



POSTMAN

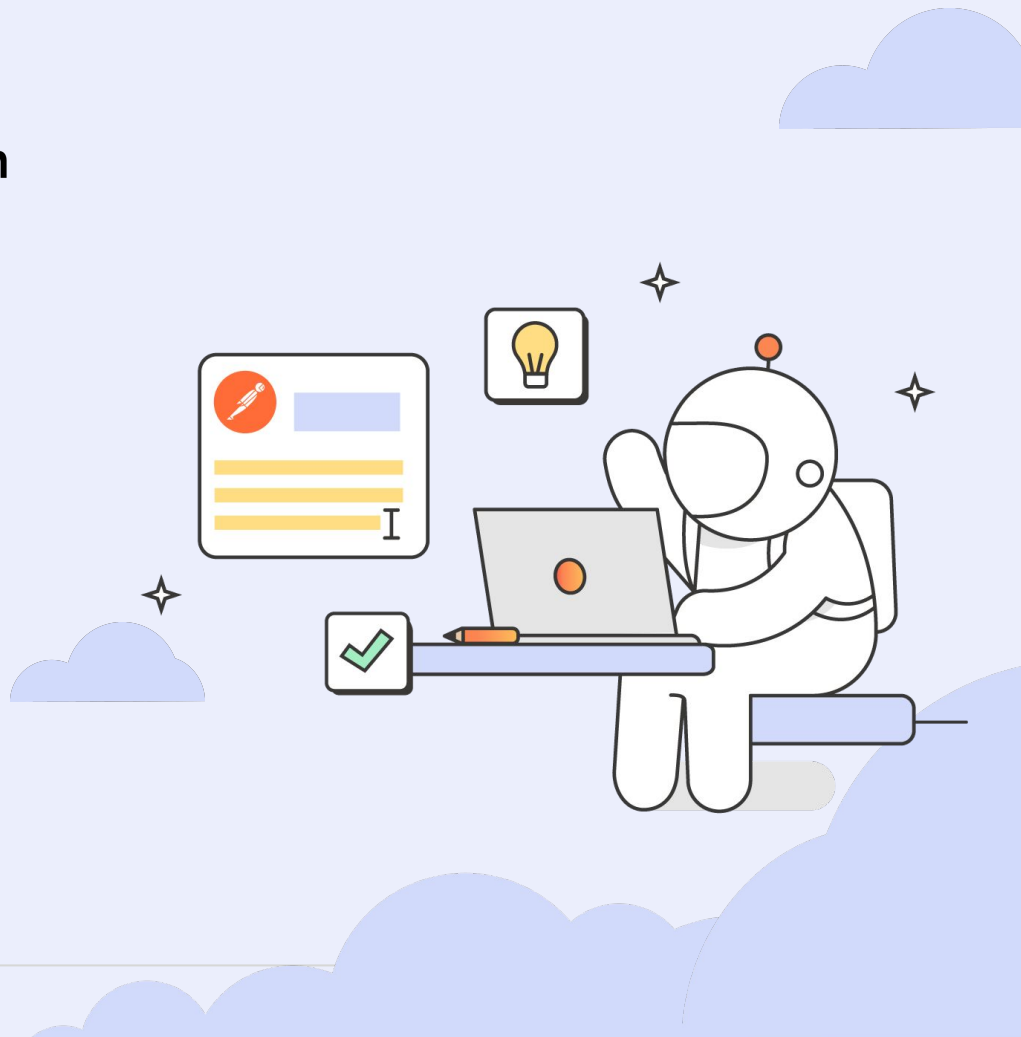
Student Program

# APIs 101 using Postman

Learn API essentials

~~Pokemon gotta catch em all~~

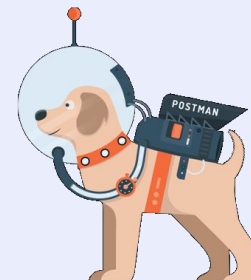
API's gotta fetch em all



# Who I am?



```
{  
  "name": "Ashish Malla",  
  "Username": "IM45145V",  
  "Roles": ["Events Lead @Hackerabad",  
            "Postman student Expert"],  
  "Socials": "linktr.ee/im45145v"  
}
```



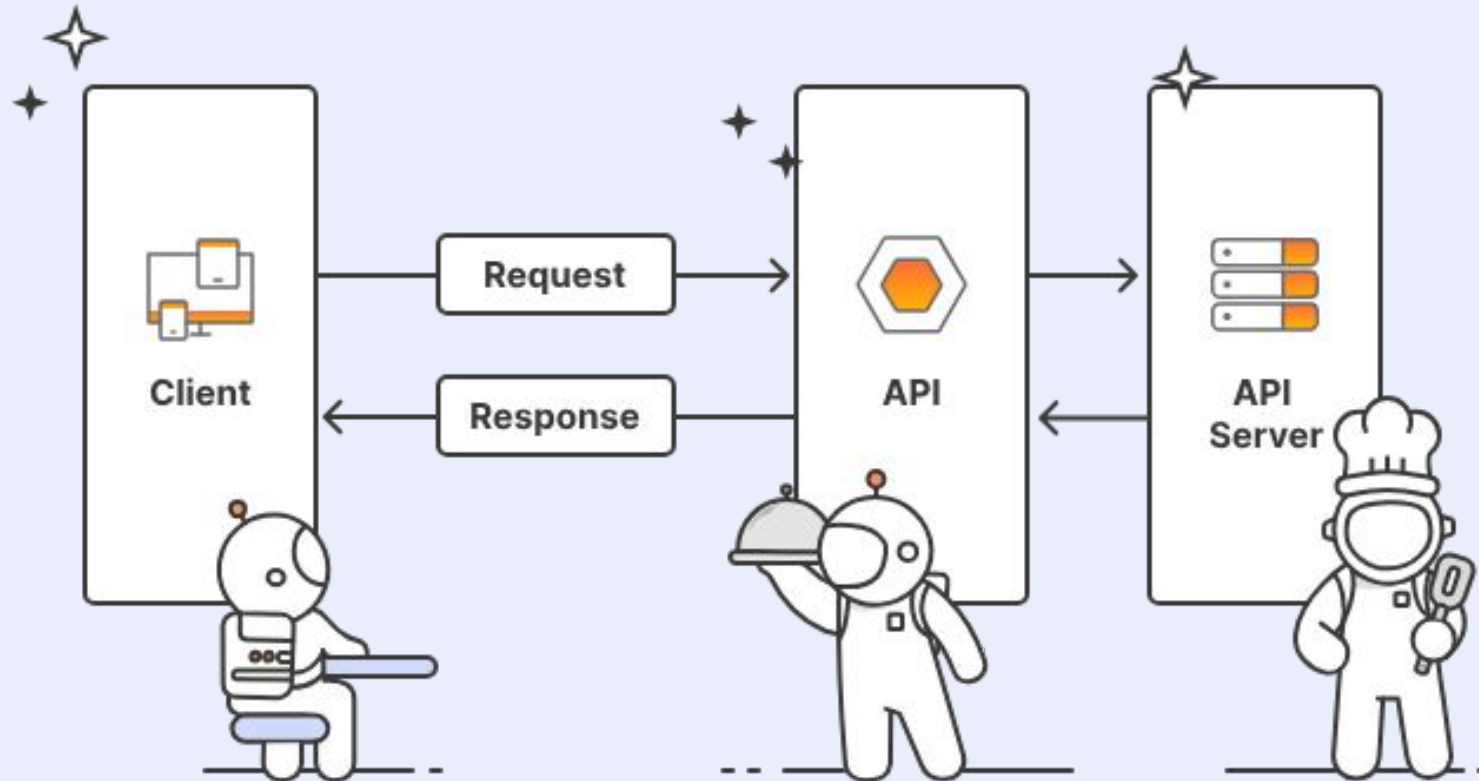


# Agenda

- 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.

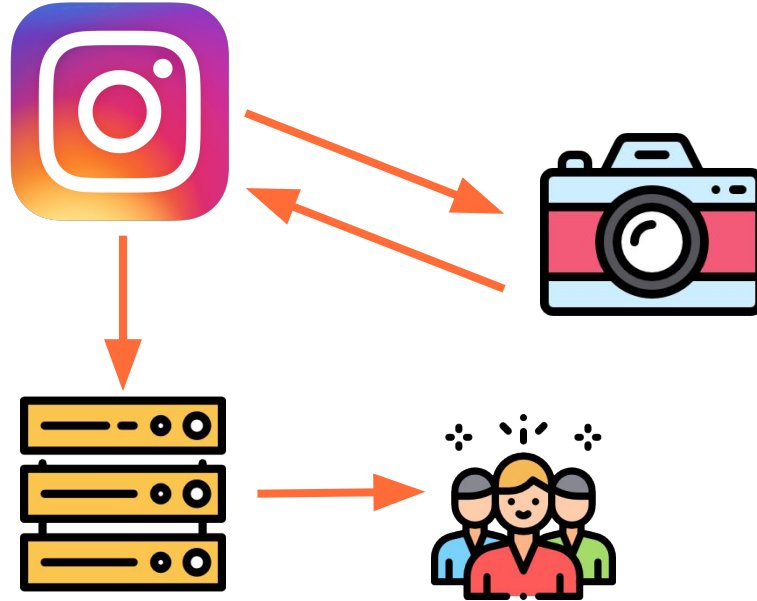


# APIs: A bit Technical



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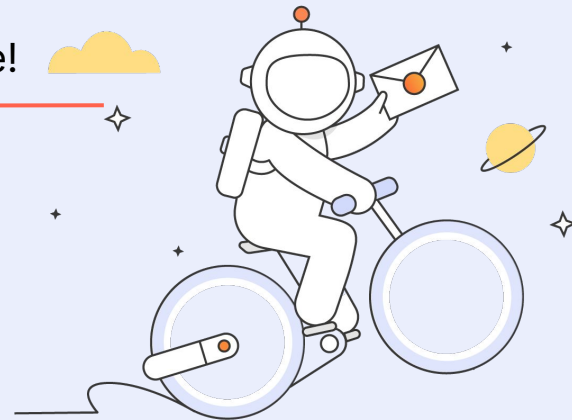
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# There's an API for everything

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

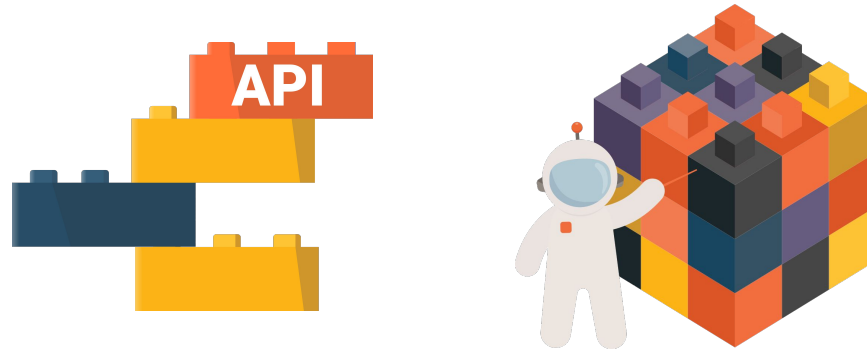




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# APIs TURN SOFTWARE INTO LEGO® BRICKS



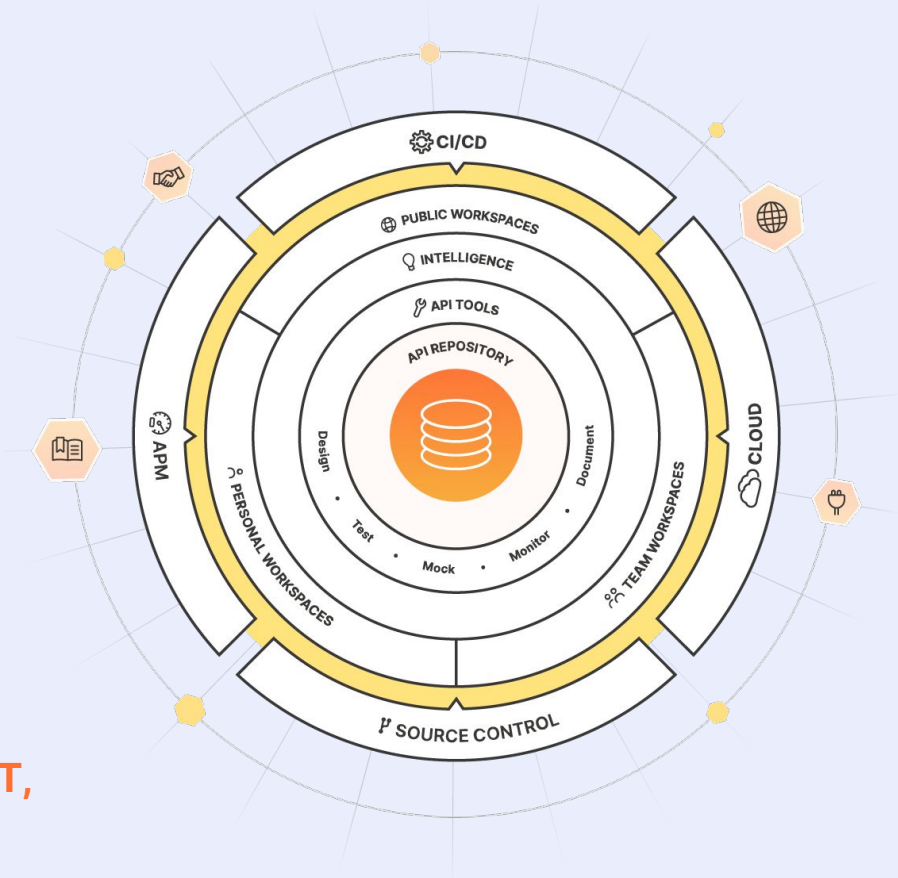


# Postman

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@linuxtechi:~$ 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:!aNULL:!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.
```

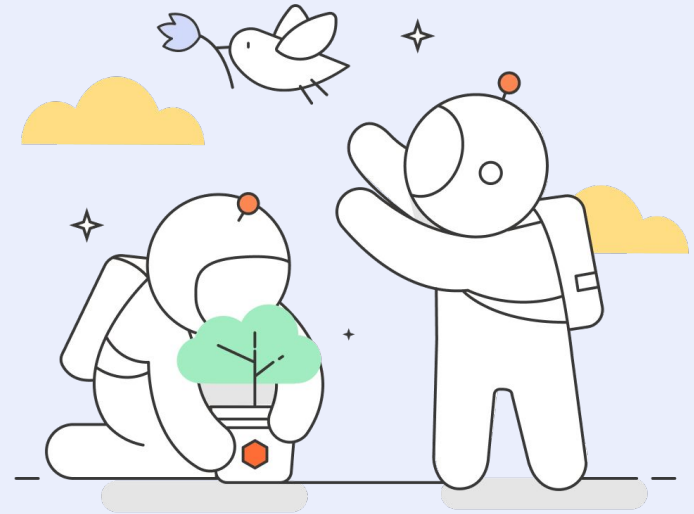
## Postman

The screenshot shows the Postman interface for a GET request to `https://reqres.in/api/`. The status is 404 Not Found, with a response time of 771 ms and a size of 6.5 KB. The response body is displayed in the 'Pretty' view, showing an HTML document with a Google Tag Manager script.

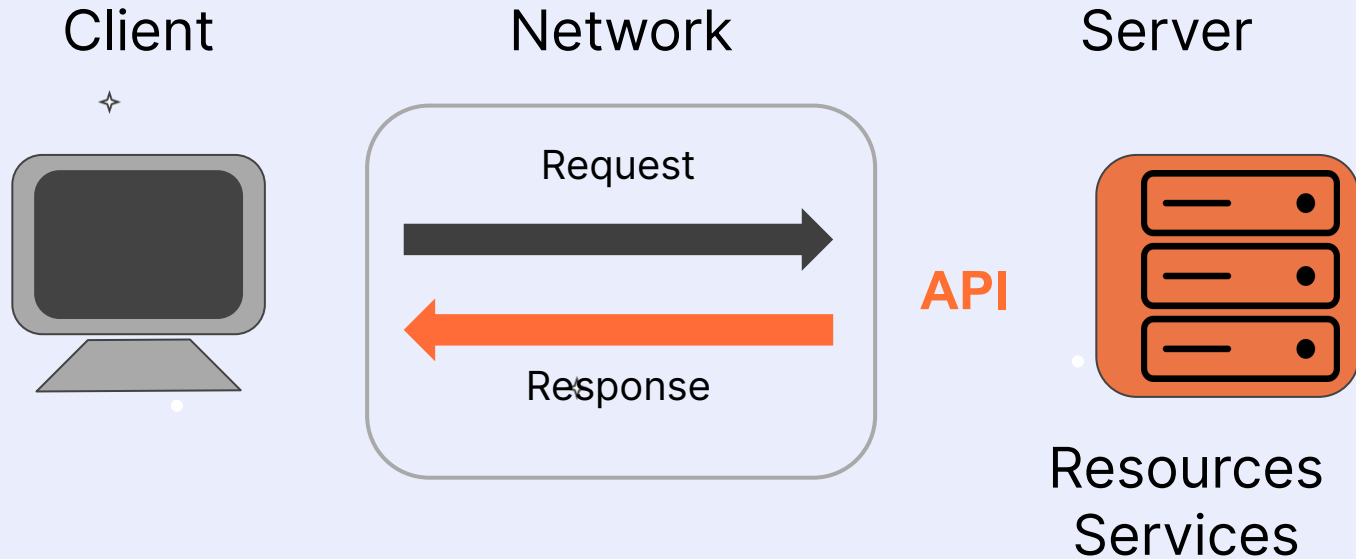
KEY	VALUE	DESCRIPTION
Key	Value	Description

```
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=' + l:'';
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-KB62KF');
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

https://www.google.com/search

Send

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

address of the server

**Host**

https://www.google.com/search

**Protocol**

The scheme  
of the request

**Path**

destination where  
request can be  
heard and executed



# Specifying Details

## Building your requests

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





# Requests - Body

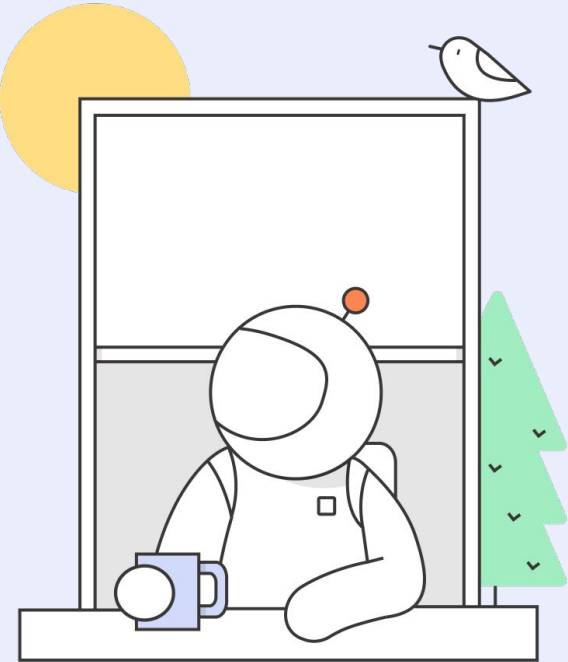
The data payload

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

## JSON

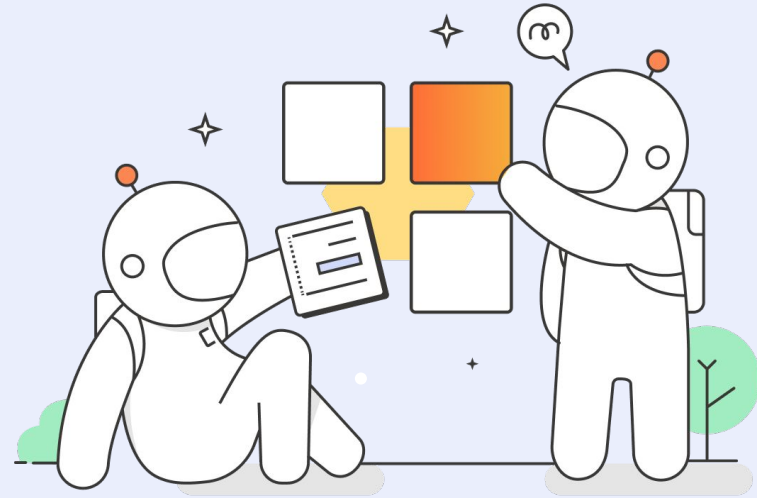
```
{  
  "name": "Beluga Mowa",  
  "email": "Mowa@Belu.ga",  
  "birthYear": 2003  
}
```

# Receiving Responses



## Response elements

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





**Follow Along**

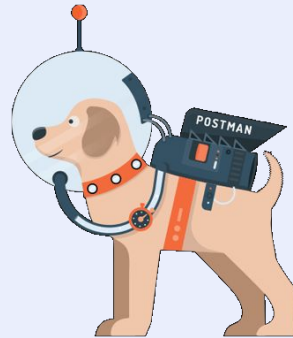
# Let's work with a Real API





# Scan the QR code or goto:

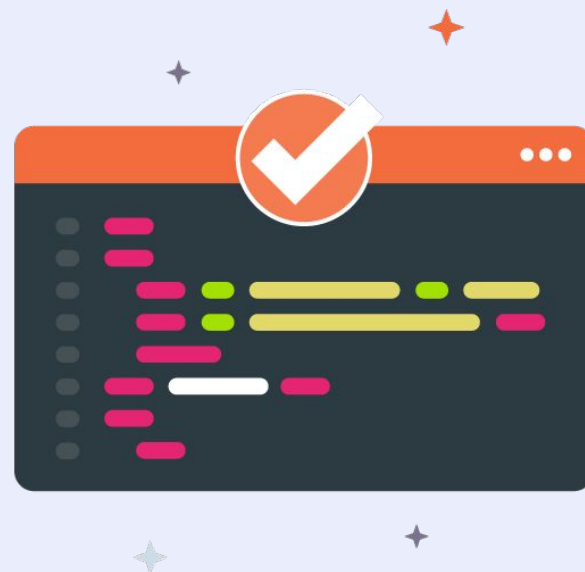
<https://go.postmn.io/ps-api101>



# 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.





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# Postman API Fundamentals Student Expert

[\*\*https://bit.ly/postmanhc\*\*](https://bit.ly/postmanhc)



# 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

<https://bit.ly/API101SWAG>



# Submit your swag entries:

**<https://bit.ly/API101SWAG>**



24 Hours left

# Resources

**learning.postman.com**

Learning Center

**explore.postman.com**

API Network

**community.postman.com**

Forum



## Q&A





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# Thanks for coming!

Tell us how the workshop went:

<https://bit.ly/API101FB>

