**1)Difference between JSON and XML**

**JSON** (JavaScript Object Notation) and **XML** (eXtensible Markup Language) are both popular data interchange formats, but they have some key differences:

**Syntax:** JSON is simpler and more lightweight than XML. JSON uses key-value pairs and arrays to represent data, while XML uses tags and attributes within a hierarchical structure.

**Readability:** JSON is generally easier for humans to read and write due to its concise syntax, while XML can be more verbose and complex, especially for large datasets.

**Data Types**: JSON supports a limited set of data types, including strings, numbers, booleans, arrays, and objects. XML is more flexible in this regard and can represent a wider range of data types and structures.

**Parsing**: JSON can be parsed more quickly and efficiently by JavaScript engines, making it a preferred format for data exchange in web applications. XML parsing requires more resources and can be slower.

**Usage**: JSON is commonly used for web APIs, configuration files, and data exchange between web servers and clients. XML is often used in legacy systems, document storage, and data interchange between different platforms and technologies.

**4)Difference between Authorization and Authentication**

Authentication verifies a user's identity through credentials like passwords or biometrics. Authorization determines what actions an authenticated user is allowed to perform based on their roles or permissions. Authentication confirms who you are, while authorization controls what you can access or do. They work together to ensure secure access to resources. Authentication precedes authorization in the access control process.