## **Week 5 Homework Submission File: Archiving and Logging Data**

Please edit this file by adding the solution commands on the line below the prompt.

Save and submit the completed file for your homework submission.

### **Step 1: Create, Extract, Compress, and Manage tar Backup Archives**

1. Command to **extract** the TarDocs.tar archive to the current directory: tar xvvf TarDocs.tar
2. Command to **create** the Javaless\_Doc.tar archive from the TarDocs/ directory, while excluding the TarDocs/Documents/Java directory: tar cvvf Javaless\_Docs.tar --exclude TarDocs/Documents/Java TarDocs
3. Command to ensure Java/ is not in the new Javaless\_Docs.tar archive: tvvf Javaless\_Docs.tar | grep Java

#### **Critical Analysis Question**

* Why wouldn't you use the options -x and -c at the same with tar? Because the X is to dump and execute the file and the -c is to create a tar.

### **Step 2: Create, Manage, and Automate Cron Jobs**

1. Cron job for backing up the /var/log/auth.log file: crontab -e tar 0 6 \* \* 3 tar czvf auth\_backup.tgz /var/log/auth.log auth\_backup.tgz

### **Step 3: Write Basic Bash Scripts**

1. Brace expansion command to create the four subdirectories:

Paste your system.sh script edits below:  
  
 #!/bin/bash

1. mkdir ~/backups/{freemem,diskuse,openlist,freedisk}
2. Command to make the system.sh script executable: chmod +x system.sh

### **Step 4: Perform Various Log Filtering Techniques**

1. Command to return journalctl messages with priorities from emergency to error :j ournalctl -p err -b
2. Command to check the disk usage of the system journal unit since the most recent boot:journalctl --disk-usage
3. Comand to remove all archived journal files except the most recent two:sudo journalctl --vacuum-files=2

### **Step 5. Create Priority-Based Log Files**

1. Command to record all mail log messages, except for debug, to /var/log/mail.log:  
   * Add the edits made to the configuration file below:
2. [Your solution edits here]
3. mail.info /var/log/mail.log
4. mail.warn /var/log/mail.log
5. mail.err /var/log/mail.log
6. mail.crit /var/log/mail.log
7. mail.alert /var/log/mail.log
8. mail.emerge /var/log/mail.log

### **Step 6. Manage Log File Sizes**

1. Run sudo nano /etc/logrotate.conf to edit the logrotate configuration file.  
     
    Configure a log rotation scheme that backs up authentication messages to the /var/log/auth.log.  
   * Add your config file edits below:

/var/log/auth.log {

missingok

weekly

rotate 7

notifempty

delaycompress

}

# s