# BASH Lab 2 Log Rotation KEY

A common task is moving logs so the files don't get too big, but ensuring the information is still available for a certain amount of time. There is an example of this in the first BASH scripting module on slide 5. Once a day or week, depending on how fast the log files grow, a script moves the file log2 to log3, log1 to log2, log to log1, and creates a new file log. Put this in a script called **rotate-logs.sh**

mv log2 log3

mv log1 log2

mv log log1

touch log

We need to create the files that the script will move. To do this, we'll make a different script, **start-logs.sh**, which has this content:

echo "this was in log " > log

echo "this was in log1 " > log1

echo "this was in log2 " > log2

echo "this was in log3 " > log3

When you run rotate-logs.sh, you should be able to cat the files log, log1, etc, and see that they have been moved.

For more practice, modify rotate-logs.sh so that it prints out the contents of the files before it moves them, and again after. Your output should look like this:

[john@localhost ~]$ ./start-logs.sh

[john@localhost ~]$ ./rotate-logs.sh

BEFORE

log contents: this was in log

log1 contents: this was in log1

log2 contents: this was in log2

log3 contents: this was in log3

AFTER

log contents:

log1 contents: this was in log

log2 contents: this was in log1

log3 contents: this was in log2

[john@localhost ~]$ ./rotate-logs.sh

BEFORE

log contents:

log1 contents: this was in log

log2 contents: this was in log1

log3 contents: this was in log2

AFTER

log contents:

log1 contents:

log2 contents: this was in log

log3 contents: this was in log1

[john@localhost ~]$

#!/bin/sh

echo "BEFORE"

echo "log contents: `cat log`"

echo "log1 contents: `cat log1`"

echo "log2 contents: `cat log2`"

echo "log3 contents: `cat log3`"

mv log2 log3

mv log1 log2

mv log log1

touch log

echo "AFTER"

echo "log contents: `cat log`"

echo "log1 contents: `cat log1`"

echo "log2 contents: `cat log2`"

echo "log3 contents: `cat log3`"

One last part... Instead of making a new, empty file called log when we rotate, let's put the time in the first line of the new log file. Use the command, date. It can output date and time in many formats. A simple way to get a time format is to use:

date +"%T"

Now, your output should look like this:

[john@localhost ~]$ ./start-logs.sh

[john@localhost ~]$ ./rotate-logs.sh

BEFORE

log contents: this was in log

log1 contents: this was in log1

log2 contents: this was in log2

log3 contents: this was in log3

AFTER

log contents: 03:52:16

log1 contents: this was in log

log2 contents: this was in log1

log3 contents: this was in log2

[john@localhost ~]$ ./rotate-logs.sh

BEFORE

log contents: 03:52:16

log1 contents: this was in log

log2 contents: this was in log1

log3 contents: this was in log2

AFTER

log contents: 03:52:22

log1 contents: 03:52:16

log2 contents: this was in log

log3 contents: this was in log1

[john@localhost ~]$

#!/bin/sh

echo "BEFORE"

echo "log contents: `cat log`"

echo "log1 contents: `cat log1`"

echo "log2 contents: `cat log2`"

echo "log3 contents: `cat log3`"

mv log2 log3

mv log1 log2

mv log log1

echo `date +"%T"` > log

echo "AFTER"

echo "log contents: `cat log`"

echo "log1 contents: `cat log1`"

echo "log2 contents: `cat log2`"

echo "log3 contents: `cat log3`"

# Hand in

Hand in your final rotate-logs.sh script.