Training Day10
Report:

26 June 2024

Keys Takeways:

1. Downloading Apache Jena Fuseki

- **Visit Official Website**: Go to the Apache Jena website at jena.apache.org.
- **Navigate to Downloads**: Find the download section for Fuseki.
- **Select Version**: Choose the desired version of Fuseki. The latest stable release is recommended.
- **Download Archive**: Download the zip or tar.gz archive suitable for your operating system.
- **Extract Files**: Extract the downloaded archive to a preferred directory on your system.

2. Java Version Requirements

- **Java Compatibility**: Ensure that you have Java installed on your system. Apache Jena Fuseki requires Java 8 or later.
- **Check Java Version**: Open a terminal or command prompt and run the command `java -version` to verify your Java version.
- **Install/Update Java**: If needed, download and install the latest Java Development Kit (JDK) from the Oracle website or use an open-source alternative like OpenJDK.

3. Uploading Data Over Apache Jena Fuseki

- **Start Fuseki Server**: Navigate to the directory where Fuseki is extracted and run the server using the command `./fuseki-server` (Linux/Mac) or `fuseki-server.bat` (Windows).
- **Access Fuseki UI**: Open a web browser and go to `http://localhost:3030` to access the Fuseki user interface.
- **Create a Dataset**:

- o Click on "Datasets".
- o Click on "Add new dataset".
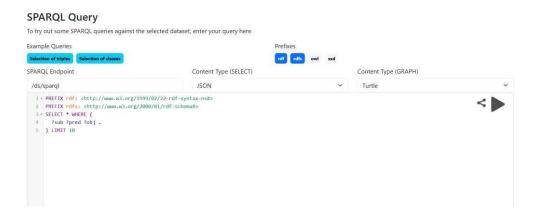- o Enter a name and select the dataset type (e.g., in-memory or TDB).

- **Upload RDF Data**:
  - o Select the newly created dataset.
  - o Go to the "Upload" tab.
  - o Choose the RDF data file (e.g., .ttl, .rdf) from your local machine.
  - o Click "Upload" to load the data into the dataset.

4. Writing and Executing a Query

- **SPARQL Query Execution**:
  - o Select the dataset you want to query from the Fuseki interface.
  - o Go to the "Query" tab.

- **Writing a Query**:
  - o Use SPARQL, a query language for RDF data. Example query:

```sparql
Copy code
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT ?name WHERE {
  ?person a foaf:Person .
  ?person foaf:name ?name .
}
```

  - o This query selects the names of all persons in the dataset.

- **Running the Query**:
  - o Enter the SPARQL query into the query text area.
  - o Click "Run Query" to execute.
  - o View results in the results pane, which displays the query output in tabular form.