TRAINING TR-102 REPORT DAY 13

27 June, 2024

Overview:

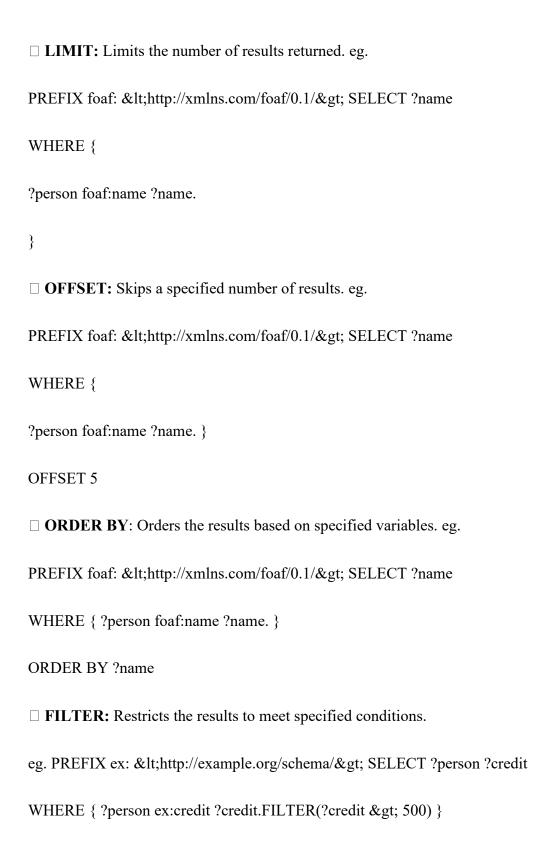
The eleventh day of the training focused on SPARQL queries and their implementation using Apache Jena Fuseki. SPARQL Queries .The training session included an in-depth exploration of various SPARQL query forms and clauses. Below is a summary of the SPARQL queries covered:

☐ SELECT: Used to retrieve specific variables from the data.
eg. PREFIX foaf: <http: 0.1="" foaf="" xmlns.com=""></http:> SELECT ?name
WHERE {
?person foaf:name ?name.
}

☐ **WHERE:** Specifies the pattern to match in the dataset. eg.

PREFIX foaf: <http://xmlns.com/foaf/0.1/>SELECT ?name

WHERE { ?person foaf:name ?name. }



```
☐ FILTER NOT EXISTS: Ensures certain patterns do not exist in the result set. eg.
PREFIX foaf: <http://xmlns.com/foaf/0.1/&gt; SELECT ?person
WHERE {
?person foaf:name ?name. FILTER NOT EXISTS { ?person foaf:age ?age.
} }
□PREFIX foaf: <http://xmlns.com/foaf/0.1/&gt; DESCRIBE ?person
WHERE {
?person foaf:name "Alice". }
□ SELECT * WHERE: A variant of SELECT to return all variables that match the pattern.
eg.
PREFIX ex: <http://example.org/schema/&gt;
PREFIX foaf: <http://xmlns.com/foaf/0.1/&gt; SELECT * WHERE {
?subject ?predicate ?object. }
DESCRIBE: Returns an RDF graph containing resources related to the query.
□ OPTIONAL: Returns results including optional patterns if they exist. eg.
PREFIX foaf: <http://xmlns.com/foaf/0.1/&gt; SELECT ?person ?name ?age
WHERE { ?person foaf:name ?name. OPTIONAL { ?person foaf:age ?age. }
}
```

☐ Participants asked to perform the tasks using the SPARQL queries learnt on the dataset

imported on the previous day.

Conclusion:

The thirteenth day of the training focused on mastering SPARQL queries using Apache Jena

Fuseki. Participants gained practical knowledge in querying RDF data with them. Hands-on

sessions enabled them to import datasets, execute queries, and troubleshoot effectively. This

session prepares participants for advanced topics in semantic web technologies.