

# Training Day 10 Report

26 June 2024

Keys Takeways:

## **1. Downloading Apache Jena Fuseki**

- **Visit Official Website:** Go to the Apache Jena website at [jena.apache.org](http://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](http://www.oracle.com) 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:**

- Click on "Datasets".
- Click on "Add new dataset".
- Enter a name and select the dataset type (e.g., in-memory or TDB).
- **Upload RDF Data:**
  - Select the newly created dataset.
  - Go to the "Upload" tab.
  - Choose the RDF data file (e.g., .ttl, .rdf) from your local machine.
  - Click "Upload" to load the data into the dataset.

## 4. Writing and Executing a Query

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

**SPARQL Query**

To try out some SPARQL queries against the selected dataset, enter your query here.

Example Queries: [Selection of triples](#) [Selection of classes](#)

Prefixes: [rdf](#) [rdfs](#) [owl](#) [xsd](#)

SPARQL Endpoint:

Content Type (SELECT):

Content Type (GRAPH):

```

1 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
2 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
3 SELECT * WHERE {
4   ?sub ?pred ?obj .
5 } LIMIT 10

```

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

```

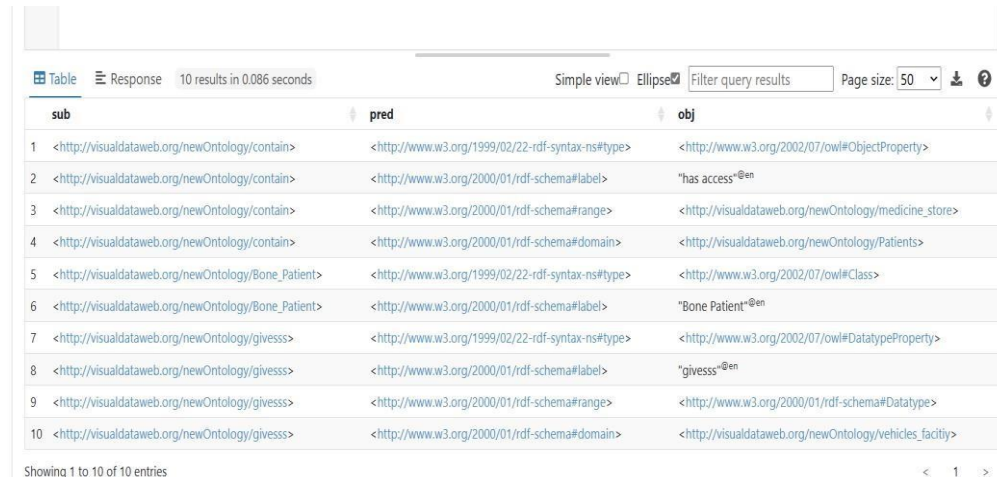
sparql
Copy code
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
SELECT ?name WHERE {
  ?person a foaf:Person .
  ?person foaf:name ?name .
}

```

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

- **Running the Query:**

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



	sub	pred	obj
1	<http://visualdataweb.org/newOntology/contain>	<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>	<http://www.w3.org/2002/07/owl#ObjectProperty>
2	<http://visualdataweb.org/newOntology/contain>	<http://www.w3.org/2000/01/rdf-schema#label>	"has access"@en
3	<http://visualdataweb.org/newOntology/contain>	<http://www.w3.org/2000/01/rdf-schema#range>	<http://visualdataweb.org/newOntology/medicine_store>
4	<http://visualdataweb.org/newOntology/contain>	<http://www.w3.org/2000/01/rdf-schema#domain>	<http://visualdataweb.org/newOntology/Patients>
5	<http://visualdataweb.org/newOntology/Bone_Patient>	<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>	<http://www.w3.org/2002/07/owl#Class>
6	<http://visualdataweb.org/newOntology/Bone_Patient>	<http://www.w3.org/2000/01/rdf-schema#label>	"Bone Patient"@en
7	<http://visualdataweb.org/newOntology/giveness>	<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>	<http://www.w3.org/2002/07/owl#DatatypeProperty>
8	<http://visualdataweb.org/newOntology/giveness>	<http://www.w3.org/2000/01/rdf-schema#label>	"giveness"@en
9	<http://visualdataweb.org/newOntology/giveness>	<http://www.w3.org/2000/01/rdf-schema#range>	<http://www.w3.org/2000/01/rdf-schema#Datatype>
10	<http://visualdataweb.org/newOntology/giveness>	<http://www.w3.org/2000/01/rdf-schema#domain>	<http://visualdataweb.org/newOntology/vehicles_facility>

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