

what-is-cve.html

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{% extends "base.html" %}
{% block content %}
<div style="max-width:1400px; margin:0 auto 32px auto; padding-top:20px;">
  <!-- ===== Page Title & Intro ===== -->
  <h1 style="color:#63a4ff;">What is a CVE?</h1>
  <p style="color:#e2e8f0; font-size:1.12em;">
    <b>CVE</b> stands for <em>Common Vulnerabilities and Exposures</em>.
    It is the universal system-managed by
    <span style="color:#79a3f8;">MITRE</span> and
    <span style="color:#fca045;">NVD</span>—for giving unique names to
    publicly known cybersecurity vulnerabilities.
    <br><br>
    <b>Why do CVEs matter?</b>
    They allow security teams, researchers, and companies to discuss and fix
    the <u>same</u> problem consistently using a single ID.
    Every CVE describes a specific security flaw, explains its risk, and helps
    you learn about real-world threats and how to manage them.
  </p>

  <!-- ===== CVE Anatomy Interactive Sample ===== -->
  <h2 style="color:#cdd7ff; margin-top:36px;">CVE Anatomy: What's Inside a
  Vulnerability Record</h2>
  <div id="cve-sample-section"
    style="background:#232b45; border-radius:16px; padding:34px 28px;
margin-bottom:26px; border-left:6px solid #63a4ff;">
    <div style="display:flex; flex-wrap:wrap; gap:22px; align-items:center;">
      <span class="field-label" data-field="id" tabindex="0"
        style="background:#263159;padding:7px 15px;border-
radius:8px;color:#63a4ff;cursor:pointer;font-family:monospace;">
        ID: <b>CVE-2021-44228</b>
      </span>
      <span class="field-label" data-field="published" tabindex="0"
        style="background:#263159;padding:7px 15px;border-radius:8px;
color:#cdd7ff; cursor:pointer;">
        Published: <b>2021-12-09</b>
      </span>
      <span class="field-label" data-field="severity" tabindex="0"
        style="background:#f55855;padding:7px 15px;border-radius:8px;
color:#fff; font-weight:600; cursor:pointer;">
        Severity: Critical
      </span>
    </div>
  </div>
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        <span class="field-label" data-field="cwe" tabindex="0"
            style="background:#3b8ded;padding:7px 15px;border-radius:8px;
color:#fff; font-weight:600; cursor:pointer;">
            CWE: CWE-502
        </span>
    </div>
    <div style="margin-top:18px;">
        <span class="field-label" data-field="desc" tabindex="0"
            style="background:#263159;padding:7px 15px;border-
radius:8px;color:#e2e8f0;cursor:pointer;">
            Description: Apache Log4j2 Remote code execution via JNDI lookup
("Log4Shell")
        </span>
    </div>
    <div style="margin-top:13px; color:#a9adc1;">
        <span class="field-label" data-field="refs" tabindex="0"
            style="background:#263159;padding:5px 11px;border-
radius:8px;cursor:pointer;">
            References:
        </span>
        <a href="https://nvd.nist.gov/vuln/detail/CVE-2021-44228"
target="_blank"
            style="color:#63a4ff; margin-left:10px;">
            NVD
        </a>
        <a href="https://logging.apache.org/log4j/2.x/security.html"
target="_blank"
            style="color:#63a4ff; margin-left:18px;">
            Vendor Advisory
        </a>
    </div>
    <!-- Tooltip Box -->
    <div id="cve-sample-tooltip" style="display:none; position:absolute;
background:#101828; color:#eaf4fb; border-radius:8px; padding:13px 15px; font-
size:1.01em; min-width:210px; max-width:350px; box-shadow:0 3px 18px #0008; z-
index:200; pointer-events:none;"></div>
</div>

<!-- ===== Section: How to Read & Interpret a CVE ===== -->
<h2 style="color:#cdd7ff;">How to Read a CVE Entry & Interpret Its
Details</h2>
<div style="display:flex; flex-wrap:wrap; gap:30px; align-items:flex-
start;">
    <ul style="background:#1a2236; border-radius:13px; padding:26px 28px 16px
26px; color:#e3e8f0; font-size:1.09em; margin-bottom:22px;flex:2;">
        <li><b>ID:</b> Unique reference for searching in vulnerability databases

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and security tools.

Description: Review the summary—does it match your environment and risks?

Severity & Score: The higher (e.g., Critical), the more urgent. Check CVSS number if present.

CWE: Type or category of bug—helps guide fixes and mitigations. (E.g., Deserialization, XSS)

References: Advisories—ALWAYS consult for patches or step-by-step guidance.

Products: (If present) Specific affected software; always check compatibility before action.

<div style="flex:1; min-width:210px;">

<div style="background:#232b45; border-radius:13px; padding:18px 19px 19px 20px; color:#42d392; font-size:0.99em;">

Tips:

<ul style="font-size:0.99em; color:#a9adc1; margin-top:7px;">

Never treat all CVEs the same—focus on critical/high scores first.

Check advisory links before taking action.

Look up the CWE type (“What is a CWE?”) to prevent similar issues in your own code.

<div style="margin-top:11px;">

What is a CWE? |

CVSS Score Guide

</div>

</div>

</div>

</div>

<!-- ===== Interactive Today's CVEs ===== -->

<h2 style="color:#cdd7ff; margin-top:38px;">Today's CVEs</h2>

<div style="background:#1a2236; border-radius:14px; padding:20px 28px 24px 26px; margin-bottom:18px;">

<div style="color:#94a3b8;margin-bottom:9px;font-size:1.01em;">

Showing most recent vulnerabilities published in the last 24 hours.

SHOW ALL TODAY CVEs →

</div>

<div style="display: grid; gap: 17px;">

{% set todays_cves = [] %}

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{% for cve in latest_cves[:10] %}
{% set date_str = cve.get('Published','')[:10] %}
{% if date_str == (now.strftime('%Y-%m-%d')) %}
{% set _ = todays_cves.append(cve) %}
{% endif %}
{% endfor %}

{% if todays_cves %}
{% for cve in todays_cves[:5] %}
    <div style="background:#263159; border-radius:12px; padding:18px 19px
14px 19px; border-left:4px solid {% if cve.get('Severity') == 'CRITICAL'
%}#f47174{% else %}#fca311{% endif %};">
        <div style="display:flex; justify-content:space-between; align-
items:flex-start; margin-bottom:10px;">
            <div style="flex:1;">
                <div style="display:flex; gap:11px; align-items:center;">
                    <a href="{{ url_for('cve_detail', cve_id=cve.get('ID')) }}"
style="color:#63a4ff; font-weight:700; font-size:1.1em; text-
decoration:none;">
                        {{ cve.get('ID','N/A') }}
                    </a>
                    <span style="background: {% if cve.get('Severity')== 'CRITICAL'
%}#f47174{% elif cve.get('Severity')== 'HIGH' %}#fca311{% elif
cve.get('Severity')== 'MEDIUM' %}#3498db{% else %}#42d392{% endif %};
color:white; padding:4px 12px; border-radius:16px; font-size:0.83em; font-
weight:600;">
                        {{ cve.get('Severity','UNKNOWN') }}
                    </span>
                    {% if cve.get('CWE') %}
                        <span style="margin-left:10px; background:#212d46;
color:#63a4ff; padding:1px 9px; border-radius:11px; font-size:0.95em;">{{
cve.get('CWE') }}</span>
                    {% endif %}
                </div>
                <div style="color:#e2e8f0; line-height:1.44; margin-top:7px;
font-size:0.97em;">
                    {{ cve.get('Description','No description available')[:170] }}
                {% if cve.get('Description','')|length > 170 %}...{% endif %}
            </div>
            <div style="min-width:105px; text-align:right; color:#a9adc1;">
                <div>{{ cve.get('Published')[:10] }}</div>
            </div>
        </div>
    </div>
{% endfor %}

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    {% else %}
        <div style="text-align:center; color:#94a3b8; padding:26px;font-
size:1.08em;">
            <div style="font-size:1.7rem;margin-bottom:8px;">🔍</div>
            No new CVEs detected today.
        </div>
    {% endif %}
</div>
</div>

<!-- ===== Timeline of Major CVEs ===== -->
<h2 style="color:#cdd7ff; margin-top:34px;">Timeline of Major CVEs</h2>
<div style="background:#232b45;border-radius:10px;padding:24px 18px 20px
18px; margin-bottom:18px;">
    <table style="width:100%; color:#e3e8f0; font-size:1.05em; border-
collapse:collapse;">
        <thead>
            <tr style="background:#263159;">
                <th style="padding:10px 9px; text-align:left;">Year</th>
                <th style="padding:10px 9px; text-align:left;">CVE ID</th>
                <th style="padding:10px 9px; text-align:left;">Nickname</th>
                <th style="padding:10px 9px; text-align:left;">Impact & Legacy</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td style="padding:9px 7px;">2014</td>
                <td style="padding:9px 7px;"><a style="color:#63a4ff;"
href="https://nvd.nist.gov/vuln/detail/CVE-2014-0160" target="_blank">CVE-
2014-0160</a></td>
                <td style="padding:9px 7px;">Heartbleed</td>
                <td style="padding:9px 7px;">SSL bug exposed private keys, triggered
global emergency patching</td>
            </tr>
            <tr>
                <td style="padding:9px 7px;">2014</td>
                <td style="padding:9px 7px;"><a style="color:#63a4ff;"
href="https://nvd.nist.gov/vuln/detail/CVE-2014-6271" target="_blank">CVE-
2014-6271</a></td>
                <td style="padding:9px 7px;">Shellshock</td>
                <td style="padding:9px 7px;">Bash shell flaw affected millions of
Linux servers</td>
            </tr>
            <tr>
                <td style="padding:9px 7px;">2017</td>
                <td style="padding:9px 7px;"><a style="color:#63a4ff;"

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href="https://nvd.nist.gov/vuln/detail/CVE-2017-0144" target="_blank">CVE-
2017-0144</a></td>
    <td style="padding:9px 7px;">EternalBlue</td>
    <td style="padding:9px 7px;">Used in WannaCry ransomware; showed the
danger of wormable network bugs</td>
</tr>
<tr>
    <td style="padding:9px 7px;">2017</td>
    <td style="padding:9px 7px;"><a style="color:#63a4ff;"
href="https://nvd.nist.gov/vuln/detail/CVE-2017-5638" target="_blank">CVE-
2017-5638</a></td>
    <td style="padding:9px 7px;">Apache Struts</td>
    <td style="padding:9px 7px;">Enabled the Equifax breach, crucial
lessons for enterprise patching</td>
</tr>
<tr>
    <td style="padding:9px 7px;">2021</td>
    <td style="padding:9px 7px;"><a style="color:#63a4ff;"
href="https://nvd.nist.gov/vuln/detail/CVE-2021-44228" target="_blank">CVE-
2021-44228</a></td>
    <td style="padding:9px 7px;">Log4Shell</td>
    <td style="padding:9px 7px;">Critical bug in Log4j2 affected cloud,
apps, millions of devices worldwide</td>
</tr>
<tr>
    <td style="padding:9px 7px;">2022</td>
    <td style="padding:9px 7px;"><a style="color:#63a4ff;"
href="https://nvd.nist.gov/vuln/detail/CVE-2022-22965" target="_blank">CVE-
2022-22965</a></td>
    <td style="padding:9px 7px;">Spring4Shell</td>
    <td style="padding:9px 7px;">New Java bug affected popular Spring
framework (recent ecosystem risk)</td>
</tr>
</tbody>
</table>
<div style="margin-top:14px; color:#a9adc1; font-size:0.97em;">
    <b>Why These Matter:</b>
    Each event reshaped industry patching, compliance, and risk management.
    Major spikes in awareness and new best practices followed these
discoveries.
</div>
</div>
</div>
<!-- ===== Interactive Highlight/Tooltip JS ===== -->
<script>

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const cveSampleTooltips = {
  'id': { title: "CVE ID", text: "A unique vulnerability identifier. Used to
track and search. Format: CVE-YYYY-NNNNN." },
  'published': { title: "Published Date", text: "Date the vulnerability was
publicly announced. Crucial for understanding risk exposure windows." },
  'severity': { title: "Severity", text: "Shows risk level (Critical, High,
Medium, Low)—often based on the CVSS score. Prioritize higher severities." },
  'cwe': { title: "CWE", text: "Specifies the underlying type of coding/design
flaw. Links to common patterns for prevention (e.g. Deserialization, XSS)." },
  'desc': { title: "Description", text: "A summary of what the vulnerability
is and how it can be exploited. Always read to see if it applies to your
environment." },
  'refs': { title: "References", text: "Links to authoritative advisories,
patches, vendor updates, and analysis. The best source of detailed remediation
steps." }
};

(function() {
  const section = document.getElementById('cve-sample-section');
  const tooltip = document.getElementById('cve-sample-tooltip');
  let active = null;
  function showTip(label, event) {
    const field = label.dataset.field;
    const data = cveSampleTooltips[field];
    if (!data) return;
    tooltip.innerHTML = "<b style='color:#63a4ff;'>" + data.title + "</b><br>"
+ data.text;
    tooltip.style.display = "block";
    const rect = label.getBoundingClientRect();
    tooltip.style.position = 'fixed';
    let left = rect.left;
    let top = rect.bottom + 8;
    if((left + tooltip.offsetWidth + 10) > window.innerWidth){
      left = window.innerWidth - tooltip.offsetWidth - 22;
    }
    tooltip.style.left = left + "px";
    tooltip.style.top = top + "px";
    active = label;
  }
  function hideTip(ev) {
    tooltip.style.display = "none";
    active = null;
  }
  const labels = section.querySelectorAll('.field-label');
  labels.forEach(function(label) {
    label.addEventListener('mouseover', function(e) { showTip(label, e); });
  });

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    label.addEventListener('focus', function(e){ showTip(label, e); });
    label.addEventListener('mouseleave', hideTip);
    label.addEventListener('blur', hideTip);
    label.setAttribute('tabindex', '0');
  });
  document.addEventListener('mousedown', function(e){ if(active &&
!active.contains(e.target)) hideTip(); });
  window.addEventListener('scroll', hideTip, {passive:true});
  window.addEventListener('resize', hideTip);
  document.addEventListener('keydown', function(e){ if(e.key === 'Escape')
hideTip(); });
})();
</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 %}

```