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Written Exercise – Chapter 9

In about 200 words, outline the difference between the Simple Object Access Protocol (SOAP) and the Representational State Transfer (REST) principle as they are used in the creation of Web services. In your answer, discuss the advantages and disadvantages of each.

      Simple Object Access Protocol uses a stricter and more complex dictionary of methods that retain to using XML to transport data from one application to another. This protocol is highly used based on its secure methods. SOAP is widely used amongst applications because they are viable amongst more languages than REST. REST is maintained mostly on HTTP and HTTPS, whereas SOAP also can be used for SMTP and even XMPP! According to media.com "SOAP focuses more on the **messages** whereas REST focuses more on defining APIs as resources to be utilized in multiple locations" (media.com). Representational State Transfer is becoming more common due to its simple structure, amongst its model of use. REST discloses data in a format that uses JSON and URI, unlike SOAP that uses XML and WSDL. Since REST uses a URI base, this means it can relay more "objects" or data. Since REST is a simpler protocol to conduct, this would also mean that they enact faster too! REST is used more often as a building style for basic operations whereas SOAP is used for larger applications. SOAP and REST are both well known protocols, each with their perks and downsides, learning about the two widens the possibilities based on your API goals.

https://www.geeksforgeeks.org/difference-between-rest-api-and-soap-api/

https://medium.com/@vinayak-singh/rest-vs-soap-8ce0f50e916c