

In this assignment, you will complete the implementation of a Medical Device Vulnerability Scoring webpage. The purpose of this webpage is to return a score that numerically quantifies how vulnerable a specific vulnerability is to a particular attack. The user can select system properties from a group of predetermined options, where each option is a styled radio button. Once options are selected for all possible properties, the webpage will display the vulnerability score (and hide the warning label).

1. Download the ZIP file below containing HTML, CSS, and JavaScript files.
2. Implement a function in calculator.js called `updateScore()` that verifies one button from each property is selected.
3. Using JavaScript, add a `click` or `change` event listener to each radio button. Do not add the event listener to the button label. Notice that the radio buttons are hidden using CSS.
4. Once one button from each property is selected, the webpage should:
 - Hide the warning label by setting the display style of the `<div>` with ID `warning` to `none`. Note: both `none` and `hidden` have similar visual effects, however `none` doesn't occupy any space, while `hidden` does occupy space, affecting the layout).
 - Compute the vulnerability score.
 - The score should be updated and displayed inside the `<div>` with ID `score`.
5. The score must have a minimum of 0 and a maximum of 10.
6. The final score must be **rounded up** to the tenths decimal place, and displayed with one decimal place. Ex: If the final score is 7.311456, the score should be displayed as 7.4.
7. Once the score is being displayed, updating a property will automatically update the vulnerability score.
8. The score is computed as:

○ $Score_{Final} = (Scope_{status}) * ((3.326258289 * Score_{Base}) + (1.1 * Score_{Exploitability}))$, where the $Scope_{Status}$, $Score_{Base}$, and $Score_{Exploitability}$ are calculated as:

▪ If $Score_{Base}$ is 0, then $Score_{Final}$ should be 0.

○ $Scope_{Status}(Selection) =$

Scope Status	Value
Unchanged	1.0
Changed	1.08

▪ $Score_{Base} = Base_{Confidentiality} + Base_{Integrity} + Base_{Availability}$, where:

- $Base_{Confidentiality}(Level_{Sensitivity}, Level_{Confidentiality}) =$

- Sensitivity corresponds to rows, and Confidentiality corresponds to columns.

Sensitivity / Confidentiality	None	Low	High
None	0.00	0.22	0.56
Low	0.00	0.65	0.75
High	0.00	0.85	0.95

- $Base_{Integrity}(Level_{HealthImpact}, Level_{Integrity}) =$

- Health Impact corresponds to rows, and Integrity corresponds to columns.

Health Impact / Integrity	None	Low	High
None	0.00	0.22	0.56
Low	0.55	0.60	0.75
High	0.85	0.90	0.95

- $Base_{Availability}(Level_{HealthImpact}, Level_{Availability}) =$

- Health Impact corresponds to rows, and Availability corresponds to columns.

Health Impact / Availability	None	Low	High
None	0.00	0.22	0.56
Low	0.55	0.60	0.65
High	0.85	0.90	0.95

- $Score_{Exploitability} = Attack_{Vector} * Attack_{Complexity} * Privileged_{Required} * User_{Interaction}$, where:

- $Attack_{Vector}(Selection) =$

Attack Vector	Value
Network	0.85
Adjacent Network	0.62
Local	0.55
Physical	0.20

- $Attack_{Complexity}(Selection) =$

Attack Complexity	Value
Low	0.77
High	0.44

- $Privilege_{Required}(Selection) =$

Privilege Required	Value
None	0.85
Low	0.62
High	0.27

- $User_{Interaction}(Selection) =$

User Interaction	Value
None	0.85
Required	0.62