



مهم جدأ

هذا الملف للمراجعة السريعة واخذ الملاحظات عليه فقط ،لانه يحتوي على اقل من 20٪ مما يتم شرحه في الفيديوهات الاستعجال والاعتماد عليه فقط سوف يجعلك تخسر كميه معلومات وخبرات كثيره

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لاتنسى عمل لايك ومشاركة القناة لتعم الفائدة للجميع لا تنسونا من دعائكم

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Introduction to Restful-APIs

Accessing
Resources Using
HTTP Request

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Endpoint: URL for the function

Stateless



Application Running
On the Server 24 x 7

Request Control Reputation Reputatio

All Students Provided

Response

Text → JSON or XML

Request

StudentInfoByID(10)
Response

Info about student 10 provided



http://

Client

Application
Running
On Client Machine



- Mobile
- Desktop
- Web
- TV
- Car
- Windows Service
- Any App

OS:

- Windows
- Android
- Linux
- IOS
- Any OS

Languages:

C#, Python, Java, C++..etc



Accessing Resources

To access a resource, the client sends an HTTP request to the server. Client requests include four principal parts:

- 1. Http Method
- 2. Endpoint
- 3. Header
- 4. Body



1: Http Method

HTTP method: This details what should happen to the specified resource.

The four fundamental HTTP methods are known as verbs.

They are:

- POST to create a new resource. (Add New)
- GET to retrieve an existing resource. (Read)
- PUT to update or change an existing resource. (Update)
- DELETE to delete a resource. (Delete)



As the table below shows, these HTTP verbs correspond to the Create, Retrieve, Update, and Delete methods or actions, which are referred to as CRUD:

HTTP Verb	CRUD Action	In General
POST	Create	Add New
GET	Read	Read Only
PUT	Update	Update
Batch	Update	Partial Update
Delete	Delete	Delete



2: Endpoint

- The endpoint shows where the resource is located. It typically includes a Uniform Resource Identifier (URI).
- If the resource is accessed through the internet, the URI can be a URL that provides a web address for the resource.



3: Header

- Header: A header has the details needed to execute the call and handle the response.
- A request header might include authentication data, an encryption key, more details about the server location or access information and details about the desired data format needed for the response.



4: Body

- Body: The body of a request or response in a RESTful API serves the purpose of <u>carrying</u> the data between the client and the <u>server</u>. Here's a detailed look at its functions:
- Sending Data to the Server:
 - POST Method: When creating a new resource, the client includes the necessary data in the body of the request. For example, when adding a new user to a database, the user details (like name, email, and password) are sent in the request body.
 - PUT Method: When updating an existing resource, the client includes the updated data in the body of the request. For instance, when changing a user's email address, the new email address is sent in the request body.
- Receiving Data from the Server:
 - Response Body: When the server responds to a client request, it often includes the requested data in the body of the response. For example, after a successful GET request to retrieve user details, the server sends the user's information in the response body.



