

HTTP METHODS

EVERY WEB DEVELOPER SHOULD KNOW .

HTTP (HYPERTEXT TRANSFER PROTOCOL) IS A PROTOCOL USED FOR TRANSMITTING DATA OVER THE INTERNET. IT DEFINES A SET OF REQUEST METHODS THAT INDICATE THE DESIRED ACTION TO BE PERFORMED FOR A GIVEN RESOURCE.

GET	/books	Lists all the books in the database.
DELETE	/books/{bookId}	Deletes a book based on their ID.
POST	/books	Creates a new book entry.
PUT	/books/{bookId}	Method to update a book's information.
GET	/books/{bookId}	Retrieves a book based on their ID.

HERE ARE THE COMMONLY USED HTTP METHODS:

1. GET: USED TO RETRIEVE DATA FROM A SPECIFIED RESOURCE.
THE DATA IS RETURNED IN THE RESPONSE BODY.
2. POST: USED TO SUBMIT AN ENTITY TO A SPECIFIED RESOURCE,
OFTEN CAUSING A CHANGE IN STATE OR SIDE EFFECTS ON THE
SERVER.
3. PUT: USED TO REPLACE ALL CURRENT REPRESENTATIONS OF
THE TARGET RESOURCE WITH THE REQUEST PAYLOAD.
4. DELETE: USED TO DELETE A SPECIFIED RESOURCE.
5. PATCH: USED TO PARTIALLY UPDATE A SPECIFIED RESOURCE.
6. HEAD: SIMILAR TO GET, BUT ONLY RETURNS THE HEADERS OF
THE RESPONSE.
7. OPTIONS: RETURNS THE SUPPORTED HTTP METHODS, HEADERS,
AND CONTENT TYPES FOR A RESOURCE.

THESE HTTP METHODS ARE USED IN COMBINATION WITH A URL TO
SPECIFY THE TARGET RESOURCE, AND HEADERS TO PROVIDE
ADDITIONAL INFORMATION ABOUT THE REQUEST OR RESPONSE.

PUT AND PATCH ARE BOTH HTTP METHODS USED FOR UPDATING RESOURCES ON A SERVER, BUT THEY DIFFER IN HOW THEY PERFORM THE UPDATE.

PUT IS USED TO COMPLETELY REPLACE AN EXISTING RESOURCE WITH A NEW ONE. IN OTHER WORDS, WHEN YOU USE PUT TO UPDATE A RESOURCE, YOU NEED TO SEND THE ENTIRE RESOURCE REPRESENTATION, INCLUDING ANY FIELDS THAT YOU ARE NOT CHANGING. PUT REQUESTS ARE IDEMPOTENT, WHICH MEANS THAT SENDING THE SAME REQUEST MULTIPLE TIMES WILL HAVE THE SAME EFFECT AS SENDING IT ONCE.

FOR EXAMPLE, SUPPOSE YOU HAVE A RESOURCE THAT REPRESENTS A USER WITH VARIOUS FIELDS LIKE NAME, EMAIL, AND PHONE NUMBER. IF YOU USE PUT TO UPDATE THE EMAIL ADDRESS OF THE USER, YOU MUST SEND THE ENTIRE RESOURCE REPRESENTATION, INCLUDING THE NAME AND PHONE NUMBER FIELDS.

ON THE OTHER HAND, PATCH IS USED TO PARTIALLY UPDATE AN EXISTING RESOURCE. IN OTHER WORDS, WHEN YOU USE PATCH TO UPDATE A RESOURCE, YOU ONLY NEED TO SEND THE FIELDS THAT ARE CHANGING. PATCH REQUESTS ARE NOT NECESSARILY IDEMPOTENT, WHICH MEANS THAT SENDING THE SAME REQUEST MULTIPLE TIMES MIGHT HAVE DIFFERENT EFFECTS DEPENDING ON THE SERVER IMPLEMENTATION.

USING THE SAME EXAMPLE AS BEFORE, IF YOU USE PATCH TO UPDATE THE EMAIL ADDRESS OF THE USER, YOU ONLY NEED TO SEND THE NEW EMAIL ADDRESS, NOT THE ENTIRE RESOURCE REPRESENTATION.

IN SUMMARY, PUT IS USED TO COMPLETELY REPLACE A RESOURCE, WHILE PATCH IS USED TO PARTIALLY UPDATE A RESOURCE. THE CHOICE BETWEEN THESE TWO METHODS DEPENDS ON THE SPECIFIC REQUIREMENTS OF THE APPLICATION OR API BEING DEVELOPED.