### **README**

### **CVE Data Downloader and Nuclei Scanner**

This project automates the process of downloading CVE (Common Vulnerabilities and Exposures) data, extracting CVE IDs, categorizing them by technology, and scanning a target URL for vulnerabilities using the Nuclei scanner.

#### **Features**

- Downloads CVE data for specified years from the NIST NVD.
- Extracts CVE IDs from the downloaded data.
- Categorizes CVEs based on various technologies.
- Filters CVEs by year and runs a vulnerability scan using Nuclei.
- Outputs results to specified files.

## Requirements

- Python 3.x
- requests library
- gzip module (included with Python)
- json module (included with Python)
- glob module (included with Python)
- subprocess module (included with Python)
- Nuclei scanner installed and available in your system's PATH.
- Install the required Python packages (if needed):

```
pip install requests
```

 Make sure you have Nuclei installed. You can find instructions on the Nuclei GitHub page.

### **Usage**

- 1. Modify the constants in the script ( JSON\_DIR, NUCLEI\_TEMPLATE\_DIR, etc.) to match your directory structure.
- 2. Run the script:

```
python <script-name>.py
```

1. When prompted, enter the target URL to scan.

# **Output**

- The script generates several output files:
  - extracted\_cve\_ids.txt: Contains all extracted CVE IDs.
  - cve\_ids\_by\_technology.txt: Categorizes CVE IDs by technology.
  - filtered\_cves.txt: Contains CVE IDs filtered by year.
  - res-output.txt: Contains the results of the Nuclei scan.

# **Example**

Enter the target URL (e.g., <a href="https://example.com">https://example.com</a>): <a

#### **Notes**

- Ensure that you have the necessary permissions to scan the target URL.
- The script currently downloads CVE data for the years 2018 to 2024. You can modify the START\_YEAR and END\_YEAR constants in the script as needed.