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Internet and Web Programming (CISC-3300-R01)

Fordham University

**Homework 8**

1. Escaping data means taking the data that might be interpreted as executable code and ensuring it is treated as data only. This often involves adding a backslash (**\**) before characters that have a special meaning in the code, like quotes in a string. Escaping helps prevent malicious code execution, such as JavaScript in a web application, which could lead to Cross-Site Scripting (XSS) attacks.
2. Answer
   1. REST, or Representational State Transfer, is an architectural style for designing networked applications. It uses a stateless, client-server, cacheable communications protocol -- the HTTP protocol. Statelessness means that the server does not keep any client state. Each request from a client contains all the information necessary for the server to understand and process it.
   2. A resource in REST is anything that’s important enough to be referenced as a thing in itself. For example, a user, a document, or an image. In the context of an HTTP-based application, resources are represented by URIs.
   3. **Proper path design in RESTful architecture:**
      1. GET https://store.com/users
      2. GET https://store.com/users/123
      3. POST https://store.com/users
3. A cookie is a small piece of data that a server sends to the user's web browser. The browser may store it and send it back with the next request to the same server. Typically, it's used to tell if two requests come from the same browser — keeping a user logged-in, for example.
4. A session is a server-side storage of information that is desired to persist throughout the user's interaction with the web site or web application. Instead of storing large and potentially vulnerable data on the client-side, session IDs are stored on the client side and map to the actual session data stored on the server.
5. See repository