

Module #6

Objective: Students should have an understanding of what JSON is and what it can be used for.

[FSFO-850](#)

| VO Script | Visuals |
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| In this video, we'll describe JSON and why it's such a popular format in modern web application development. | Talking head |
| JSON is a lightweight data interchange format. What does that mean? Essentially, JSON is a way to format data that allows us to transfer it from a server to a client. | T — JSON JavaScript Object Notation |
| JSON is easy for humans to read and write, and more importantly it is easy for computers to parse and generate. | |
| JSON format was first introduced in the early 2000s, with its official website being launched in 2002. | T — History of JSON |
| By 2005, Yahoo! Started to offer some of its web services in JSON. And then in 2013, JSON became an ECMA international standard. Since then, JSON has become a much more popular format than XML in server-client interactions. | JSON ```\n{\n "students": [\n {\n "firstName": "Charlie",\n "lastName": "Down" \n },\n {\n "firstName": "Olive",\n "lastName": "Smith" \n },\n {\n "firstName": "Rodrigo",\n "lastName": "Gonzalez" \n }\n]\n}\n```\n Vs. |

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| | XML <pre> ''' <students> <student> <firstName>Charlie</firstName> <lastName>Down</lastName> </student> <student> <firstName>Olive</firstName> <lastName>Smith</lastName> </student> <student> <firstName>Rodrigo</firstName> <lastName>Gonzalez</lastName> </student> </students> ''' </pre> |
| While JSON may have JavaScript in the name, it's actually completely language-agnostic. That means it can be used by many other languages, including C++, Java, Python, and PHP. | JavaScript Object Notation |
| Even though JSON is language-agnostic, it standardizes the language of data as it travels. For example, if your server is written in Java and your client is a single-page application using JavaScript, JSON is the intermediary. | Java → JSON → React page C# → JSON → JavaScript |
| JSON uses a very standard format. It opens with curly braces, and then contains a number of key-value pairs, using JavaScript's object rules, but always using quotations on the key. | For example: <pre> ''' { "name": "Gillian", "age": 35, "hobbies": ["wrestling", "dog grooming"], "city": "Queens" } ''' </pre> |
| JSON is most commonly used for server-client interactions. This means that a client might request data via HTTP and | |

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| the server responds, providing that data or an error message in JSON format. | |
| As you progress through the lessons, you'll see how data is returned in JSON format from third-party APIs as well as your own web servers when you set these up. | |
| Now it's time for you to get back to writing some code! Thanks for watching. | |