launch_code

John Woolbright, Technical Curriculum Developer

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Bash: File Permissions

Linux File Permissions

All files have permissions for different types of classifications

The classifications are Owners, Groups, and Others

Available Permissions

Read, Write, Execute, None

Read: User, Group, and Other can Read the file

Write: User, Group, and Other can Write to the file

Execute: User, Group, and Other can execute the file

None: None of the above permissions

Possible Permission Combinations

Read only, Write Only, Execute only

Read and Write

Read and Execute

Write and Execute

Read, Write, and Execute

None

View Permissions

You can use the -l option with the ls command for a long listing format of files within a given directory

You can expand even further and provide the -a option in addition to -l for all files (including hidden)

Changing File Permissions

The chmod command allows you to change file permissions for a file or directory

chmod [OPTION] [file-name]

Read is represented by the numeric value 4

Write is represented by the numeric value 2

Execute is represented by the numeric value 1

None is represented by the numberic value 0

chmod Command Example

chmod 444 example-file-name

The above command would provide the Owner, Group, and all Other users with access to the "example-file-name" file with Read only permissions

Providing Multiple Permissions

You are able to use the numeric values in addition to one another to provide multiple permissions for any given Owner, Group, and Other users

Read + Execute = 5

Read + Write = 6

Read + Write + Execute = 7

Changing File Ownership

The **chown** command allows you to change file ownership for a file or directory

chown [OPTION] [OWNER][:[GROUP]] [file-name]

Changing User Ownership

chown new-user example-file

The above command would change the ownership of the example-file from its current owner to "new-user"

Changing Group Ownership

chown :new-group example-file

The above command would change the ownership of the example-file from its current group to "new-group"

Changing User and Group Ownership

chown new-user:new-group example-file

The above command would change the ownership of the example-file from its current owner to "new-user" and group to "new-group"

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