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WEB 420 RESTful APIs

Discussion 2.1 REST

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REST stands for representational state transfer and is an architectural style for distributed hypermedia systems. If a service interface should be referred to as RESTful it must satisfy certain guiding principles and constraints. There are six guiding principles that should be followed in order for this to be true. The first guiding principle is it has to have a uniform interface. For an interface to be uniform it must uniquely identify each resource involved in an interaction between the client and the server and it should have self-descriptive messages (Ravan et al., 2022). The second guiding principle is that the client-server design “enforces the separation of concerns, which should help the client and the server components evolve independently” (Ravan et al., 2022). The third guiding principle is that it should be stateless. This means that the server should not use any previously stored information. Another guiding principle is that it should be cacheable meaning that it requires a response to implicitly or explicitly label itself cacheable or non-cacheable (Ravan et al., 2022). The fifth guiding principle is that it should have a layered system. The last guiding principle is Code on Demand. All of these principles help RESTful application be simple and fast.

RESTful Web Services are lightweight, maintainable, and scalable services that use the REST architecture (Walker, 2023). The key elements of RESTful implementations are: resources, request verbs, request headers, request body, response body, and response status codes (Walker, 2023). The verbs in a REST API are POST, GET, PUT, and DELETE. POST is used to create a resource on the server. GET is used to retrieve a resource from the server. PUT is used to change the state of a resource or to update it. DELETE is used to remove or delete a resource from the server.

References

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Walker, A. (2023, February 25). *RESTful web services tutorial: What is REST API with example*. Guru99. Retrieved from <https://www.guru99.com/restful-web-services.html>