references.html

```
{% extends "base.html" %}
{% block content %}
<div style="max-width:1400px;margin:0 auto 32px auto;padding-top:20px;">
<!-- Page Header -->
<h1 style="color:#63a4ff;">References &amp; Resources</h1>
<p style="color:#e2e8f0;font-size:1.1em;line-height:1.6;margin-bottom:32px;">
This page contains all the authoritative sources, APIs, documentation,
and resources that power VulnEdu.
Understanding these resources helps you dive deeper into cybersecurity
vulnerability research and build your own security tools.
</p>
<!-- Quick Navigation -->
<div style="background:#1a2236;border-radius:12px;padding:20px;margin-
bottom:32px;">
<h3 style="color:#63a4ff;margin:0 0 16px 0;">Quick Navigation</h3>
<div style="display:grid;grid-template-columns:repeat(auto-
fit,minmax(200px,1fr));gap:12px;">
<a href="#primary-data" style="color:#63a4ff;text-decoration:none;padding:8px
12px;background:#263159;border-radius:6px;font-weight:500;">🗄 Primary Data
Sources</a>
<a href="#apis-feeds" style="color:#63a4ff;text-decoration:none;padding:8px
12px;background:#263159;border-radius:6px;font-weight:500;">🔌 APIs &amp; Data
Feeds</a>
<a href="#technical-docs" style="color:#63a4ff;text-
decoration:none;padding:8px 12px;background:#263159;border-radius:6px;font-
weight:500;">⚙ Technical Documentation</a>
<a href="#tools-frameworks" style="color:#63a4ff;text-
decoration:none;padding:8px 12px;background:#263159;border-radius:6px;font-
weight:500;">🛠 Development Tools</a>
</div>
</div>
<!-- Primary Data Sources -->
<section id="primary-data" style="background:#1a2236;border-
radius:14px;padding:28px;margin-bottom:32px;">
<h2 style="color:#63a4ff;margin:0 0 20px 0;display:flex;align-items:center;">
<span style="margin-right:12px;">🗄</span> Primary Data Sources
</h2>
<p style="color:#a9adc1;margin-bottom:24px;">The foundational
databases and organizations that provide the core vulnerability data used in
VulnEdu.</p>
<div style="display:grid;gap:20px;">
```

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<!-- NVD -->
<div style="border-left:4px solid #f8a541;padding-left:20px;">
<h3 style="color:#fca311;margin:0 0 8px 0;">National
Vulnerability Database (NVD)</h3>
<div style="color:#e2e8f0;margin-bottom:12px;">
<strong>What:</strong> The U.S. government repository of
vulnerability data based on CVE identifiers.<br>
<strong>Why:</strong> Provides comprehensive CVSS scoring,
detailed analysis, and machine-readable data feeds.<br>
<strong>How we use it:</strong> Primary source for CVE
details, severity scores, and real-time vulnerability data via API.
</div>
<div style="display:flex;gap:16px;flex-wrap:wrap;">
<a href="https://nvd.nist.gov/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">Official Website</a>
<a href="https://nvd.nist.gov/developers" target="_blank"
style="color:#63a4ff;text-decoration:underline;">API Documentation</a>
<a href="https://nvd.nist.gov/developers/vulnerabilities"
target="_blank" style="color:#63a4ff;text-decoration:underline;">Vulnerability
API</a>
<a href="https://nvd.nist.gov/general/faq" target="_blank"
style="color:#63a4ff;text-decoration:underline;">FAQ &amp; Usage
Guidelines</a>
</div>
</div>
<!-- MITRE CVE -->
<div style="border-left:4px solid #42d392;padding-left:20px;">
<h3 style="color:#42d392;margin:0 0 8px 0;">MITRE CVE
Program</h3>
<div style="color:#e2e8f0;margin-bottom:12px;">
<strong>What:</strong> The authoritative source for CVE
identifiers and the CVE naming standard.<br>
<strong>Why:</strong> CVE IDs provide universal references
for vulnerabilities across all security tools.<br>
<strong>How we use it:</strong> CVE ID validation, cross-referencing, and
understanding vulnerability disclosure processes.
</div>
<div style="display:flex;gap:16px;flex-wrap:wrap;">
<a href="https://www.cve.org/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">CVE Main Site</a>
</div>
</div>
<!-- MITRE CWE -->
<div style="border-left:4px solid #3b8ded;padding-left:20px;">
<h3 style="color:#3b8ded;margin:0 0 8px 0;">MITRE Common
Weakness Enumeration (CWE)</h3>
```

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<div style="color:#e2e8f0;margin-bottom:12px;">
<strong>What:</strong> A comprehensive catalog of software
and hardware weakness types.<br>
<strong>Why:</strong> Provides classification framework
for understanding root causes of vulnerabilities.<br>
<strong>How we use it:</strong> CWE mapping, weakness
analysis, and educational content about vulnerability patterns.
</div>
<div style="display:flex;gap:16px;flex-wrap:wrap;">
<a href="https://cwe.mitre.org/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">CWE Main Site</a>
<a href="https://cwe.mitre.org/data/index.html"
target="_blank" style="color:#63a4ff;text-decoration:underline;">CWE Data
Downloads</a>
<a href="https://cwe.mitre.org/top25/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">CWE Top 25</a>
</div>
</div>
</div>
</section>
<!-- APIs & Data Feeds -->
<section id="apis-feeds" style="background:#1a2236;border-
radius:14px;padding:28px;margin-bottom:32px;">
<h2 style="color:#63a4ff;margin:0 0 20px 0;display:flex;align-items:center;">
<span style="margin-right:12px;"> 🔦 </span> APIs &amp; Data Feeds
</h2>
<p style="color:#a9adc1;margin-bottom:24px;">Technical interfaces and
data formats used to programmatically access vulnerability information.</p>
<div style="display:grid;gap:20px;">
<!-- NVD API 2.0 -->
<div style="background:#232b45;border-radius:8px;padding:20px;">
<h3 style="color:#63a4ff;margin:0 0 12px 0;">NVD API 2.0</h3>
<div style="color:#e2e8f0;margin-bottom:16px;">
RESTful API providing JSON responses for CVE data, CVSS
metrics, and vulnerability details.
</div>
<div style="background:#1a2236;padding:16px;border-radius:6px;margin-
bottom:16px;">
<code style="color:#42d392;font-family:monospace;">
GET https://services.nvd.nist.gov/rest/json/cves/2.0
</code>
</div>
<div style="display:grid;grid-template-columns:repeat(auto-
fit,minmax(200px,1fr));gap:12px;">
<div>
<strong style="color:#fca311;">Rate Limits:</strong>
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<br>
<span style="color:#a9adc1;">5 requests/30 sec (no
key)<br>50 requests/30 sec (with key)</span>
</div>
<div>
<strong style="color:#fca311;">Response Format:</strong><br>
<span style="color:#a9adc1;">JSON with CVE objects</span>
</div>
<div>
<strong style="color:#fca311;">Key Parameters:</strong><br>
<span style="color:#a9adc1;">cveId, pubStartDate,
lastModStartDate</span>
</div>
</div>
</div>
<!-- Data Formats -->
<div style="background:#232b45;border-radius:8px;padding:20px;">
<h3 style="color:#63a4ff;margin:0 0 12px 0;">Data Formats &amp;
Standards</h3>
<div style="display:grid;grid-template-columns:repeat(auto-
fit,minmax(250px,1fr));gap:16px;">
<div>
<strong style="color:#42d392;">CVE JSON 5.0</strong>
<br>
<span style="color:#a9adc1;">Standard format for CVE
vulnerability data</span>
</div>
<div>
<strong style="color:#42d392;">CVSS v3.1</strong><br>
<span style="color:#a9adc1;">Vulnerability scoring
methodology</span>
</div>
<div>
<strong style="color:#42d392;">CWE XML</strong><br>
<span style="color:#a9adc1;">Machine-readable weakness
catalog</span>
</div>
</div>
</div>
</div>
</section>
<!-- Technical Documentation -->
<section id="technical-docs" style="background:#1a2236;border-
radius:14px;padding:28px;margin-bottom:32px;">
<h2 style="color:#63a4ff;margin:0 0 20px 0;display:flex;align-items:center;">
<span style="margin-right:12px;">⚙</span> Technical Documentation &amp;
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    Standards
  </h2>
  <div style="display:grid;gap:20px;">
  <!-- CVSS -->
  <div style="background:#232b45;border-radius:8px;padding:20px;">
  <h3 style="color:#63a4ff;margin:0 0 12px 0;">Common
  Vulnerability Scoring System (CVSS)</h3>
  <div style="color:#e2e8f0;margin-bottom:16px;">
  Industry standard for assessing the severity of computer
  system security vulnerabilities.
  </div>
  <div style="display:flex;gap:16px;flex-wrap:wrap;">
  <a href="https://www.first.org/cvss/" target="_blank"
  style="color:#63a4ff;text-decoration:underline;">CVSS Official Site</a>
  <a href="https://www.first.org/cvss/v3.1/specification-document"
  target="_blank" style="color:#63a4ff;text-decoration:underline;">CVSS v3.1
  Specification</a>
  <a href="https://www.first.org/cvss/calculator/3.1" target="_blank"
  style="color:#63a4ff;text-decoration:underline;">CVSS Calculator</a>
  </div>
  </div>
  <!-- Security Standards -->
  <div style="background:#232b45;border-radius:8px;padding:20px;">
  <h3 style="color:#63a4ff;margin:0 0 12px 0;">Security
  Standards &amp; Guidelines</h3>
  <div style="display:grid;grid-template-columns:repeat(auto-
  fit,minmax(300px,1fr));gap:16px;">
  <div>
  <strong style="color:#42d392;">ISO 27001/27002</strong><br>
  <span style="color:#a9adc1;">Information security
  management standards</span><br>
  <a href="https://www.iso.org/isoiec-27001-information-security.html"
  target="_blank" style="color:#63a4ff;text-decoration:underline;">Learn
  More</a>
  </div>
  <div>
  <strong style="color:#42d392;">NIST SP 800-53</strong><br>
  <span style="color:#a9adc1;">Security controls for federal information
  systems</span><br>
  <a href="https://csrc.nist.gov/publications/detail/sp/800-53/rev-5/final"
  target="_blank" style="color:#63a4ff;text-
  decoration:underline;">Publication</a>
  </div>
  <div>
  <strong style="color:#42d392;">PCI DSS</strong><br>
  <span style="color:#a9adc1;">Payment card industry
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data security standard</span><br>
<a href="https://www.pcisecuritystandards.org/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">Official Site</a>
</div>
</div>
</div>
</div>
</section>
<!-- Development Tools & Frameworks -->
<section id="tools-frameworks" style="background:#1a2236;border-
radius:14px;padding:28px;margin-bottom:32px;">
<h2 style="color:#63a4ff;margin:0 0 20px 0;display:flex;align-items:center;">
<span style="margin-right:12px;">🛠️</span> Development Tools &amp; Frameworks
</h2>
<div style="display:grid;gap:20px;">
<!-- Web Technologies -->
<div style="background:#232b45;border-radius:8px;padding:20px;">
<h3 style="color:#63a4ff;margin:0 0 16px 0;">Web Development
Stack</h3>
<div style="display:grid;grid-template-columns:repeat(auto-
fit,minmax(200px,1fr));gap:16px;">
<div>
<strong style="color:#42d392;">Flask</strong><br>
<span style="color:#a9adc1;">Python web framework</span><br>
<a href="https://flask.palletsprojects.com/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">Documentation</a>
</div>
<div>
<strong style="color:#42d392;">Chart.js</strong><br>
<span style="color:#a9adc1;">JavaScript charting library</span><br>
<a href="https://www.chartjs.org/" target="_blank" style="color:#63a4ff;text-
decoration:underline;">Documentation</a>
</div>
<div>
<strong style="color:#42d392;">Pandas</strong><br>
<span style="color:#a9adc1;">Python data analysis library</span><br>
<a href="https://pandas.pydata.org/docs/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">Documentation</a>
</div>
<div>
<strong style="color:#42d392;">Requests</strong><br>
<span style="color:#a9adc1;">Python HTTP library</span><br>
<a href="https://requests.readthedocs.io/" target="_blank"
style="color:#63a4ff;text-decoration:underline;">Documentation</a>
</div>
</div>
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    </div>
    <!-- Security Tools -->
    <div style="background:#232b45;border-radius:8px;padding:20px;">
    <h3 style="color:#63a4ff;margin:0 0 16px 0;">Security Analysis
    Tools</h3>
    <div style="display:grid;grid-template-columns:repeat(auto-
    fit,minmax(250px,1fr));gap:16px;">
    <div>
    <strong style="color:#f47174;">OpenVAS</strong><br>
    <span style="color:#a9adc1;">Open-source vulnerability
    scanner</span><br>
    <a href="https://www.openvas.org/" target="_blank" style="color:#63a4ff;text-
    decoration:underline;">Project Site</a>
    </div>
    <div>
    <strong style="color:#f47174;">Nessus</strong><br>
    <span style="color:#a9adc1;">Professional
    vulnerability scanner</span><br>
    <a href="https://www.tenable.com/products/nessus" target="_blank"
    style="color:#63a4ff;text-decoration:underline;">Product
    Page</a>
    </div>
    <div>
    <strong style="color:#f47174;">OWASP ZAP</strong><br>
    <span style="color:#a9adc1;">Web application security
    scanner</span><br>
    <a href="https://zaproxy.org/" target="_blank" style="color:#63a4ff;text-
    decoration:underline;">Project Site</a>
    </div>
    </div>
    </div>
    </div>
    </section>
    <!-- Contact & Attribution -->
    <section style="background:#1a2236;border-radius:14px;padding:28px;">
    <h2 style="color:#63a4ff;margin:0 0 20px 0;">Attribution &amp;
    Acknowledgments</h2>
    <div style="color:#e2e8f0;line-height:1.6;">
    <p>VulnEdu is built using publicly available data from government
    and nonprofit organizations dedicated to improving cybersecurity. We
    acknowledge:</p>
    <ul style="margin-left:20px;color:#a9adc1;">
    <li><strong>NIST</strong> for maintaining the National
    Vulnerability Database</li>
    <li><strong>MITRE Corporation</strong> for the CVE and CWE
    programs</li>
```

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<li><strong>FIRST.org</strong> for the CVSS scoring
methodology</li>
<li><strong>OWASP</strong> for educational resources and best
practices</li>
<li>The global <strong>cybersecurity research
community</strong> for continuous improvements to vulnerability disclosure and
management</li>
</ul>
<p style="margin-top:20px;padding:16px;background:#232b45;border-
radius:6px;font-size:0.95em;">
<strong>Disclaimer:</strong> This educational tool is provided
for learning purposes. Vulnerability data should always be verified against
official sources before making security decisions. VulnEdu is not affiliated
with NIST, MITRE, or any government agency.
</p>
</div>
</section>
</div>
<script>
// Smooth scrolling for navigation links
document.querySelectorAll('a[href^="#"]').forEach(anchor => {
anchor.addEventListener('click', function (e) {
e.preventDefault();
const target = document.querySelector(this.getAttribute('href'));
if (target) {
target.scrollIntoView({
behavior: 'smooth',
block: 'start'
});
}
});
});
// Add visual feedback for external links
document.querySelectorAll('a[target="_blank"]').forEach(link => {
if (!link.innerHTML.includes('↗')) {
link.innerHTML += ' <span style="font-size:0.8em;">↗</span>';
}
});
</script>

<div style="text-align:center; margin:2.5em 0 1em 0;">
  <a href="{{ url_for('index') }}" style="color:#63a4ff; padding:0.8em 2em;
border-radius:6px; font-weight:600; text-decoration:none;">
    ← Back to Dashboard
  </a>
</div>
```

```
{% endblock %}
```

```
{% endblock %}
```