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DAY 5

TRAINING REPORT

1.JSON:

JSON (JavaScript Object Notation) is a lightweight data interchange format that is easy for humans to read and write, and easy for machines to parse and generate. It is a text format that is completely language-independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language.

Structure of JSON

JSON is built on two structures:

1. **A collection of name/value pairs**: In various languages, this is realized as an object, record, struct, dictionary, hash table, keyed list, or associative array.
2. **An ordered list of values**: In most languages, this is realized as an array, vector, list, or sequence.

2.XML:

XML (eXtensible Markup Language) is a markup language designed to store and transport data. It is both human-readable and machine-readable, making it a versatile tool for a wide range of applications, including data exchange between systems, configuration files, and documentation.

Key Features of XML

- **Self-Descriptive**: XML uses tags to define the structure and content of the data, making it easy to understand.
- **Flexible**: XML is not limited to a predefined set of tags; you can create your own custom tags to suit your needs.
- **Hierarchical**: XML data is structured in a tree-like hierarchy, which makes it easy to represent complex data structures.
- **Platform Independent**: XML is text-based and can be used across different platforms and programming languages.

3. TURTLE:

Turtle (Terse RDF Triple Language) is a syntax for expressing RDF (Resource Description Framework) data in a compact and readable way. It is designed to be human-friendly, making it easier to write and understand RDF data compared to other serialization formats like RDF/XML.

Key Features of Turtle

- **Human-Readable**: Turtle syntax is designed to be easy for humans to read and write.
- **Compact**: It allows for concise representation of RDF triples.
- **Prefixes**: Turtle supports the use of prefixes to simplify the URIs.
- **Collections and Lists**: It supports syntax for RDF collections and lists.

4. URI,URL,URN:

• **URI(Uniform Resource Identifier)**: A generic term for all types of names and addresses that refer to objects on the web. It can be a URL or a URN.

- Example: `http://example.org/resource`

• **URL(Uniform Resource Locator)**: A specific type of URI that provides the means to locate a resource by describing its primary access mechanism (e.g., its network location).

- Example: `http://www.example.com/index.html`

• **URN(Uniform Resource Name)**: A specific type of URI that names a resource without indicating how to locate it. It is intended to serve as a persistent, location-independent resource identifier.

- Example: `urn:isbn:978-3-16-148410-0`

5. Rewrite Engine:

A rewrite engine is a component of a web server that allows for the manipulation and transformation of URLs before they reach the web application's backend. It is commonly used to create user-friendly and search engine-friendly URLs, enforce canonical URLs, and perform redirects.