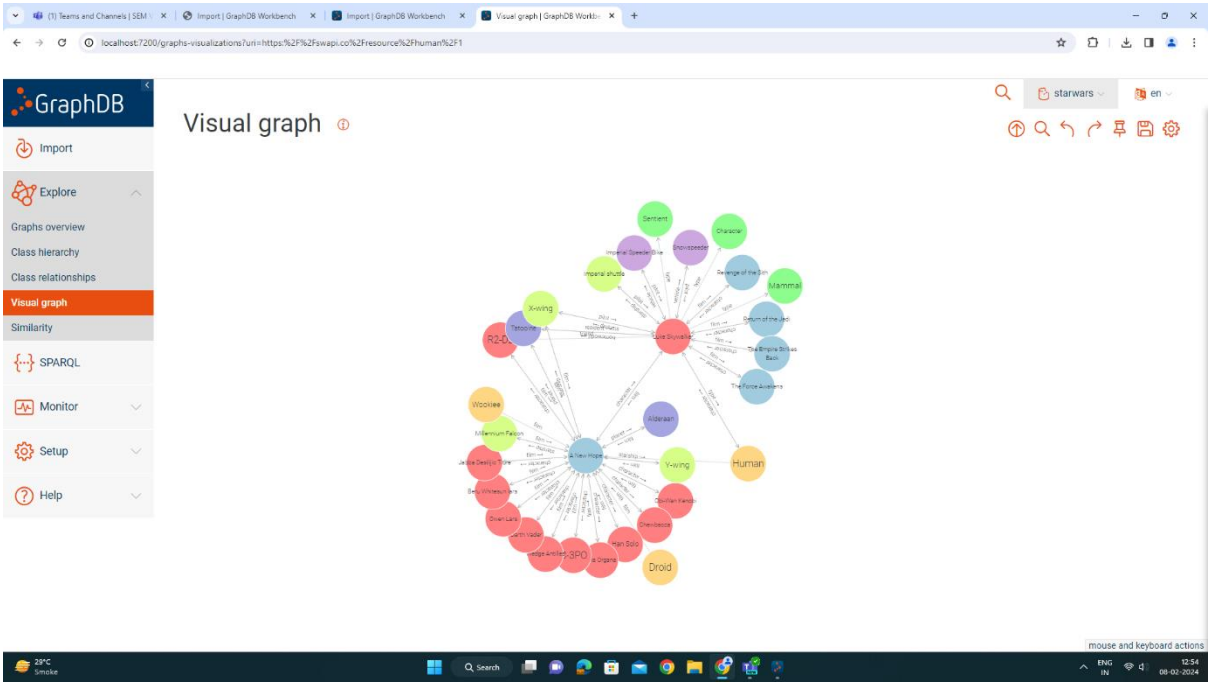

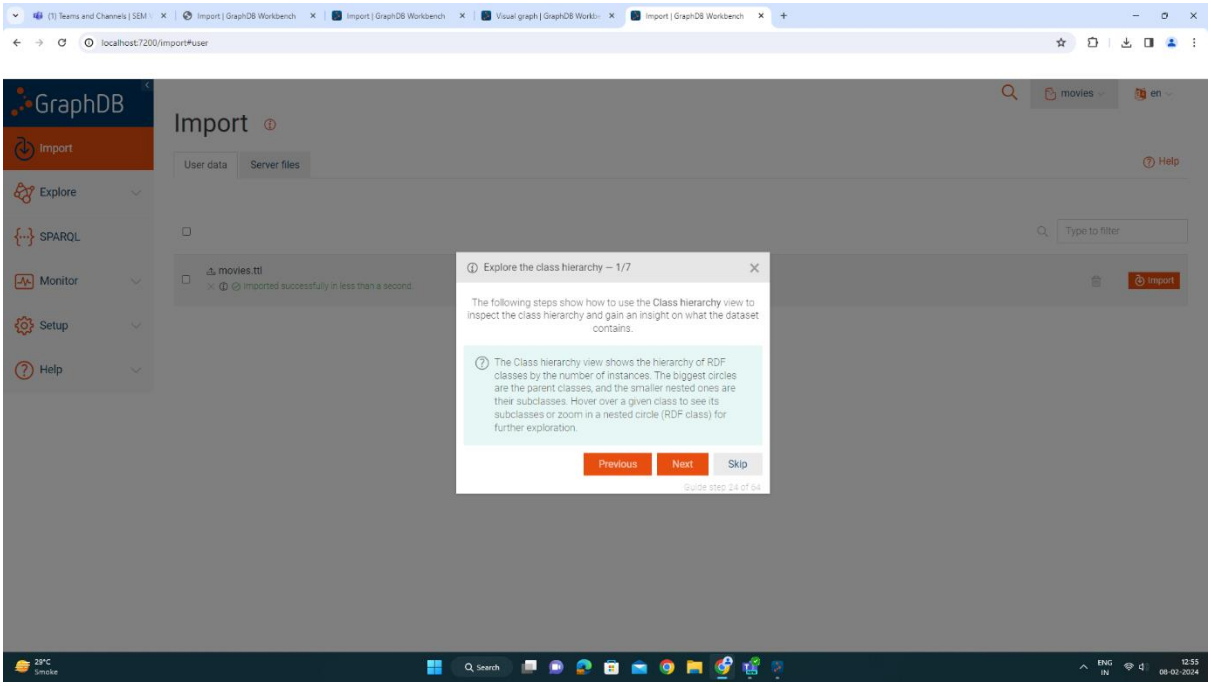

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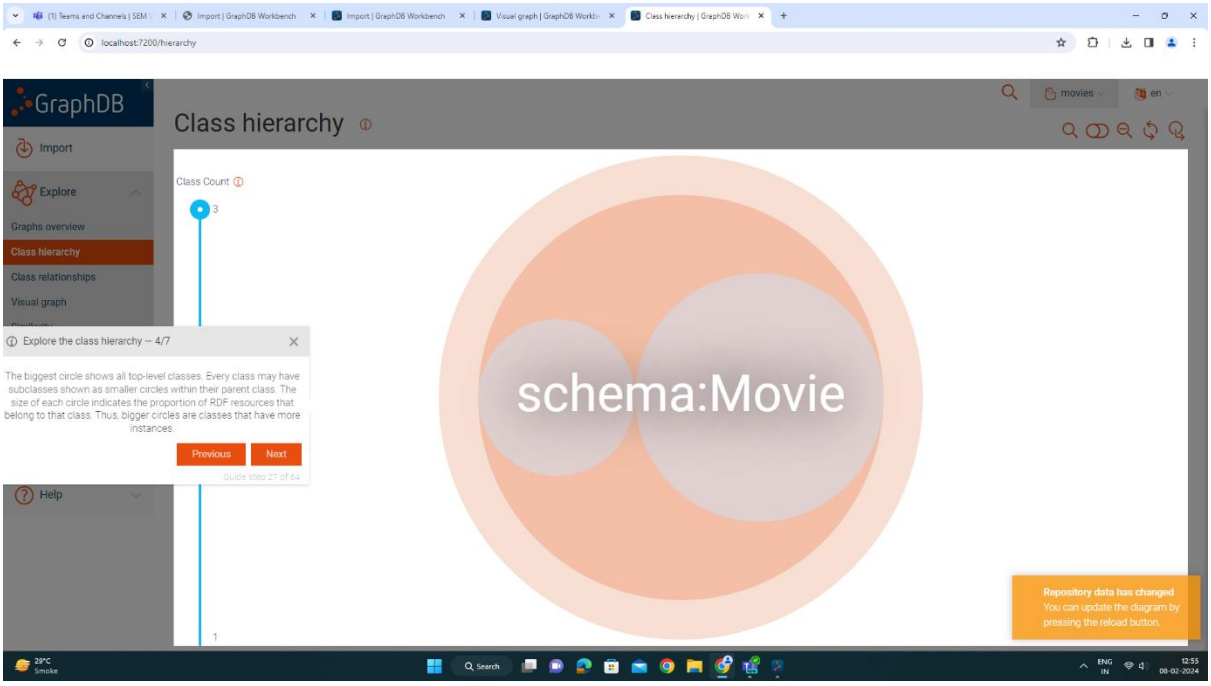

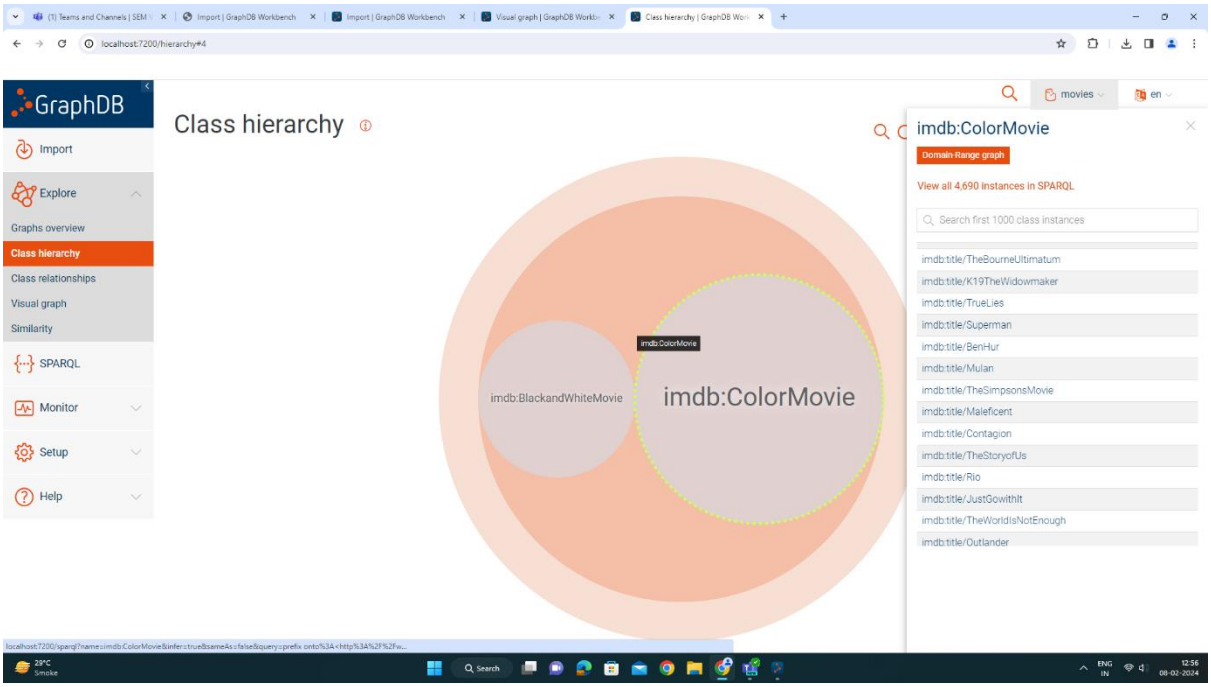

CONCLUSION:

We have thus used GraphDB's RDF Parser to import RDF datasets and explore the different connections.

REFERENCES:

[1] W3C RDF Recommendation, W3 Organization. Retrieved on 13th March 2023 from https://www.w3.org/TR/rdf-syntax-grammar/

[2] The Australian Government Linked Data Working Group: http://linked.data.gov.au, retrieved on 13th March 2023 from http://reference.data.gov.au/def/ont/dataset