CSC 4

John Ryan Zelling Analyst

Jan 2017

Contents

CSC 4.0

[1] "Critical Security Control #4: Continuous Vulnerability Assessment and Remediation"

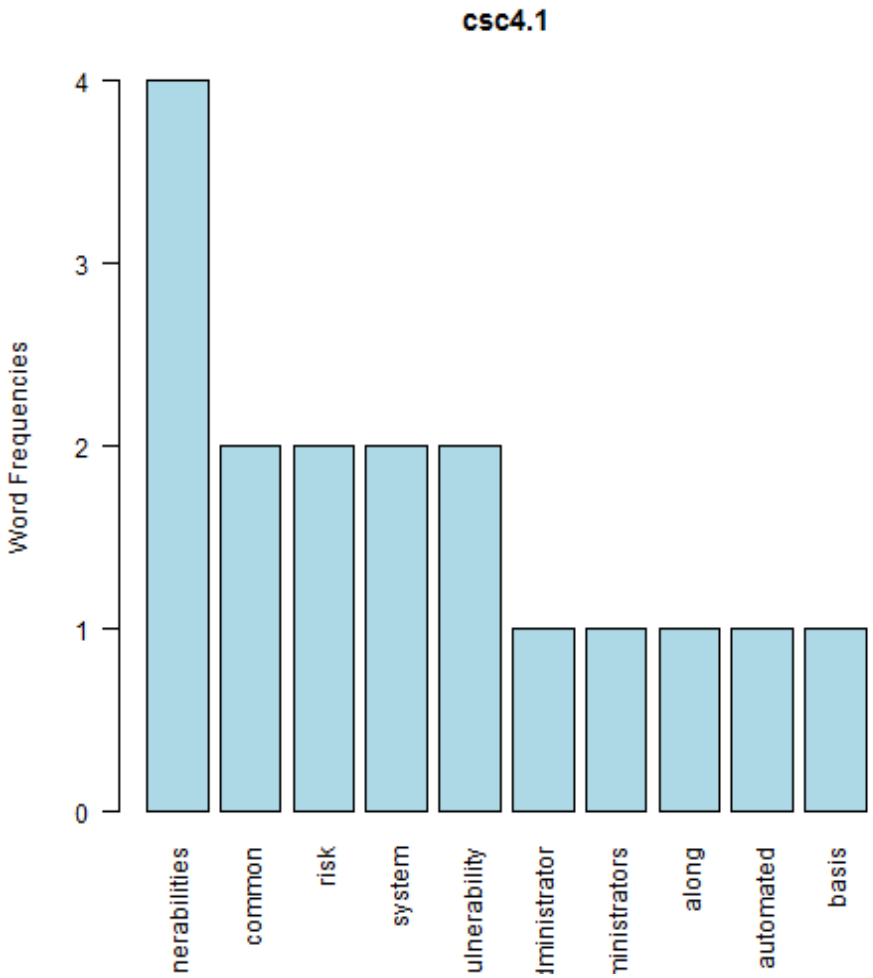
[1]

[1] [1] "To further clarify the Creative Commons license related to the CIS Critical Security Controls content, you are authorized to copy and redistribute the content as a framework for use by you, within your organization and outside of your organization for non-commercial purposes only, provided that (i) appropriate credit is given to CIS, and (ii) a link to the license is provided. Â Additionally, if you remix, transform or build upon the CIS Critical Security Controls, you may not distribute the modified materials. Users of the CIS Critical Security Controls framework are also required to refer to (http://www.cisecurity.org/critical-controls.cfm) when referring to the CIS Critical Security ControlsÂ in order to ensure that users are employing the most up to date guidance. Â Commercial use of the CIS Critical Security Controls is subject to the prior approval of The Center for Internet Security."

CSC 4.1

[1] “vulnerabilities + common”

null device 1



null device 1 [1] "Run automated vulnerability scanning tools against all systems on the network on a weekly or more frequent basis and deliver prioritized lists of the most critical vulnerabilities to each responsible system administrator along with risk scores that compare the effectiveness of system administrators and departments in reducing risk. Use a SCAP-validated vulnerability scanner that looks for both code-based vulnerabilities (such as those described by Common Vulnerabilities and Exposures entries) and configuration-based vulnerabilities (as enumerated by the Common Configuration Enumeration Project)."

[2]

[2] https://nvd.nist.gov/SCAP-Validated-Tools/

3

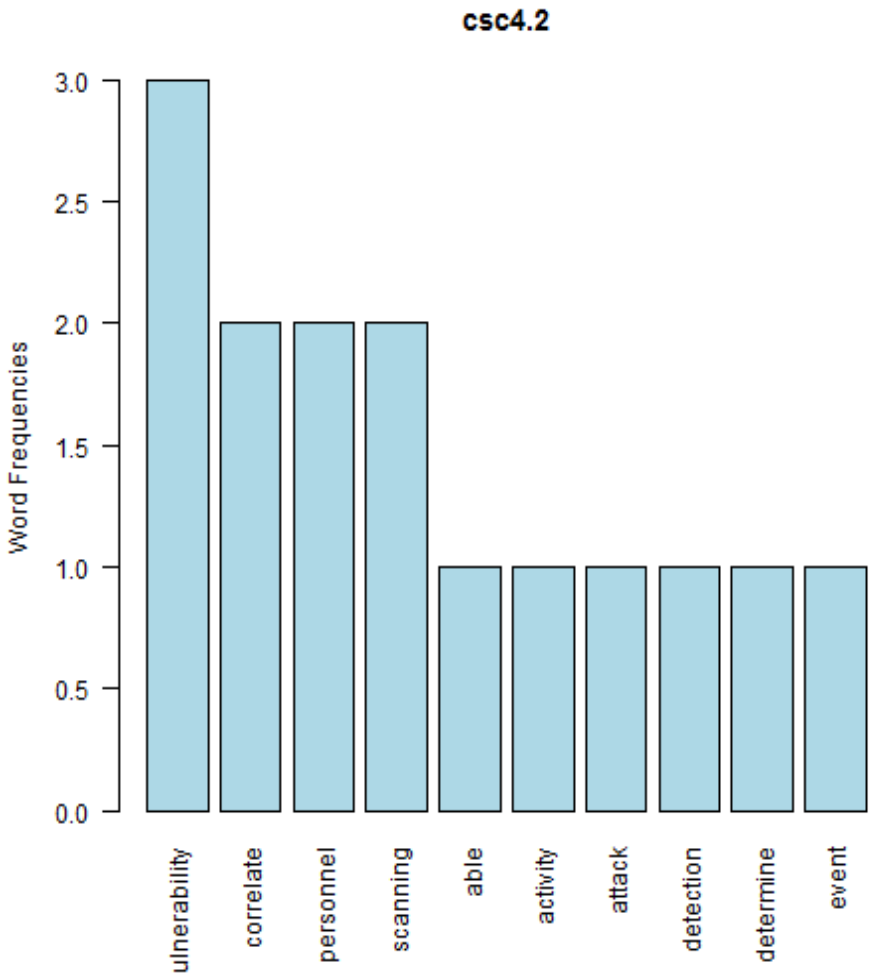
4

[3]http://nvd.nist.gov/cce/index.cfm
[4]https://cve.mitre.org/

CSC 4.2

[1] “vulnerability + correlate”

null device 1

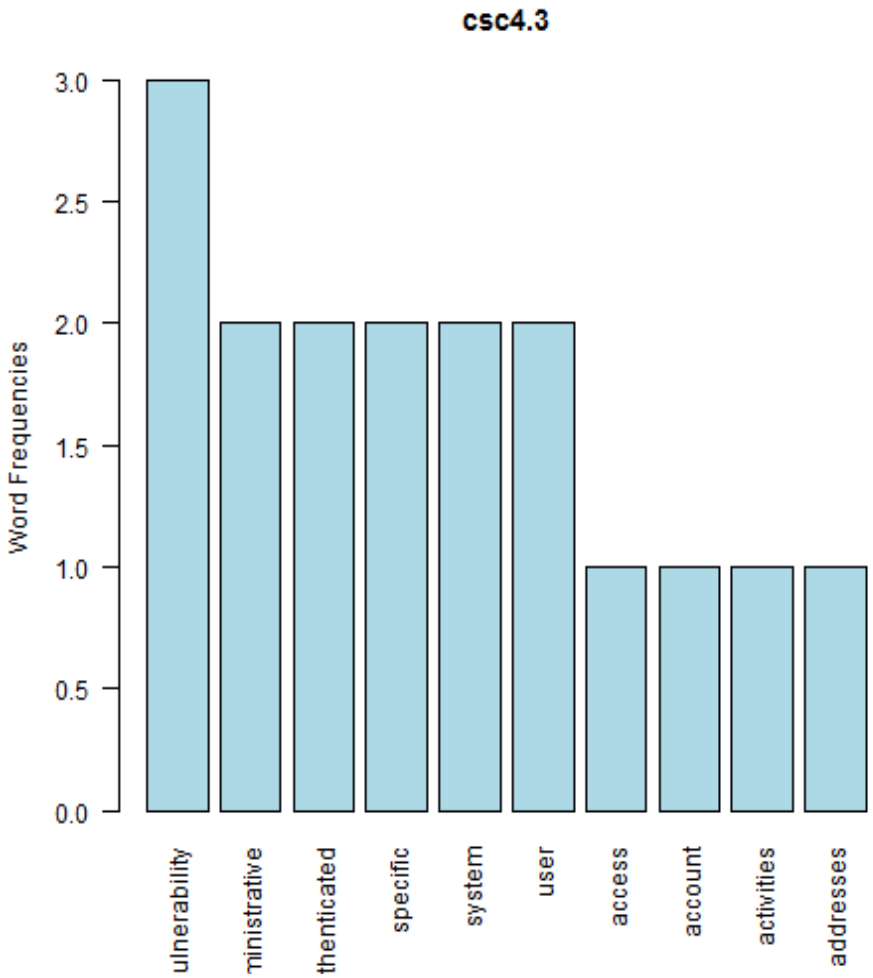


null device 1 [1] “Correlate event logs with information from vulnerability scans to fulfill two goals. First, personnel should verify that the activity of the regular vulnerability scanning tools is itself logged. Second, personnel should be able to correlate attack detection events with prior vulnerability scanning results to determine whether the given exploit was used against a target known to be vulnerable.”

CSC 4.3

[1] “vulnerability + administrative”

null device 1

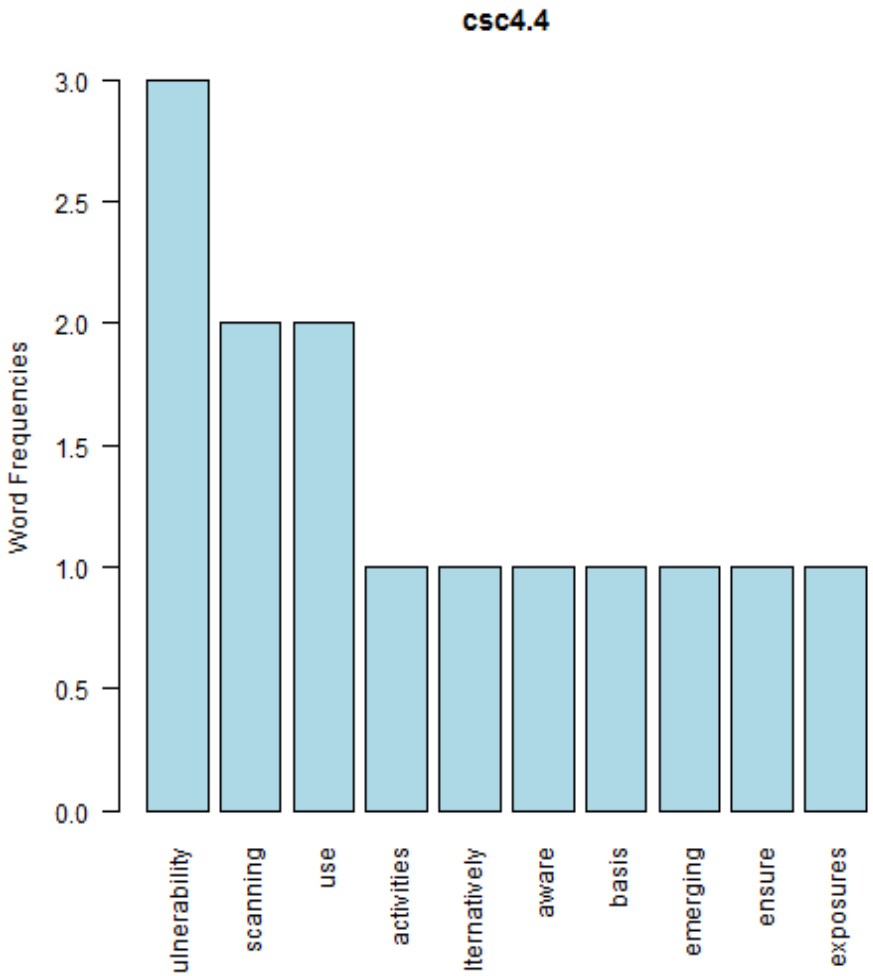


null device 1 [1] “Perform vulnerability scanning in authenticated mode either with agents running locally on each end system to analyze the security configuration or with remote scanners that are given administrative rights on the system being tested. Use a dedicated account for authenticated vulnerability scans, which should not be used for any other administrative activities and should be tied to specific machines at specific IP addresses. Ensure that only authorized employees have access to the vulnerability management user interface and that roles are applied to each user.”

CSC 4.4

[1] “vulnerability + scanning”

null device 1

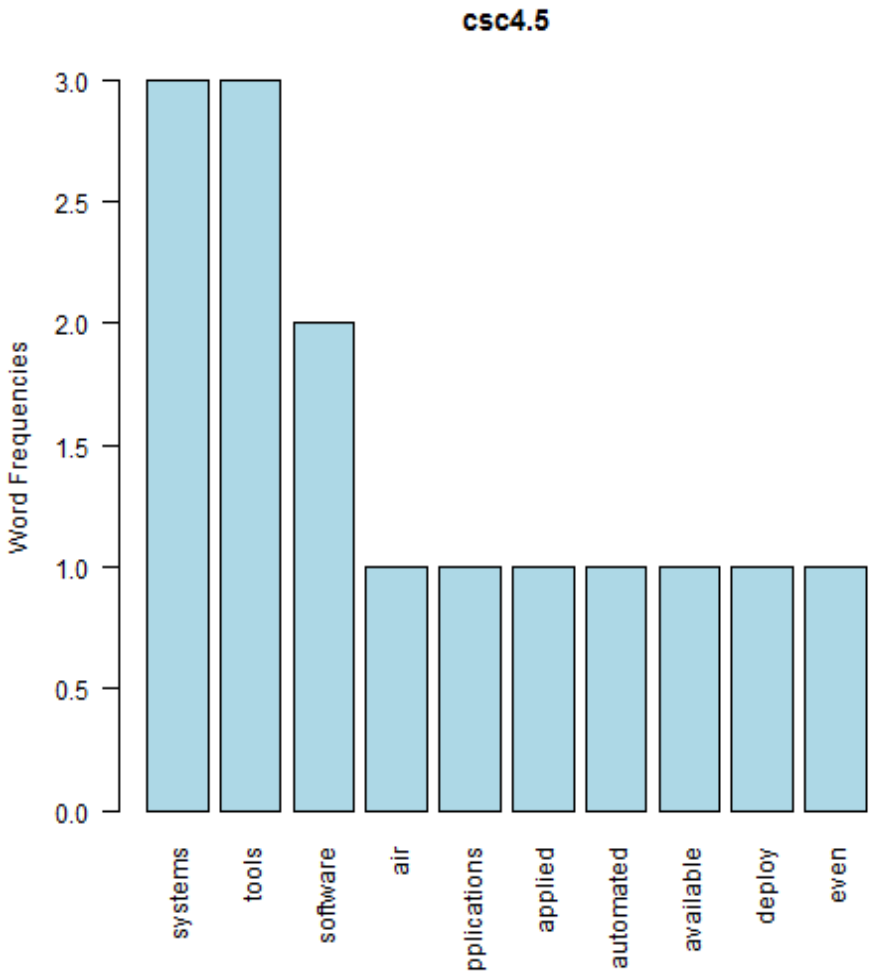


null device 1 [1] “Subscribe to vulnerability intelligence services in order to stay aware of emerging exposures, and use the information gained from this subscription to update the organizationâ s vulnerability scanning activities on at least a monthly basis. Alternatively, ensure that the vulnerability scanning tools you use are regularly updated with all relevant important security vulnerabilities.”

CSC 4.5

[1] “systems + tools”

null device 1

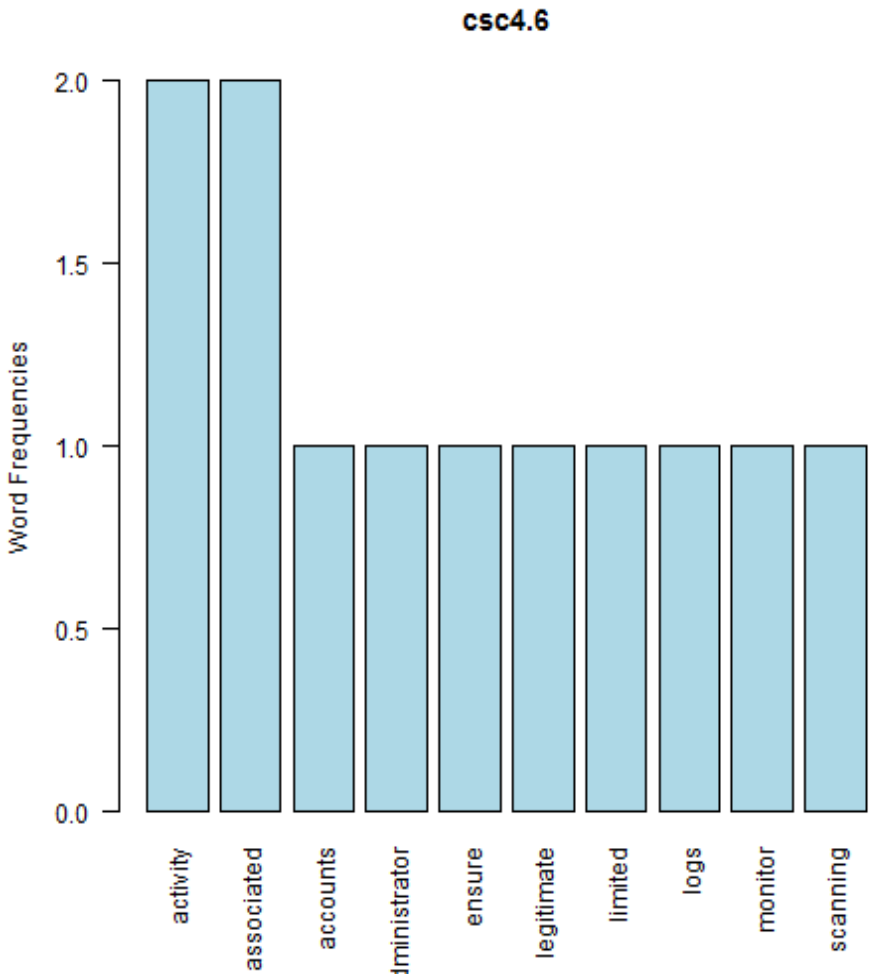


null device 1 [1] “Deploy automated patch management tools and software update tools for operating system and software/applications on all systems for which such tools are available and safe. Patches should be applied to all systems, even systems that are properly air gapped.”

CSC 4.6

[1] “activity + associated”

null device 1

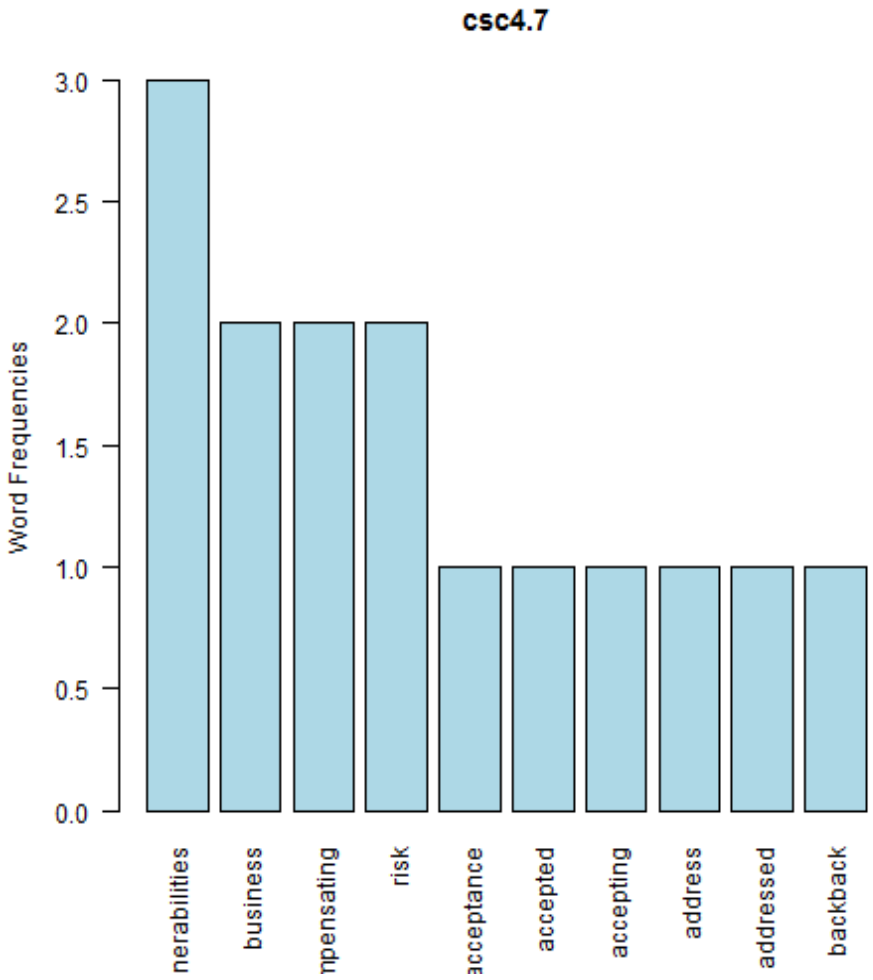


null device 1 [1] “Monitor logs associated with any scanning activity and associated administrator accounts to ensure that this activity is limited to the timeframes of legitimate scans.”

CSC 4.7

[1] “vulnerabilities + business”

null device 1

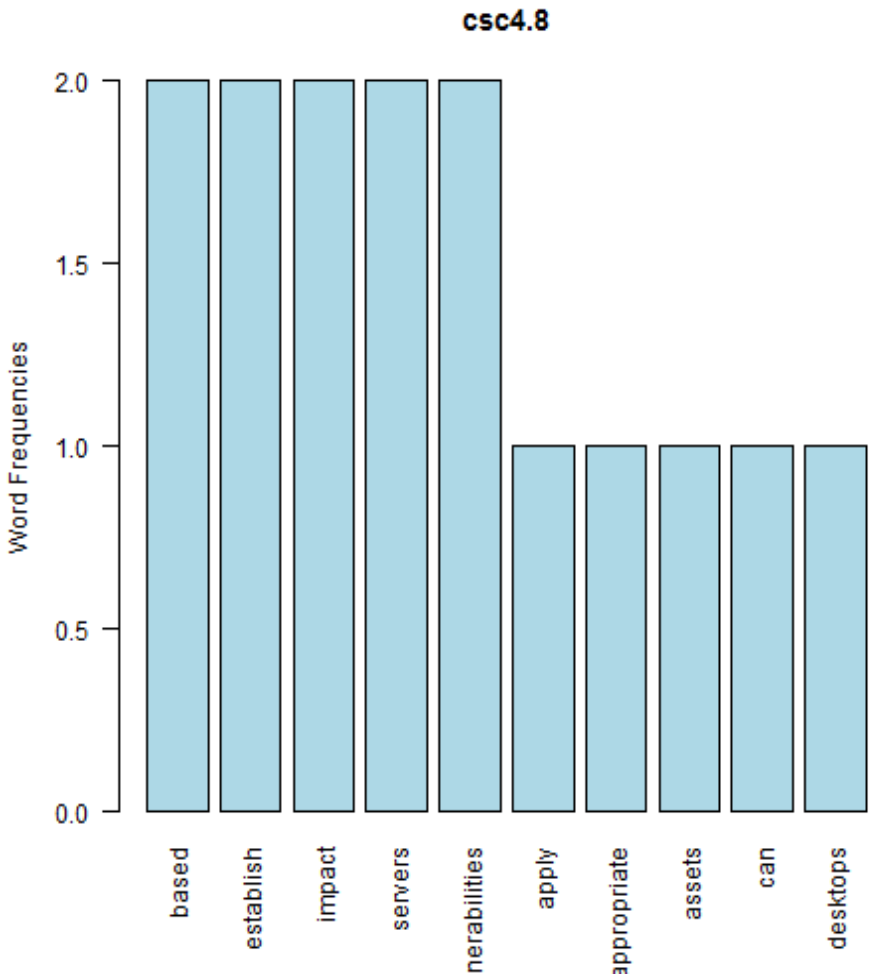


null device 1 [1] “Compare the results from back-to-back vulnerability scans to verify that vulnerabilities were addressed either by patching, implementing a compensating control, or documenting and accepting a reasonable business risk. Such acceptance of business risks for existing vulnerabilities should be periodically reviewed to determine if newer compensating controls or subsequent patches can address vulnerabilities that were previously accepted, or if conditions have changed, increasing the risk.”

CSC 4.8

[1] “based + establish”

null device 1



null device 1 [1] “Establish a process to risk-rate vulnerabilities based on the exploitability and potential impact of the vulnerability, and segmented by appropriate groups of assets (example, DMZ servers, internal network servers, desktops, laptops). Apply patches for the riskiest vulnerabilities first. A phased rollout can be used to minimize the impact to the organization. Establish expected patching timelines based on the risk rating level.”