



# RISK LESSON

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# RISK

## NATIONAL VULNERABILITY DATABASE ACTIVITY

Instructions: Go to the National Vulnerability Database at <https://nvd.nist.gov/>. Once there, explore the site in order to answer these key questions.

### KEY QUESTIONS

Answer the following questions:

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#### TRUE OR FALSE

1. True or False (circle one): The NVD includes databases of security checklist references, security related software flaws, misconfigurations, product names, and impact metrics.

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#### MULTIPLE CHOICE

2. The NVD is provided and sponsored by two of these three organizations. Which one does NOT provide/sponsor the NVD?
  - a) NIST Computer Security Division, Information Technology Laboratory
  - b) Department of Homeland Security's National Cyber Security Division
  - c) National Security Agency
3. CVSS stands for the Common \_\_\_\_\_ Scoring System.
  - a) Valuation
  - b) Verification
  - c) Vulnerability
4. Select which of the following statements is False and write in the correct answer(s).
  - a) The base CVSS score include impact, exploitability and temporal components.
  - b) The base score goes from 0 – 100.
  - c) The exploitability metric includes: attack vector, attack complexity, privileges requires, user interaction, and scope.
  - d) The impact metric includes: confidentiality, integrity, availability, and authentication.



The correct answer(s):

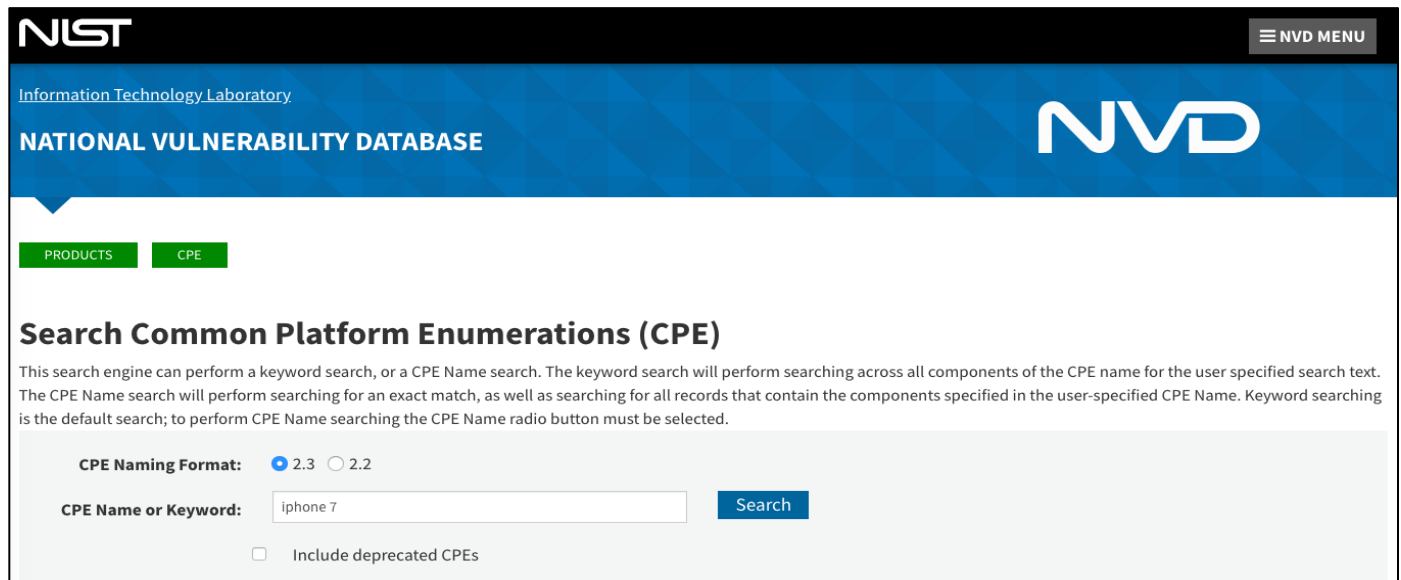
5. Which statement describes the purpose of the Common Platform Enumeration (CPE) dictionary?

- a) The CPE is a subscore derived from the base CVSS score.
- b) The CPE provides an agreed upon list of technology to uniquely identify vulnerable products.
- c) The CPE is a list of vendors participating in the NVD.
- d) The CPE provides a common language for explaining the cause of vulnerabilities.

## SEARCH PRODUCTS

Now go to the search engine , select Products – CPE, put in the name of one of the devices that you listed on the Asset Classification Activity.

For example, type in “iPhone 7” as the product as shown in the figure below.



The screenshot shows the NIST National Vulnerability Database (NVD) search interface. At the top, the NIST logo and "Information Technology Laboratory" are visible. Below that, the text "NATIONAL VULNERABILITY DATABASE" and "NVD" are displayed. There are two tabs: "PRODUCTS" (selected) and "CPE". The main heading is "Search Common Platform Enumerations (CPE)". Below this, a paragraph explains the search engine capabilities. The search form includes a "CPE Naming Format" section with radio buttons for "2.3" (selected) and "2.2". The "CPE Name or Keyword" field contains the text "iphone 7". A "Search" button is located to the right of the input field. Below the input field, there is a checkbox labeled "Include deprecated CPEs" which is currently unchecked.



Here is a screenshot of the results when you type in "iPhone 7" as the product.

PRODUCTS CPE SEARCH

## Search Results [\(Refine Search\)](#)

**Search Parameters:**

- Keyword: iphone 7
- CPE Status: FINAL
- CPE Naming Format: 2.3

There are **99** matching records.  
Displaying matches **1** through **20**.

Vendor	Product	Version
<a href="#">cpe:2.3:o:apple:iphone_os:7.0:*:*:*:*:*</a> apple	<a href="#">View CVEs</a> iphone_os	7.0
<a href="#">cpe:2.3:o:apple:iphone_os:7.0.1:*:*:*:*:*</a> apple	<a href="#">View CVEs</a> iphone_os	7.0.1
<a href="#">cpe:2.3:o:apple:iphone_os:7.0.2:*:*:*:*:*</a> apple	<a href="#">View CVEs</a> iphone_os	7.0.2
<a href="#">cpe:2.3:o:apple:iphone_os:7.0.3:*:*:*:*:*</a>	<a href="#">View CVEs</a>	

Scroll through the vulnerabilities and read about them. Select one and report the following things about it here:

CVE Number			
Overview:			
CVSS Severity		CVSS Impact	



CVSS Base Score		CVSS Exploitability Score	
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Now circle each of the follow ratings for exploitability and impact:

Base Score Metrics	
<b>Exploitability Metrics</b>	<b>Impact Metrics</b>
Attack Vector (AV) Network    Adjacent Network    Local Physical	Confidentiality Impact (C) None    Low    High
Attack Complexity (AC) Low    High	Integrity Impact (I) None    Low    High
Privileges Required (PR) None    Low    High	Availability Impact (A) None    Low    High
User Interaction (UI) None    Required	
Scope (S) Unchanged    Changed	

Now go to the "[Search Vulnerability Database](#)", select Vulnerabilities – CVE, and research CVE-2019-11510

<b>CVE Number</b>	CVE-2019-11510		
Analysis Description:			
CVSS Severity Score		CVSS Impact Subscore	



CVE Number	CVE-2019-11510		
CVSS Base Score		CVSS Exploitability Subscore	



Now circle each of the follow ratings for exploitability and impact:

<b>Base Score Metrics</b>		
<b>Exploitability Metrics</b>		<b>Impact Metrics</b>
Attack Vector (AV) Network    Adjacent Network    Local Physical		Confidentiality Impact (C) None    Low    High
Attack Complexity (AC) Low    High		Integrity Impact (I) None    Low    High
Privileges Required (PR) None    Low    High		Availability Impact (A) None    Low    High
User Interaction (UI) None    Required		
Scope (S) Unchanged    Changed		

