

90DaysOfDevOps



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Task: Advanced Linux Shell Scripting for DevOps Engineers with User management

If you noticed that there are total 90 sub directories in the directory '2023' of this repository. What did you think, how did I create 90 directories. Manually one by one or using a script, or a command ?

All 90 directories within seconds using a simple command.

```
mkdir day{1..90}
```

Tasks 1: You have to do the same using Shell Script i.e using either Loops or command with start day and end day variables using arguments -

So Write a bash script createDirectories.sh that when the script is executed with three given arguments (one is directory name and second is start number of directories and third is the end number of directories) it creates specified number of directories with a dynamic directory name.

Example 1: When the script is executed as

```
./createDirectories.sh day 1 90
```

then it creates 90 directories as day1 day2 day3 day90

Example 2: When the script is executed as

```
./createDirectories.sh Movie 20 50
```

then it creates 50 directories as Movie20
Movie21 Movie23 ...Movie50

```
Activities Terminal Feb 8 20:50
root@localhost:~/Challenge — vim

#!/bin/bash

read -p "Enter the starting name of the directories: " name
read -p "Enter the star number of the directory: " st
read -p "Enter the end number of the directory: " end

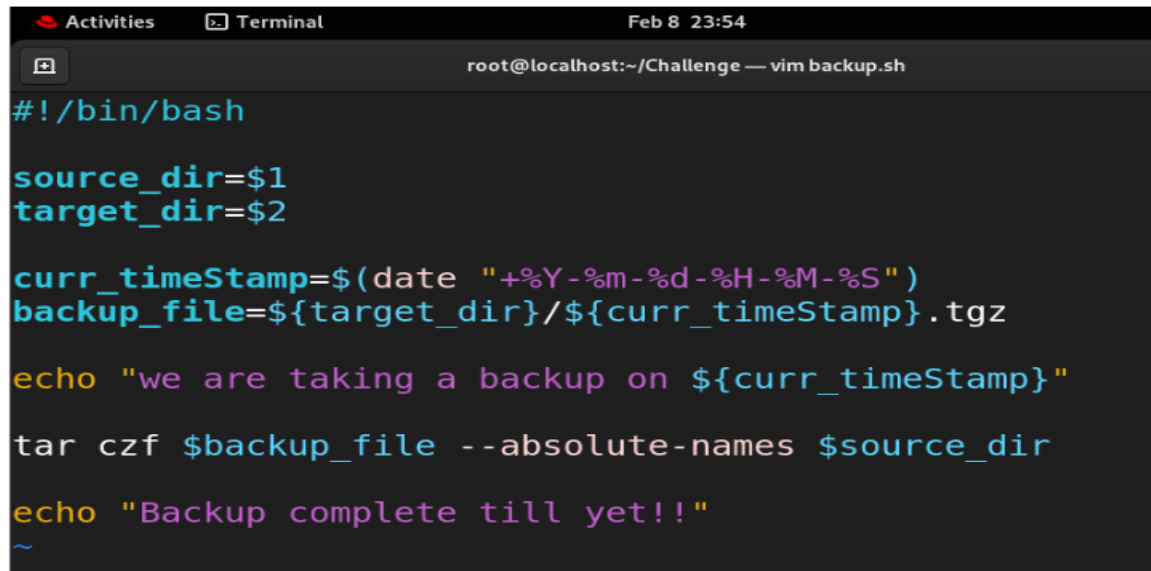
while [ $st -le $end ]
do
    mkdir $name$st
    st=$((st+1))
done
echo "done"
```

```
Activities Terminal Feb 8 20:51
root@localhost:~/Challenge

[root@localhost Challenge]# vim createDirectories.sh
[root@localhost Challenge]# chmod +x createDirectories.sh
[root@localhost Challenge]# ls
createDirectories.sh
[root@localhost Challenge]# ./createDirectories.sh
Enter the starting name of the directories: test
Enter the star number of the directory: 5
Enter the end number of the directory: 25
done
[root@localhost Challenge]# ls
createDirectories.sh test11 test13 test15 test17 test19 test21 test23 test25 test6 test8
test10 test12 test14 test16 test18 test20 test22 test24 test5 test7 test9
[root@localhost Challenge]#
```

Tasks 2: Create a Script to backup all your work done till now.

Backups are an important part of DevOps Engineers day to Day activities The video in References will help you to understand How a DevOps Engineer takes backups



```
Activities Terminal Feb 8 23:54
root@localhost:~/Challenge — vim backup.sh

#!/bin/bash

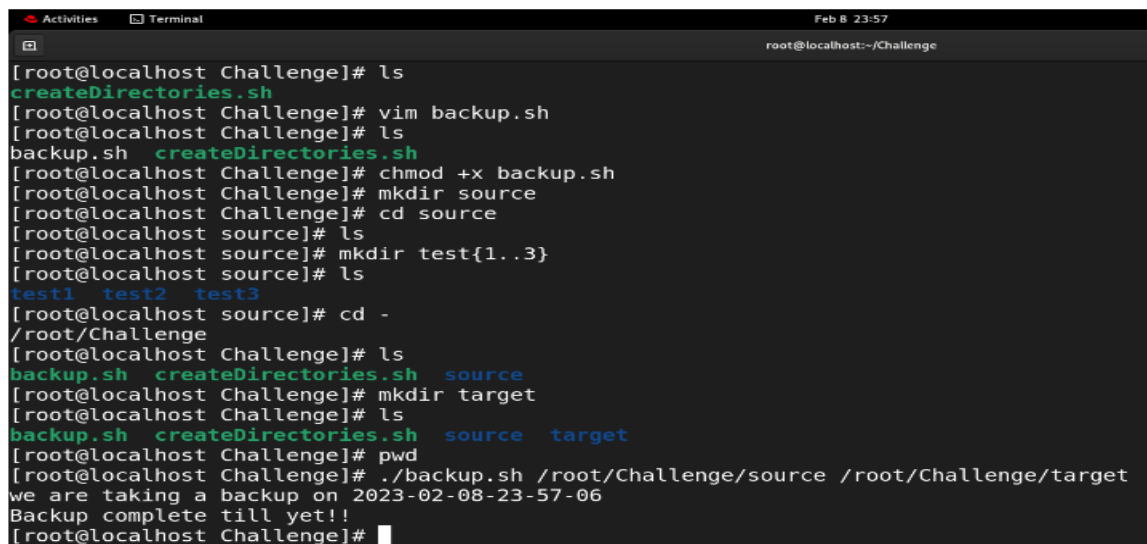
source_dir=$1
target_dir=$2

curr_timeStamp=$(date "+%Y-%m-%d-%H-%M-%S")
backup_file=${target_dir}/${curr_timeStamp}.tgz

echo "we are taking a backup on ${curr_timeStamp}"

tar czf $backup_file --absolute-names $source_dir

echo "Backup complete till yet!!"
~
```

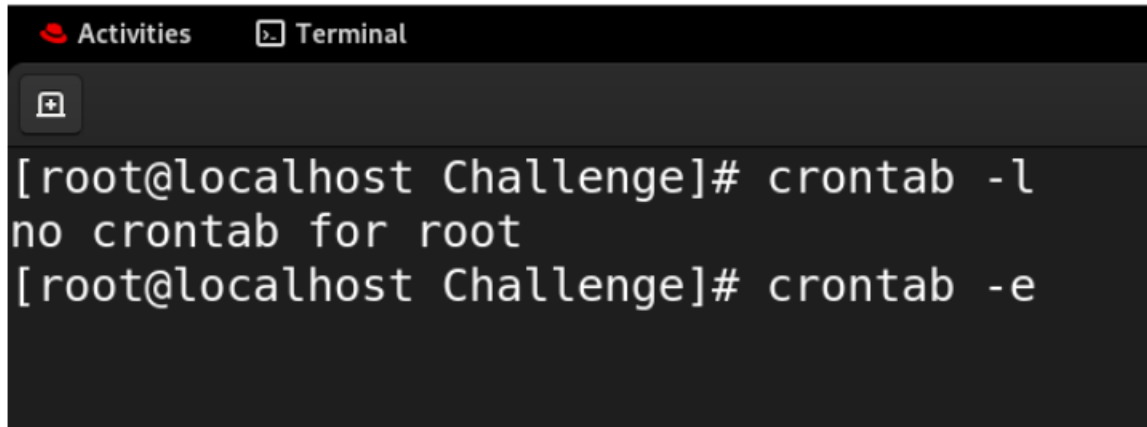


```
Activities Terminal Feb 8 23:57
root@localhost:~/Challenge

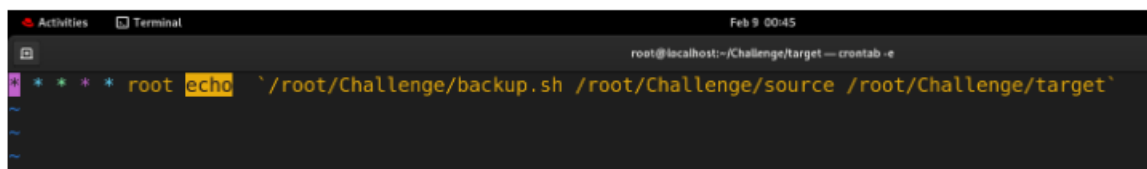
[root@localhost Challenge]# ls
createDirectories.sh
[root@localhost Challenge]# vim backup.sh
[root@localhost Challenge]# ls
backup.sh createDirectories.sh
[root@localhost Challenge]# chmod +x backup.sh
[root@localhost Challenge]# mkdir source
[root@localhost Challenge]# cd source
[root@localhost source]# ls
[root@localhost source]# mkdir test{1..3}
[root@localhost source]# ls
test1 test2 test3
[root@localhost source]# cd -
/root/Challenge
[root@localhost Challenge]# ls
backup.sh createDirectories.sh source
[root@localhost Challenge]# mkdir target
[root@localhost Challenge]# ls
backup.sh createDirectories.sh source target
[root@localhost Challenge]# pwd
/root/Challenge
[root@localhost Challenge]# ./backup.sh /root/Challenge/source /root/Challenge/target
we are taking a backup on 2023-02-08-23-57-06
Backup complete till yet!!
[root@localhost Challenge]#
```

Tasks 3: Read About Cron and Crontab, to automate the backup Script

Cron is the system's main scheduler for running jobs or tasks unattended. A command called crontab allows the user to submit, edit or delete entries to cron. A crontab file is a user file that holds the scheduling information.

A terminal window titled 'Terminal' with a dark background. The prompt is '[root@localhost Challenge]#'. The first command entered is 'crontab -l', which results in the output 'no crontab for root'. The second command entered is 'crontab -e'.

```
[root@localhost Challenge]# crontab -l
no crontab for root
[root@localhost Challenge]# crontab -e
```

A terminal window titled 'Terminal' with a dark background. The prompt is 'root@localhost:~/Challenge/target ~ crontab -e'. The command entered is 'echo "/root/Challenge/backup.sh /root/Challenge/source /root/Challenge/target' with the word 'echo' highlighted in yellow.

```
root@localhost:~/Challenge/target ~ crontab -e
root echo "/root/Challenge/backup.sh /root/Challenge/source /root/Challenge/target"
```

Task 4: Read about User Management and Let me know on LinkedIn if you're ready for Day 6.

A user is an entity, in a Linux operating system, that can manipulate files and perform several other operations. Each user is assigned an ID that is unique for each user in the operating system. In this post, we will learn about users and commands which are used to get information about the users. After installation of the operating system, the ID 0 is assigned to the root user and the IDs 1 to 999 (both inclusive) are assigned to the system users and hence the ids for local user begins from 1000 onwards

Task 5: Create 2 users and just display their Usernames

```
Activities Terminal
[+]
[root@localhost ~]# useradd user1
[root@localhost ~]# useradd user2
[root@localhost ~]# passwd user1
Changing password for user user1.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]# passwd user2
Changing password for user user2.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
```

```
[root@localhost ~]# man tail
[root@localhost ~]# awk -F: '{print $1}' /etc/passwd | tail -n 2
user1
user2
[root@localhost ~]#
```

Thank You

FOLLOW UP



Thank you for giving your precious time for reading this blog/article and also follow [Vishu Goyal](#) for more such blogs/article and also thanks a lot for keeping your calm and reading till end. I hope this article helped you :) Happy coding!

You can also mail me: vishugoyal247@gmail.com