

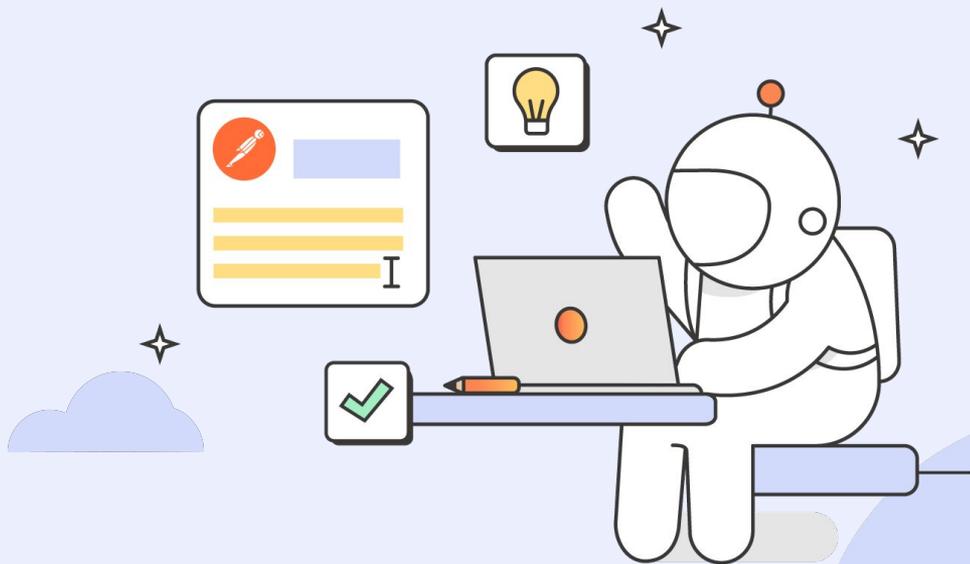


POSTMAN

Student Program

APIs 101 using Postman

Learn API essentials



Who I am

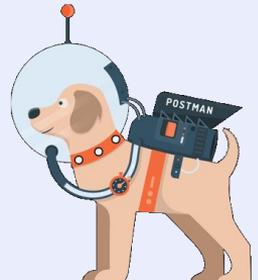


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Postman Student Expert,
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 @blackie_360

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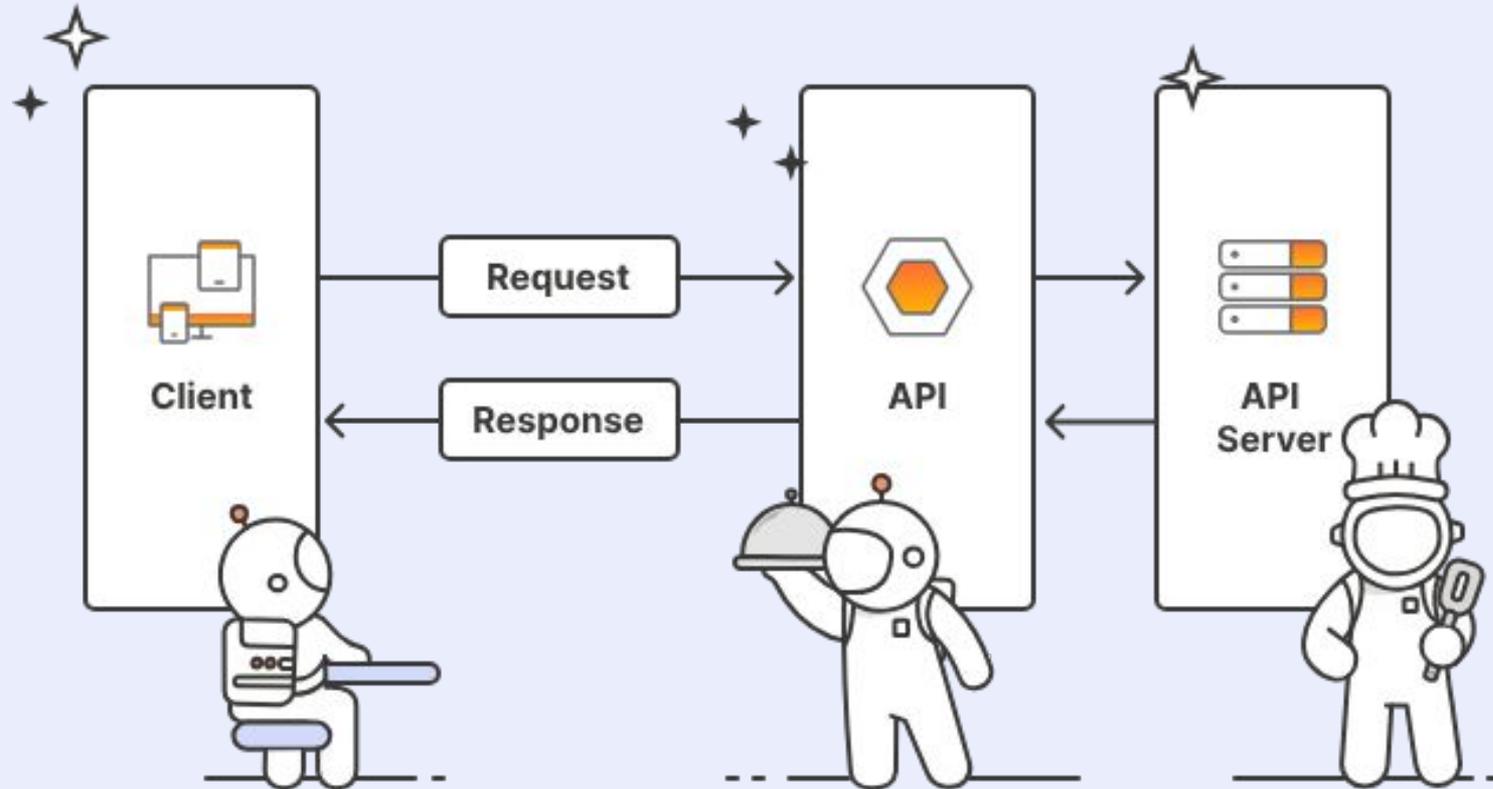


Agenda

- 1 | Intro to APIs and Postman
- 2 | Requests and responses
- 3 | Let's do API Hands-on
- 4 | Follow-up resources
- 5 | Q&A



APIs: A Digital Restaurant



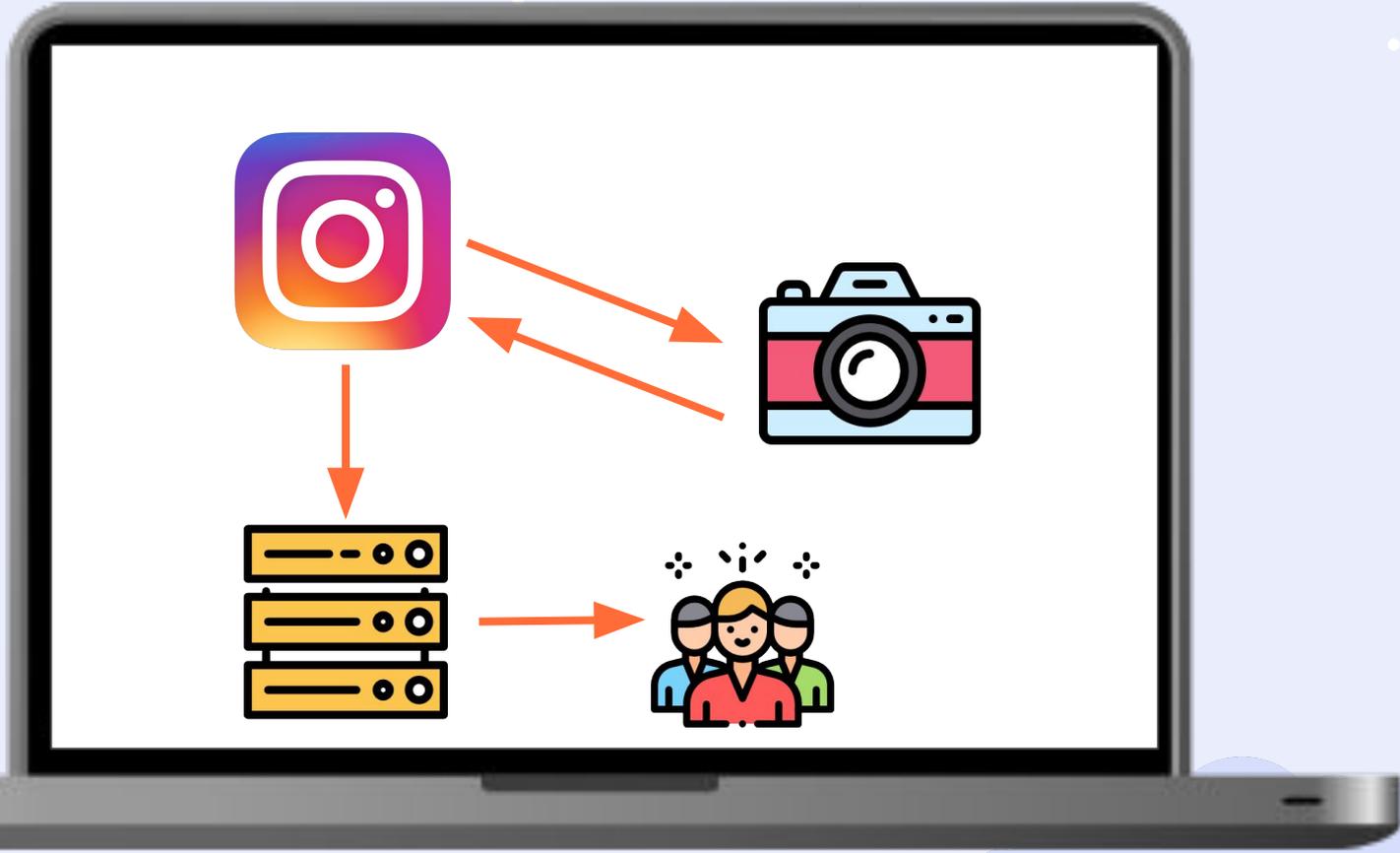
What's an API?

And why should I use one?

- Application Programming Interfaces (APIs) allow services to communicate with each other
- Software has become more complex and collaborative over the years. Developers no longer need to create every service from scratch.
- APIs allow developers to access data from a service (like Google or Twitter) without any knowledge of how the codebase has been implemented.



APIs: A bit Technical

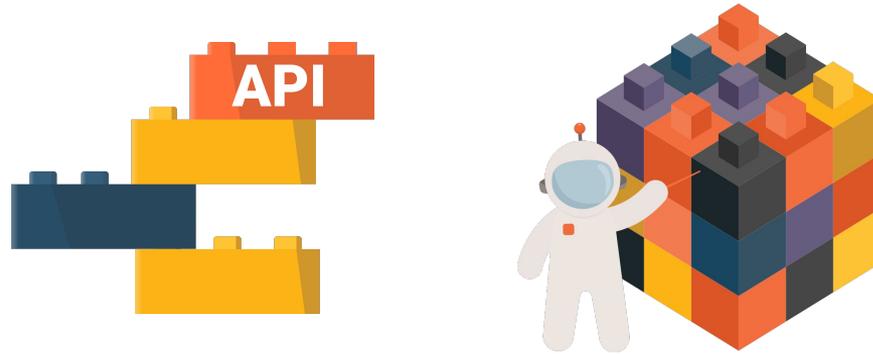


There's an API for everything

-
- The Cat API
 - OpenWeatherMap
 - Genius
 - Discord
 - Youtube-to-MP3
 - Spotify
 - Twitter
 - Facebook
 - Google
 - And so many more!
-



APIs TURN SOFTWARE INTO LEGO® BRICKS

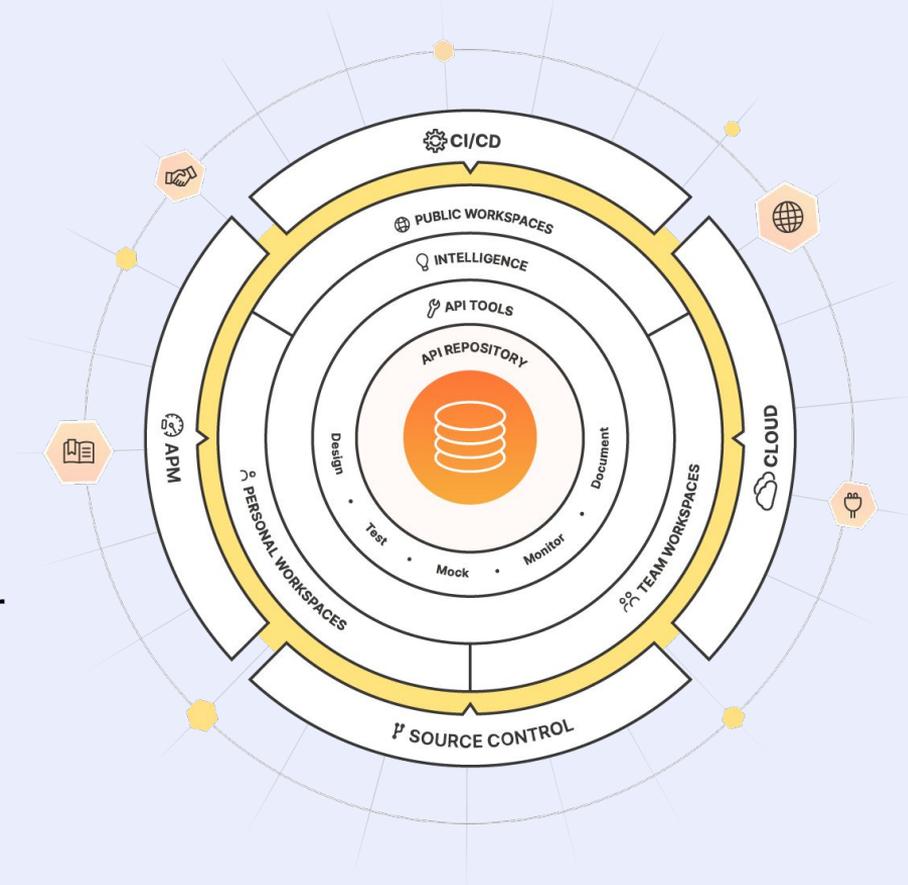


Postman

An **API platform** for building and using APIs.

Postman simplifies each step of the API lifecycle and streamlines collaboration so you can create better APIs—faster.

**DESIGN, TEST, MOCK, MONITOR,
DOCUMENT, DISCOVER APIs**



Postman is an Industry Standard Tool

Postman is a collaborative API development platform that simplifies creating, using, and testing APIs with a UI

98%

of Fortune 500
Organizations use Postman

65%

of Global 2000
Organizations use Postman



PHILIPS



Uber



GRUBHUB™



ATLASSIAN

Frontier

More than 500,000 organizations & 23 Million developers use Postman

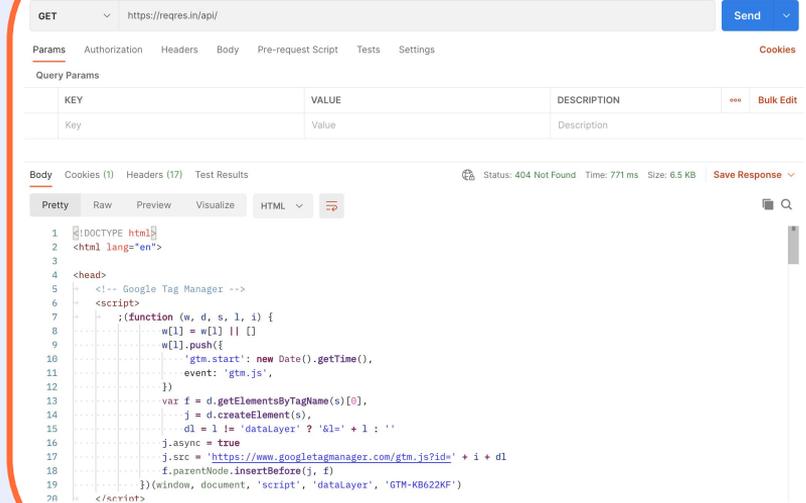
Working APIs: Then and Now

cURL Command Line

```

LTI@linuxtech1:~$ curl -v https://curl.haxx.se/docs/manpage.html
* Trying 80.67.6.50...
*   Trying 2a00:1a28:1200:9::2...
* Immediate connect fail for 2a00:1a28:1200:9::2: Network is unreachable
* Connected to curl.haxx.se (80.67.6.50) port 443 (#0)
* ALPN, offering http/1.1
* Cipher selection: ALL:!EXPORT:!EXPORT40:!EXPORT56:1aNULL:!LOW:!RC4:@STRENGTH
* successfully set certificate verify locations:
*   CAfile: /etc/ssl/certs/ca-certificates.crt
*   CAPath: /etc/ssl/certs
* TLSv1.2 (OUT), TLS header, Certificate Status (22):
* TLSv1.2 (OUT), TLS handshake, Client hello (1):
* TLSv1.2 (IN), TLS handshake, Server hello (2):
* TLSv1.2 (IN), TLS handshake, Certificate (11):
* TLSv1.2 (IN), TLS handshake, Server key exchange (12):
* TLSv1.2 (IN), TLS handshake, Server finished (14):
* TLSv1.2 (OUT), TLS handshake, Client key exchange (16):
* TLSv1.2 (OUT), TLS change cipher, Client hello (1):
* TLSv1.2 (OUT), TLS handshake, Finished (20):
* TLSv1.2 (IN), TLS change cipher, Client hello (1):
* TLSv1.2 (IN), TLS handshake, Finished (20):
* SSL connection using TLSv1.2 / ECDHE-RSA-AES128-GCM-SHA256
* ALPN, server accepted to use http/1.1
* Server certificate:
*   subject: CN=curl.haxx.se
*   start date: Feb  8 22:07:00 2017 GMT
*   expire date: May  9 22:07:00 2017 GMT
*   subjectAltName: curl.haxx.se matched
*   issuer: C=US; O=Let's Encrypt; CN=Let's Encrypt Authority X3
*   SSL certificate verify ok.
    
```

Postman

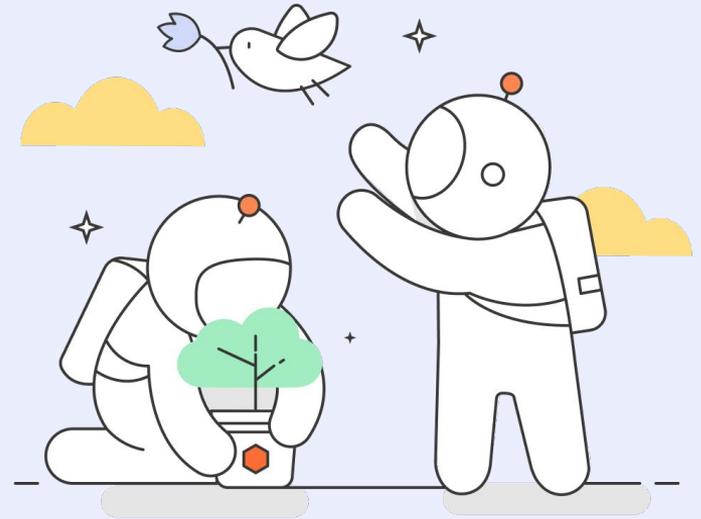


The screenshot shows the Postman interface for a GET request to `https://reqres.in/api/`. The response is displayed in the "Body" tab, showing the following HTML and JavaScript code:

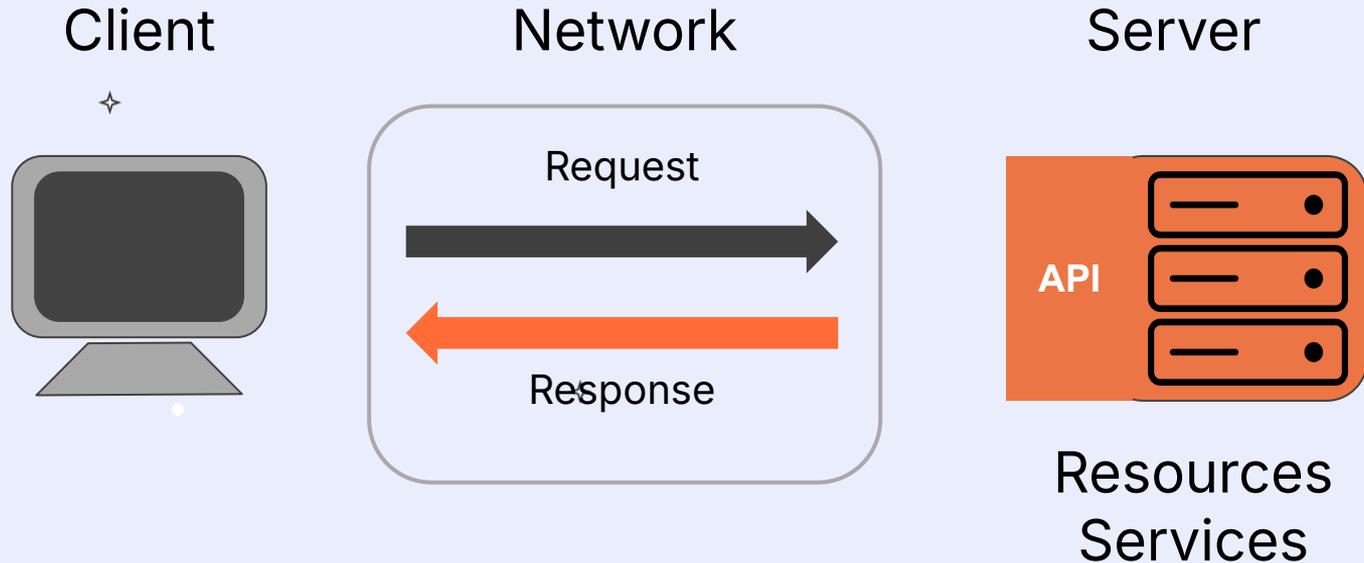
```

1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <!-- Google Tag Manager -->
6   <script>
7     (function(w,d,s,l,i){
8       w[l]=w[l]||[];
9       w[l].push({
10        'gtm.start': new Date().getTime(),
11        event:'gtm.js',
12      });
13       var f=d.getElementsByTagName(s)[0],
14           j=d.createElement(s),
15           dl=l!='dataLayer'?'&l'+1:'';
16       j.async=true;
17       j.src='https://www.googletagmanager.com/gtm.js?id='+i+dl;
18       f.parentNode.insertBefore(j,f);
19     })(window,document,'script','dataLayer','GTM-KB622KF');
20 </script>
    
```

Requests and Responses



Request-Response Pattern



Making Requests

How we interact with the API

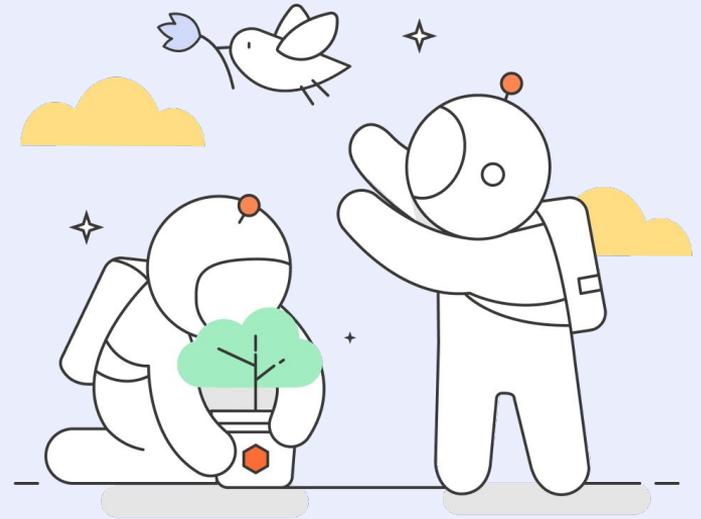
The three ingredients to make a simple request:

- Method (GET, POST, etc)
- Address/Endpoint (URL)
- Path



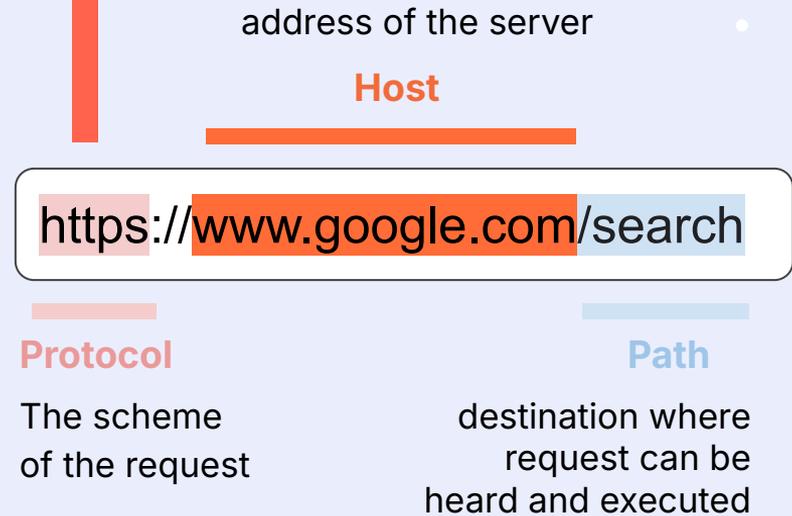
Requests - Methods and Endpoints

Bare minimum for a request



GET Send

Method	
GET	Retrieve information
POST	Send information
PUT/PATCH	Update information
DELETE	Delete information



Specifying Details

Building your requests

- Parameters
 - *In the query*
- Authorization
- Headers and body
 - *Data types*



Requests - Body

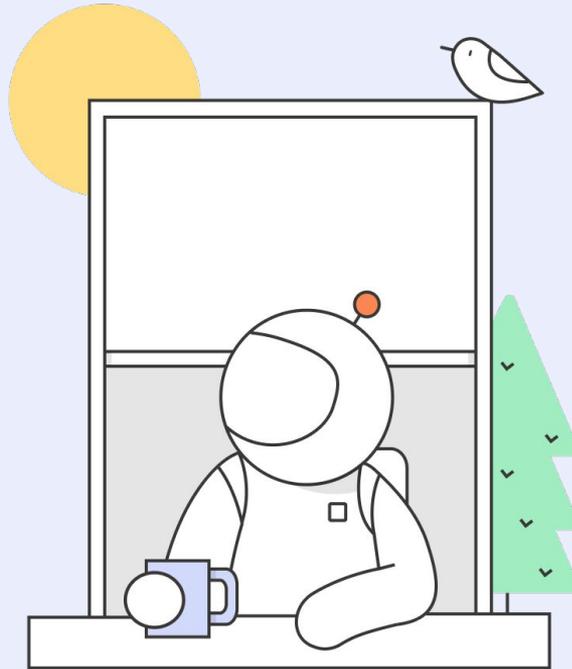
The data payload

- Optional, but often supplied with POST and PUT requests
- Data types
 - form data
 - JSON
 - text
 - HTML
 - XML
 - files
 - GraphQL
 - ... and more!

JSON

```
{  
  "name": "Jane Doe",  
  "email": "janedoe@email.com",  
  "birthYear": 1970  
}
```

Receiving Responses



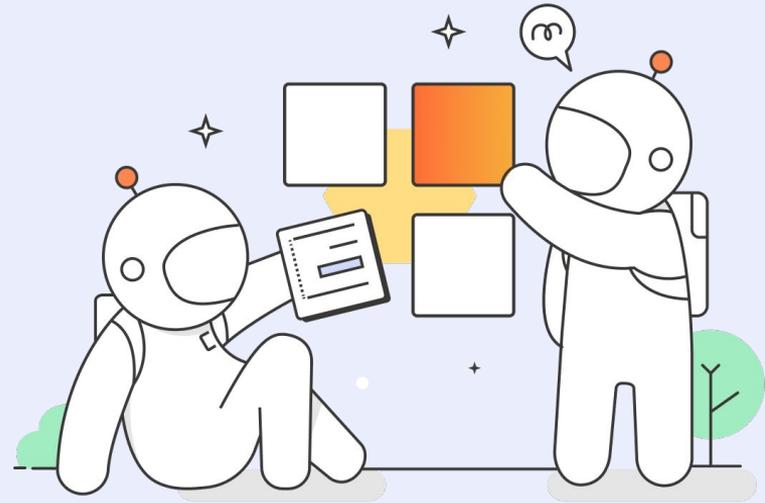
Scan the QR code or goto:

<https://go.postmn.io/ps-api101>



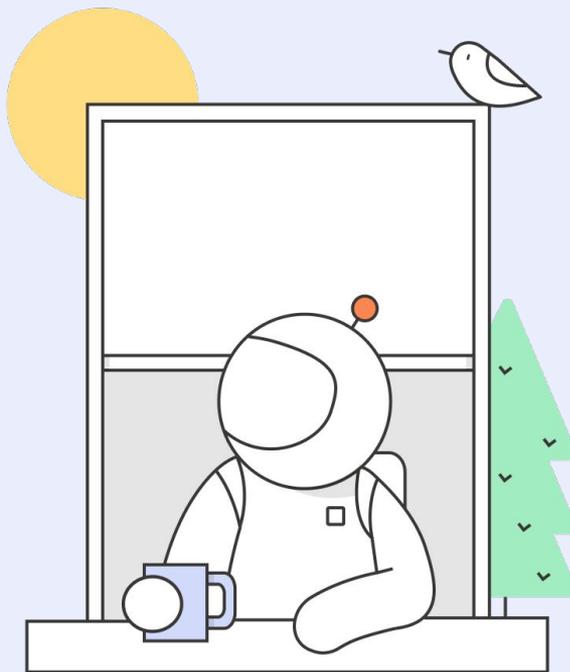
Response elements

- Status codes (200 OK, 201 Created, 404 [?])
- Headers
- Accessing body data



Follow Along

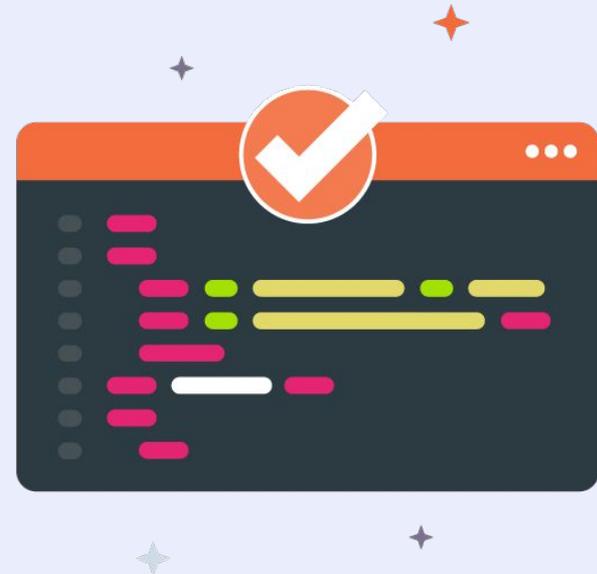
Let's work with a Real API



Recap

We learned request essentials to retrieve and update API data:

- Addresses
- Methods
- Parameters
- Body data
- Response codes



Continue Learning APIs as a Postman API Fundamentals Student Expert

- API and Postman training created by the Postman Team.
- Postman Student Expert Badge to showcase online and to future employers.
- Exclusive access to Postman meetups and events like Postman Galaxy, the Postman user conference.
- Invitation to the online Postman Student Expert Program community.
- Have the option to become a Student Leader in your community.

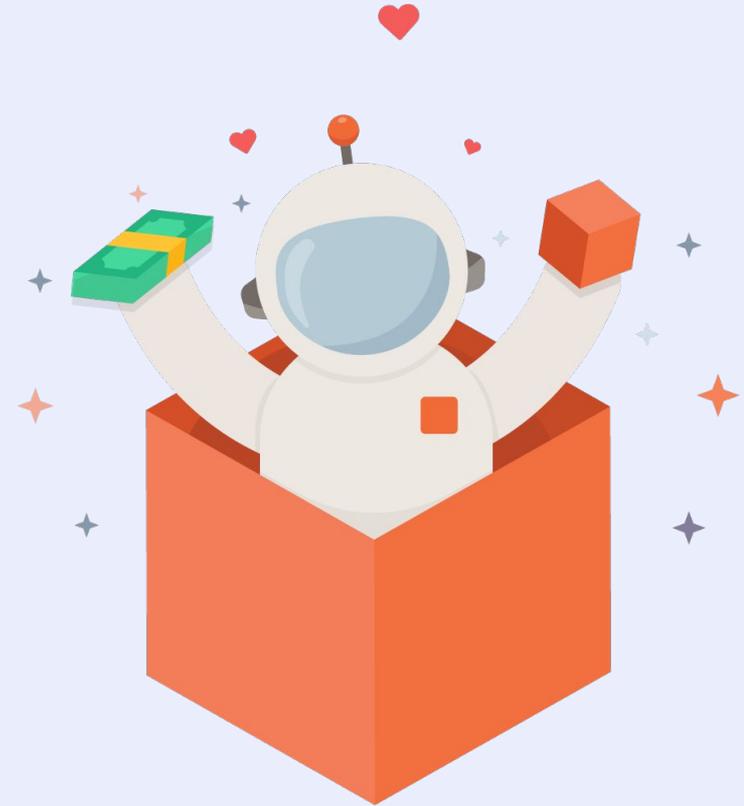


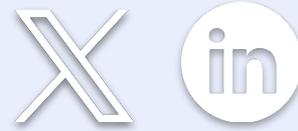
Postman API Fundamentals Student Expert

https://www.postman.com/student-program/student-expert/?utm_campaign=SP&utm_medium=referral&utm_source=student-leader&utm_term=U2FsdGVkX18p7ifehmPpjJGAXGrbfXxyU/O1zCVQI44kQftu9D1UHiYRc8u5OXbQ&utm_content=



Win Amazing Swag





Share your learnings with
#PostmanStudent





Blog writing competition!

1

Write what you learned during the session on your favorite platform like medium or dev.to

2

Send it to us, and we'll send cool swag to the coolest blog

Submit your blog URL to organizers



Submit your swag entries:

<https://forms.gle/xvZR54e7R3YK29QJ6>



Resources

learning.postman.com

Learning Center

explore.postman.com

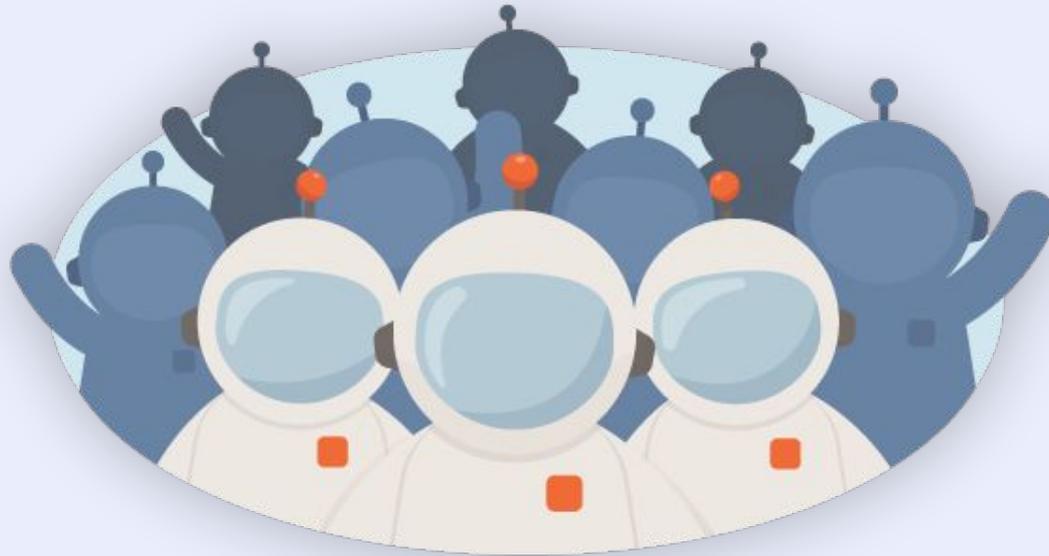
API Network

community.postman.com

Forum



Q&A



Thanks for coming!

Tell us how the workshop went:

<https://forms.gle/f5CjkkZYqZmcUc467>

