

APRIL 28, 2022

INTRODUCTION TO

# FastAPI

WITH

*pyladies*  
Bratislava

HOSTED BY



# Introduction to Pyladies Bratislava

1. Chapter of Pyladies.com
2. Informal
3. The goal is to learn and/or help other learn something
4. Monthly meetups (sometimes more)



# Python 3

1. Install it
2. Choose an editor: pycharm, vscode, sublime, ...
3. Create a virtual environment and activate it (Unix):

a. `python -m venv .venv` (all)

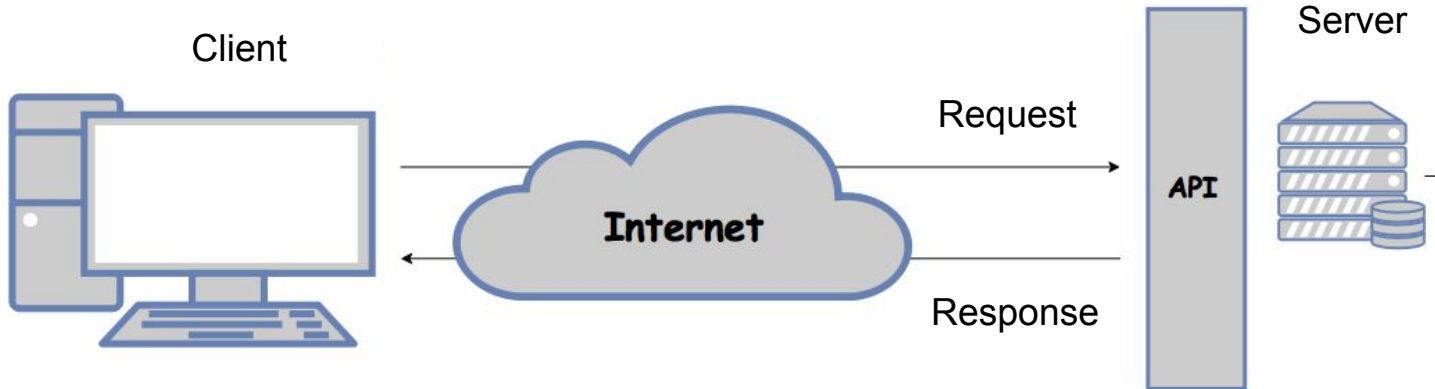
b. `source .venv/bin/activate` (Unix)

c. `.\.venv\Scripts\activate` (Windows)



# API - Web API

1. Communication between computer programs
2. Communication between computer programs using http:
  - a. Client makes a Request
  - b. Server sends a Response



# API - Web API - Detail

Sender of packet



192.16.00.12



Recipient of packet



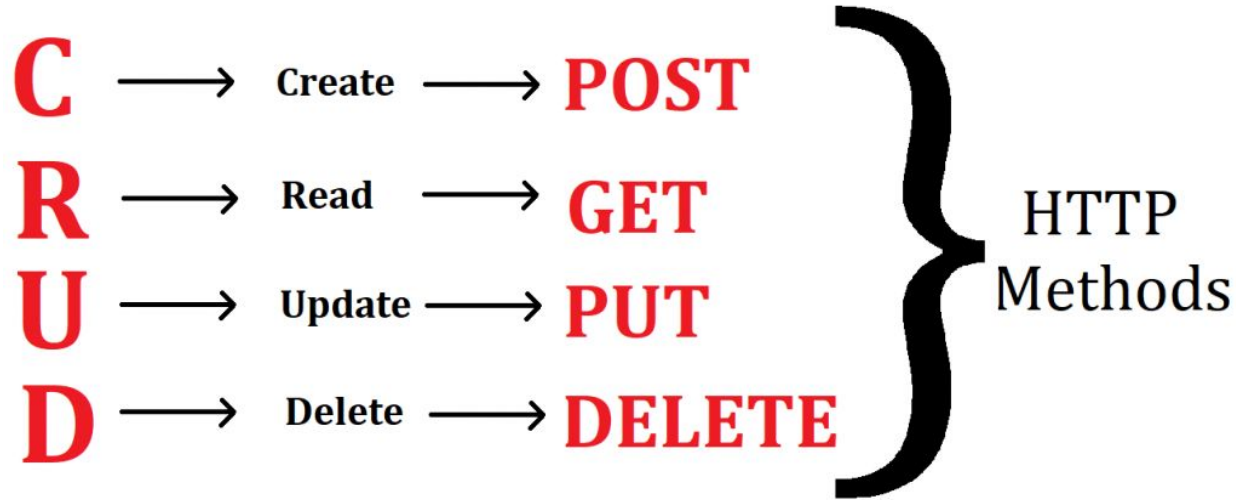
The Internet



192.00.00.75



# HTTP Methods



# Python 3 Web API with FastAPI

- `pip install fastapi`
- `pip install "uvicorn[standard]"` (on Windows `pip install uvicorn`)

## **Exercise:**

1. Write one GET endpoint:
  - a. Run the server
  - b. Test your endpoint

# Testing your API

1. Use the generated docs
  - Go to localhost:8000/docs
2. Use pytest
  - `pip install pytest`
  - Use the FastAPI TestClient



# Validation in FastAPI

- Built in validation with Pydantic

## **Exercise:**

1. Write one POST endpoint:
  - a. Run the server
  - b. Test your endpoint

# Exercise

- Make a request go around the table
- Filipa: 192.168.50.30:8000
- Karin: 192.168.50.31:8000
- Miroslava: 192.168.50.33:8000
- Fatma: 192.168.50.34:8000
- Danka: 192.168.50.32:8000

# Virtual environment (troubleshooting Windows)

1. Prepare your environment (Visual Studio Code on Windows)
  - a. `python -m venv .venv`
2. In Select Interpreter > choose the newly created environment (.venv)
  - a. for this to work I had to do:
  - b. find PowerShell app
  - c. right-click and select `Run as admin`
  - d. write this command: `Set-ExecutionPolicy RemoteSigned`
  - e. save with `Yes for all`
3. When the env is activated you see the (<name>) on the beginning of the powershell
4. Now you can install some python packages/libraries > <https://pypi.org/>
  - a. `python -m pip install <package>`