☑ Required APIs & Tools

🔑 1. Google Gemini API

- **Use**: For analyzing scan results and generating reports.
- **Signup**:
  - Visit: https://makersuite.google.com/app
  - Sign in with your Google account.
  - Go to: https://aistudio.google.com/app/apikey
  - Generate and copy your API key.
- **Replace** the line in your code:

  ```
  python
  CopyEdit
  GEMINI_API_KEY = "gemini_api_key_here"
  ```

  with:

  ```
  python
  CopyEdit
  GEMINI_API_KEY = os.getenv("GEMINI_API_KEY")  # for security (optional)
  ```

🛠 2. ProjectDiscovery Nuclei

- **Use**: Scanning target for vulnerabilities using pre-built templates.
- **Installation**:

  ```
  bash
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  go install -v github.com/projectdiscovery/nuclei/v2/cmd/nuclei@latest
  ```

- Add Go binary to your path (if not already):

  ```
  bash
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  export PATH=$PATH:$(go env GOPATH)/bin
  ```

- **Update Nuclei Templates**:

  ```
  bash
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  nuclei -update-templates
  ```

📄 3. Pandoc (for Markdown to PDF conversion)

- **Install on Kali/Linux**:

```
bash
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sudo apt update && sudo apt install pandoc -y
```

Python Dependencies

Install required Python libraries:

```
bash
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pip install google-generativeai
```

You can also keep them in a `requirements.txt`:

```
txt
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google-generativeai
```

and run:

```
bash
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pip install -r requirements.txt
```

Project Directory Structure

Recommended structure:

```
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nuclei_gemini_scanner/
├── scanner.py
├── requirements.txt
└── nuclei_scans/
```

.env (Optional but recommended)

Store API keys in a `.env` file:

```
ini
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GEMINI_API_KEY=your_google_api_key
```

Install and use:

```
bash
```

```
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pip install python-dotenv
```

Modify script to load it:

```
python
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from dotenv import load_dotenv
load_dotenv()
GEMINI_API_KEY = os.getenv("GEMINI_API_KEY")
```

🚨 Other Important Guidelines

- ⚠️ **Target must include `http://` or `https://`**
- 🔐 **Don't hardcode** secrets in code. Use environment variables or `.env`.
- 🧪 **Test each step individually** (Nuclei scan, Gemini analysis, Pandoc PDF generation).
- 📦 **Back up reports**, especially if you're scanning multiple domains.
- 🧠 **Understand the templates** you're using with Nuclei to avoid false positives.

🏁 Final Commands to Run the Script

```
bash
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python3 scanner.py https://example.com
```

This will:

1. Run the Nuclei scan.
2. Use Gemini to create a Markdown report.
3. Convert it to a PDF.
4. Save it to your Desktop (or the path you set).