Assignment 1 – Linux Filesystem Mastery

1. Create the following directory structure:

```
linux_practice/
├── day1/
│   ├── files/
│   └── backup/
```

```
ubuntu@ip-172-31-5-27: ~/linux_practice/day1/files
ubuntu@ip-172-31-5-27:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-5-27:~$ mkdir linux_practice
ubuntu@ip-172-31-5-27:~$ cd linux_practice
ubuntu@ip-172-31-5-27:~/linux_practice$ mkdir day1
ubuntu@ip-172-31-5-27:~/linux_practice$ cd day1
ubuntu@ip-172-31-5-27:~/linux_practice/day1$ mkdir files backup
```

2. Inside files/:

- Create 3 text files
- Write content using both > and >>
- Display content using cat, less, head, tail

```
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ touch file1 file2 file3
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ rm file1 file2 file3
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ touch file1.txt file2.txt
file3.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ ls
file1.txt  file2.txt  file3.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This text is in File
1." > file1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file1.txt
This text is in File1.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This text is in File
2." > file2.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file2.txt
This text is in File2.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This text is in File
3." > file3.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file3.txt
This text is in File3.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This is day 2 assign
ment." >> file1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file1.txt
This text is in File1.
This is day 2 assignment.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This is day 2 assign
ment." >> file2.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ echo "This is day 2 assign
ment." >> file3.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file2.txt
This text is in File2.
This is day 2 assignment.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cat file3.txt
This text is in File3.
This is day 2 assignment.
```

```
This text is in File1.
This is day 2 assignment.
Linux is an open source.
Linux supports multitasking.
Linux is portable.
Linux is multi user.
Linux is based on UNIX.
file1.txt (END)
```

```
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ less file1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ head file1.txt -n 2
This text is in File1.
This is day 2 assignment.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ tail file1.txt -n 2
Linux is multi user.
Linux is based on UNIX.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$
```

3. Copy one file to backup/ and rename it.

```
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cp file1.txt ../backup
ubuntu@ip-172-31-5-27:~/linux_practice/day1/files$ cd ..
ubuntu@ip-172-31-5-27:~/linux_practice/day1$ cd backup/
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ ls
file1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ mv file1.txt test1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ ls
test1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$
```

4. Search for a specific word across all files using grep.

```
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ mv file1.txt test1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ ls
test1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ grep portable test1.txt
Linux is portable.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$
```

5. Use find to locate:

- Files created today
- Files larger than 1 KB

```
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ date
Tue Jan 13 10:05:50 UTC 2026
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ find -ctime -1
.
./test1.txt
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ find . -size +1k
.
ubuntu@ip-172-31-5-27:~/linux_practice/day1/backup$ cd ..
ubuntu@ip-172-31-5-27:~/linux_practice/day1$ find . -size +1k
.
./backup
./files
ubuntu@ip-172-31-5-27:~/linux_practice/day1$
```