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Discussion 4.1

Web 420

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Collection Patterns

In the text we first learn that collections can hold resources which are important enough to keep in a collection. Similarly a list of houses will have addresses, prices and other information but doesn’t hold the physical house itself. Thus the collection holds a representation of each house. The way that data is manifest to a developer is in a format called Collection + JSON. As stated in the text, Collection + JSON is a standard for publishing a searchable list of resources over the web (Richardson & Amundsen, 2013). The collection pattern s how the data gets into the collection in the first place. Much like a box can contain many items, the process of putting those items into the box is like a pattern of picking something up and dropping it in. In APIs, collection patterns use POST requests to enter data into a collection. Other collection patterns are GET, PUT, DELETE as well as a searchable pattern among some.

Differences between JSON and XML

There are many differences between JSON and XML. In JSON, objects have types such as string or number whereas in XML, the data is typeless. According to Guru99, all XML data should be a string. Other differences noted in the article from Guru99 are that JSON data is accessible as objects whereas XML data needs to be parsed. JSON is supported by most browsers whereas cross-browser XML can be harder. Among other differences, JSON is less secure than XML but XML is harder to read.

Generic Collections

Generic collections use the general standards of GET, POST-to-Append, PUT and PATCH, DELETE, Pagination and Search. This collection pattern is very self explanatory and it is used in databases as well to go through data. In an API using Collection + JSON format, GET serves the representation of the JSON data. With POST-to-Append, similar to a POST request to a form, data can be added to the object. PUT and PATCH will modify data delete or updating it. Pagination is necessary when creating a large list of items and breaks them down into a defined number of results per page. Search Forms “lets a client find the interesting parts of a collection without downloading the whole thing (Richardson & Amundsen, 2013).

Reference List

Guru99. *“JSON vs XML: What’s the Difference?”* guru99.com, Accessed 7 April 2021.

https://bit.ly/31SkgKt

Richardson G Leonard, Amundsen Mike. *“RESTful Web APIs.”* O’Riley Media Inc. 22 May 2015.