

# Server Configuration and api

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API

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# Goal

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- Memahami system kerja API
- Menggunakan API service
- Membuat API python (flask + ngrok)



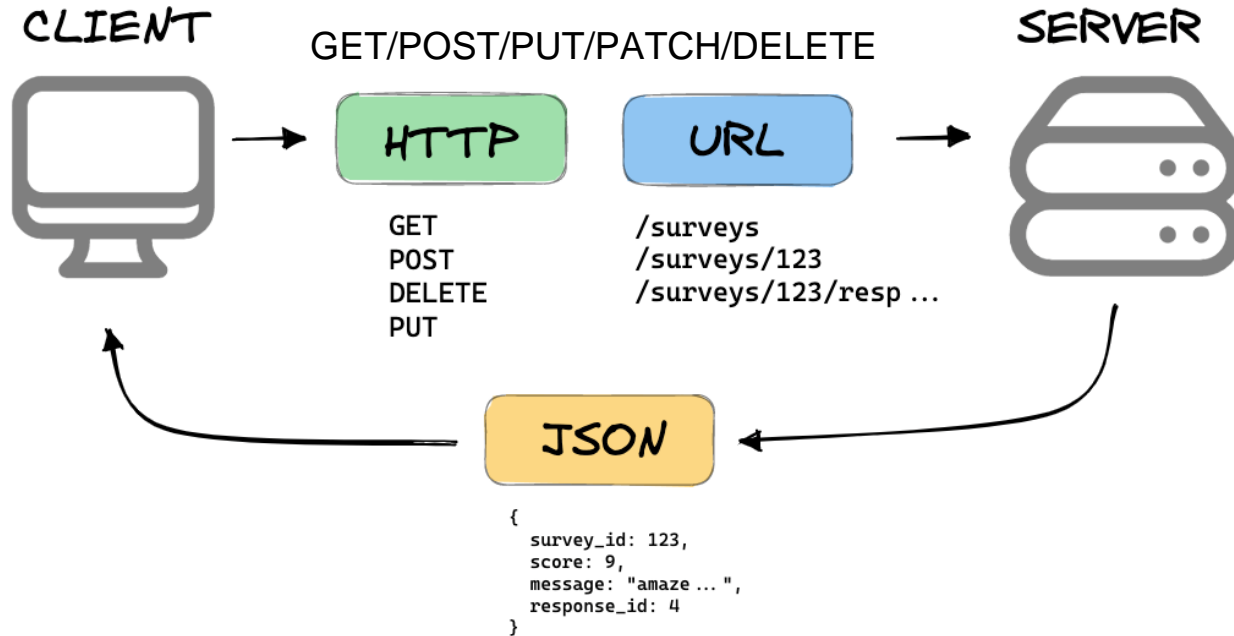
# 01

## Server API

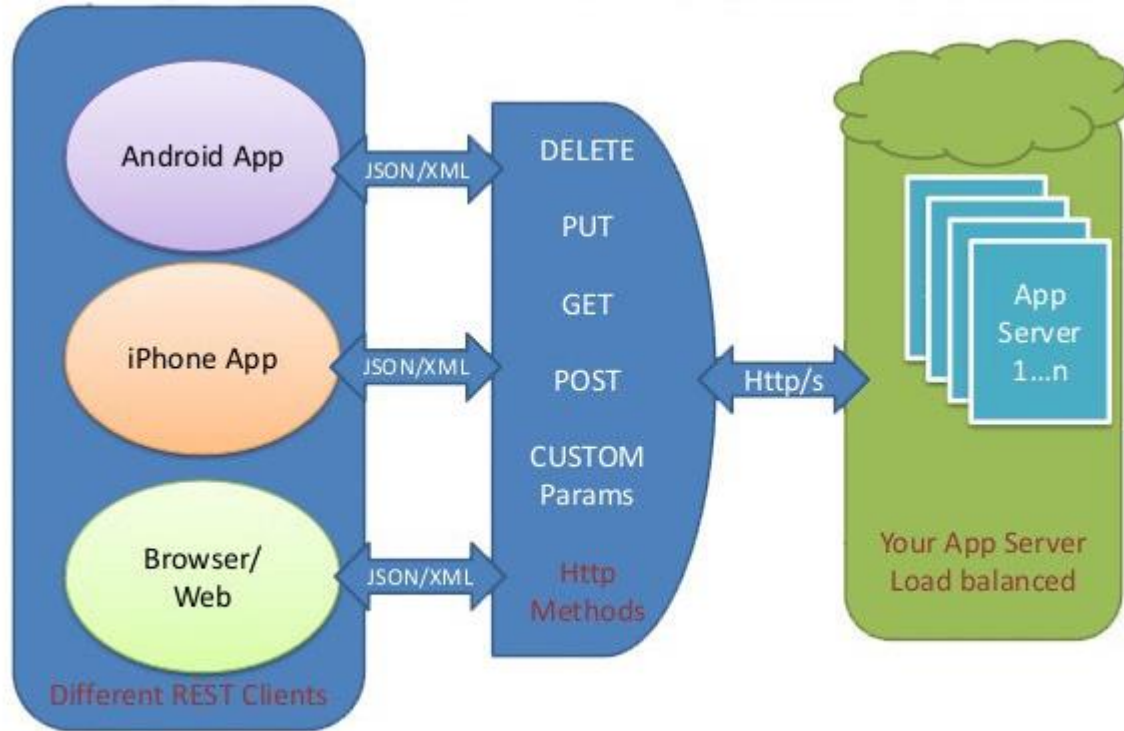
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Pengenalan

# Application Programming Interface (API)



# API Architecture



# Types of api

Public API  
Private API  
Partner API



# 02

## Postman

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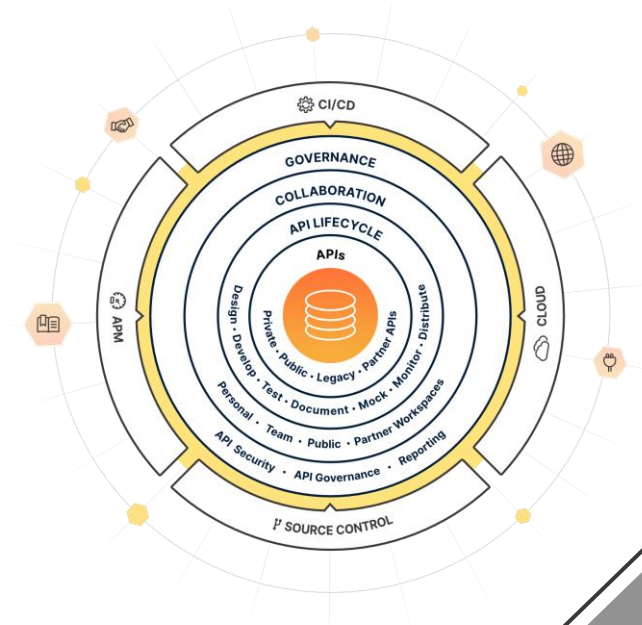
Menggunakan API public



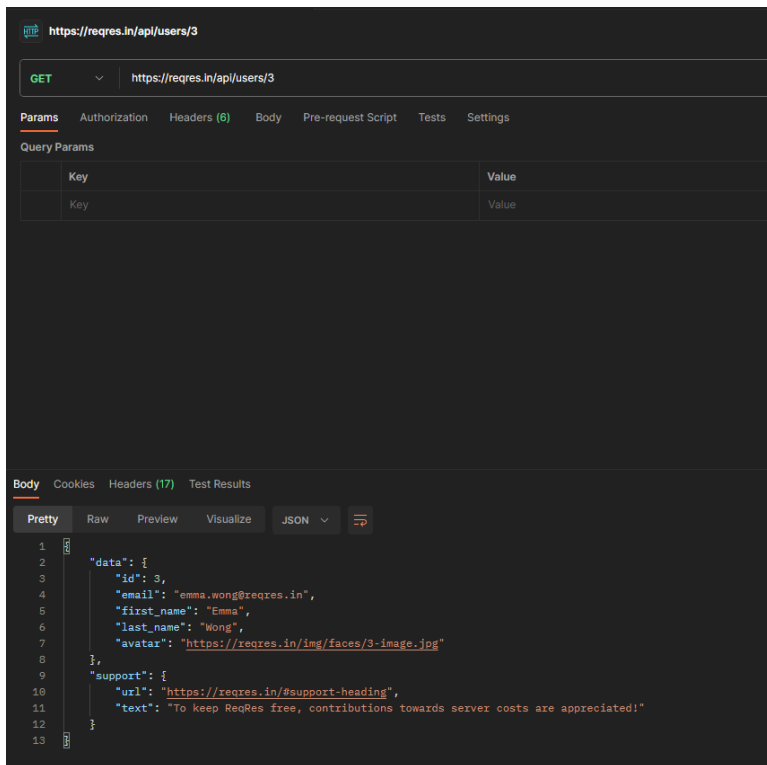
# APA itu PPostman

<https://www.postman.com/>

Postman is 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.



# Test with real API



<https://reqres.in/>

Request

[GET https://reqres.in/api/users/3](https://reqres.in/api/users/3)

[POST https://reqres.in/api/users](https://reqres.in/api/users)

```
{
```

```
  "name": "morpheus",
```

```
  "job": "leader"
```

```
}
```

[PUT https://reqres.in/api/users/2](https://reqres.in/api/users/2)

```
{
```

```
  "name": "morpheus",
```

```
  "job": "zion resident"
```

```
}
```

# Openweather

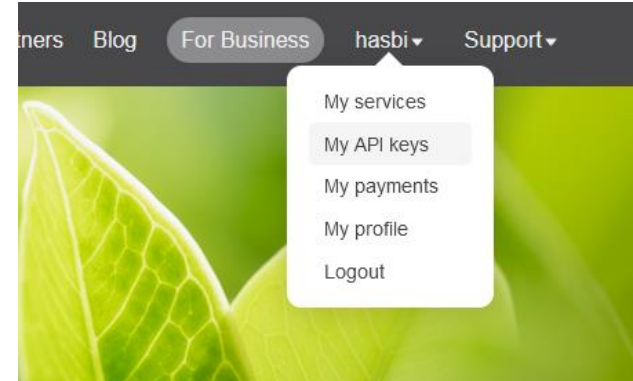
<https://openweathermap.org/api>

Create user pilih API keys yang akan digunakan

<https://api.openweathermap.org/data/2.5/weather?lat=44.34&lon=10.99&appid={API key}>

<https://api.openweathermap.org/data/2.5/weather?lat=-6.97&lon=107.65>

Gunakan API keys auth



Notice

API key was created successfully

New Products Services **API keys** Billing plans Payments Block logs My orders My profile Ask a question

You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.

Key	Name	Status	Actions
e3c2f74de0be96db8d6da6627f18168d	Default	Active	
cd29ca1be184dd10b8cc080fb8fce04b	weather	Active	

Create key

API key name

# API with python

Flask

# Flask

Pip install flask  
Pip install pyngrok

```
PS C:\Users\User\Documents\home\Project\FGD Tel-U 2023\API> pip install flask
Collecting flask
  Downloading Flask-2.3.2-py3-none-any.whl (96 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 96.9/96.9 kB 1.8 MB/s eta 0:00:00
Collecting Werkzeug>=2.3.3
  Downloading Werkzeug-2.3.6-py3-none-any.whl (242 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 242.5/242.5 kB 826.5 kB/s eta 0:00:00
Collecting Jinja2>=3.1.2
```

# Running flask in port 8000

```
PS C:\Users\User\Documents\home\Project\FGD Tel-U 2023\API> & C:/Python:
* Serving Flask app 'main'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production de
* Running on http://127.0.0.1:8000
Press CTRL+C to quit
127.0.0.1 - - [18/Jul/2023 04:58:59] "GET / HTTP/1.1" 200 -
```

127.0.0.1:8000/user/?user=has  
Add user parameter

The screenshot displays a REST client interface with a GET request to 127.0.0.1:8000/user/?user=has. The interface is divided into two main sections: the left pane shows the request details, and the right pane shows the response details.

**Request Details (Left Pane):**

- Method: GET
- URL: 127.0.0.1:8000
- Query Params:

Key	Value
user	has

**Response Details (Right Pane):**

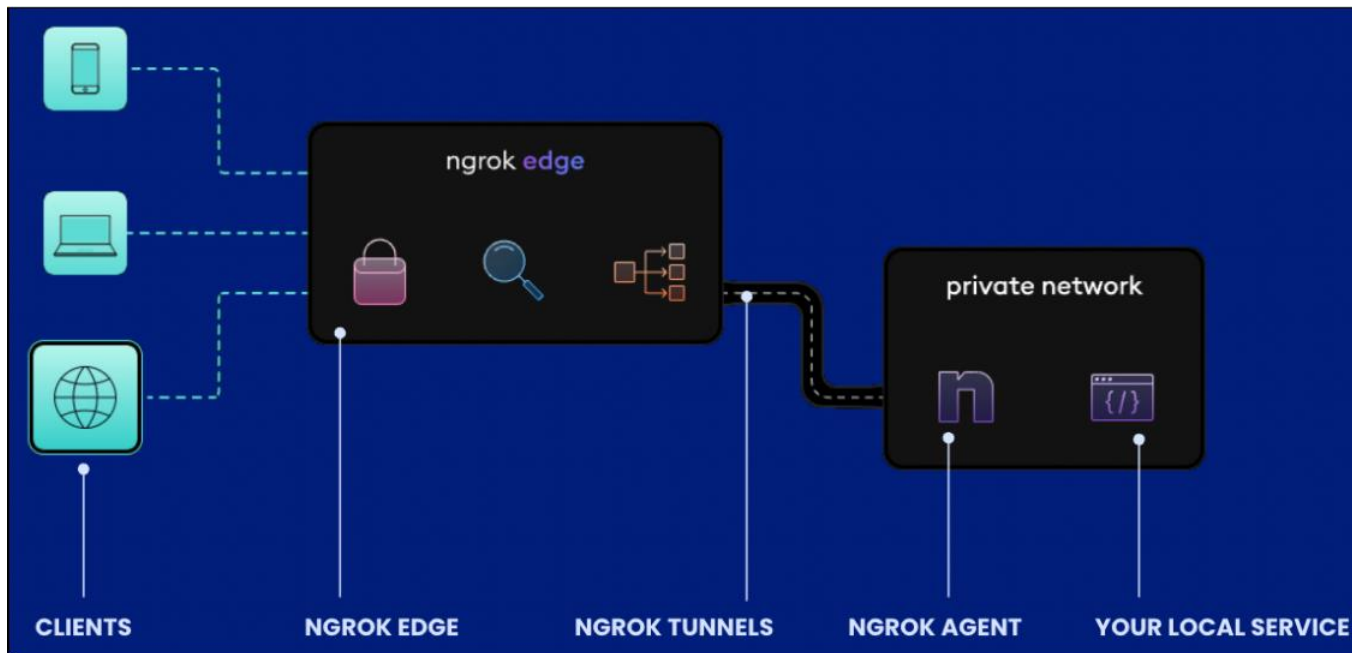
- Method: GET
- URL: 127.0.0.1:8000/user/?user=has
- Query Params:

Key	Value
user	has

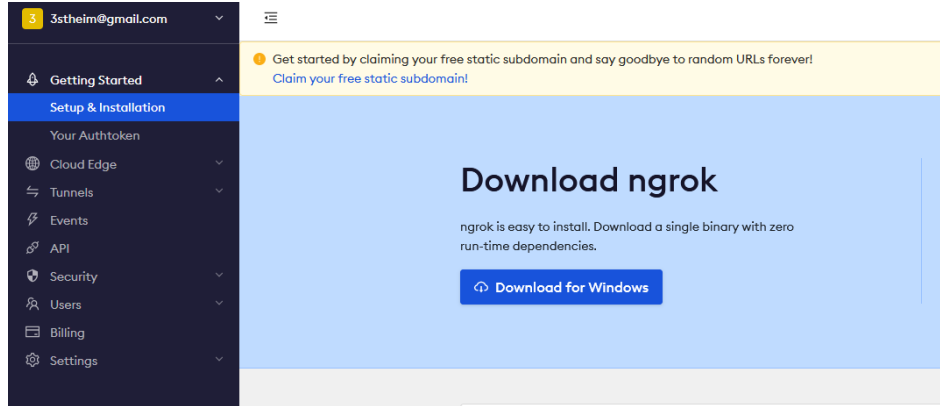
**Response Body (Bottom):**

```
1 [{"Page": "HOME", "Message": "Load HOME PAGE", "Timestamp": 1689631139.7207873}]
```

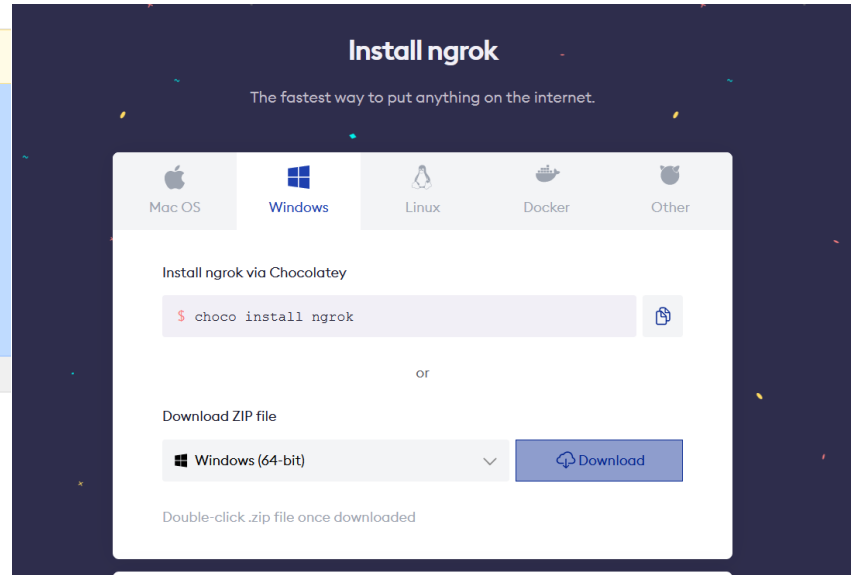
# NGROK



# NGROK Tunnel



Create user dan setup authtoken





# Auth via command line

```
PS C:\Users\User\Documents\home\Project\FGD Tel-U 2023\API> .\ngrok.exe config add-authtoken 2SiZtxydSJckb6ksQ3w6yJhRtoY_79P8QWwYALdKQmfAtTe6E
Authtoken saved to configuration file: C:\Users\User\AppData\Local\ngrok\ngrok.yml
PS C:\Users\User\Documents\home\Project\FGD Tel-U 2023\API>
```

ADD Auth Token

ngrok config add-authtoken <token>

Start a Tunnel

ngrok http 80

◆ Try the ngrok Kubernetes Ingress Controller: <https://ngrok.com/s/k8s-ingress>

Session Status	online
Account	3stheim@gmail.com (Plan: Free)
Version	3.3.1
Region	Asia Pacific (ap)
Latency	-
Web Interface	http://127.0.0.1:4040
Forwarding	https://4ac6-103-129-95-197.ngrok-free.app -> http://localhost:8000
Connections	
	t1l    opn    rt1    rt5    p50    p90
	0      0      0.00   0.00   0.00   0.00

Open forwarding link in other device <https://4ac6-103-129-95-197.ngrok-free.app>

# Thanks

Do you have any question?

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