

## CS 240: HTTP Methods Transcript

[00:00:01] **INSTRUCTOR:** So we've learned about HTTP GET requests and HTTP POST requests. Now I just want to say a little bit about the other kinds of HTTP request types, or HTTP methods, as they call it, that you can use. So this slide shows the four most commonly used HTTP request types.

[00:00:22] We've talked about GET and POST. POST gets for retrieving data, POST is for submitting data or sending data to the server. Oftentimes, a web API will have functions for creating different kinds of objects in the system.

*Start visual description. Slide titled. Text reads:*

- *GET: Retrieve data*
  - *A read operation in a REST API*
  - *Body should normally not be included in request*
- *POST: Submit something to the specified resource, often causing a change or side effect*
  - *A create operation in a REST API*
  - *Body included in request*
- *PUT: Replace the specified resource*
  - *An update operation in a REST API*
  - *Body included in request*
- *DELETE: Delete the specified resource*
  - *A delete operation in a REST API*
  - *Body should normally not be included in request*
- *Other methods that are rarely used*
  - *HEAD, OPTIONS, TRACE, PATCH*

*End visual description.*

- [00:00:39] For example, if you want to register with the system and create a new user account, that would be an example of creating an object in the server. So oftentimes, POST requests are used for functions that are creating something.
- [00:00:56] There's a similar HTTP method called PUT, which is very similar to POST except it's often used for updating an existing object rather than creating a new one. So if you have a function that doesn't create a new user but it just updates the details of the user, that update function might use a PUT request.
- [00:01:17] So the distinction between PUT and POST is not really obvious all the time which one you want to use for that. But that's how people use PUT is to update objects. Then we have the HTTP delete method.
- [00:01:33] So if you have a web API function that deletes something in the server, you would probably use a delete request for that. And then the URL path would just specify the object that you want to delete. So HTTP is oftentimes used to implement what's called REST APIs.
- [00:01:52] And these are just web APIs that provide CRUD operations. So CRUD stands for create, read, update, delete. It's what we talked about before. Those are basically the four things you can do to data. And these these four HTTP methods roughly correspond to the different CRUD operations.
- [00:02:14] Create would be POST, read would be GET, update would be PUT, and delete would be would be DELETE. Now if you read the HTTP specification, there's a whole bunch of other methods that you can use in the HTTP protocol, but most of the other ones are not used very often.
- [00:02:32] And so most software developers focus on these other four primarily, but occasionally you may run into these other HTTP methods when you're debugging things and so forth.