
Access Control

CIS-3240 Homework #4

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This homework covers topics in access control.

1. What is the "access control matrix?"
2. What is the difference between "authentication" and "authorization?"
3. Summarize the difference between discretionary access controls and mandatory access controls. Is one more secure than the other? Does it make sense to use both together?
4. In the Bell-LaPadula model of multilayer security, the *-property seems counterintuitive. Explain why it is important.
5. You are a system administrator at Pet Heaven, a company that specializes in creating vacation packages for pets. A group of developers is starting a new project called "Pets in Space." They need a folder, `/usr/local/petspace`, to hold their work. To this end you create a group "petspace" on the central (Linux) system, add all the developers to this group, and create the folder above.

What commands would you use to give the petspace group full access to this folder *and* all files and subfolders created in the folder? HINT: Set a default ACL on the folder.

Later the manager of the project, user jjones, asks to have read access to all of the work done for the project. She is not a member of the petspace group, nor does she need to be. What command(s) would you use to modify the ACLs appropriately?