boa3444 / **Linux_Lab**

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Linux_Lab / **Assignments** / **LAB4.md** ⧉   ⋯

👤 **boa3444** Create LAB4.md   acd6f7e · now ⟲

156 lines (115 loc) · 4.23 KB

Preview   Code   Blame   👥   Raw ⧉ ⬇   ✎ ⌄   ☰

LAB 4 – File & Backup Automation

Objective

Automate file backup for `.txt` files with timestamped filenames.
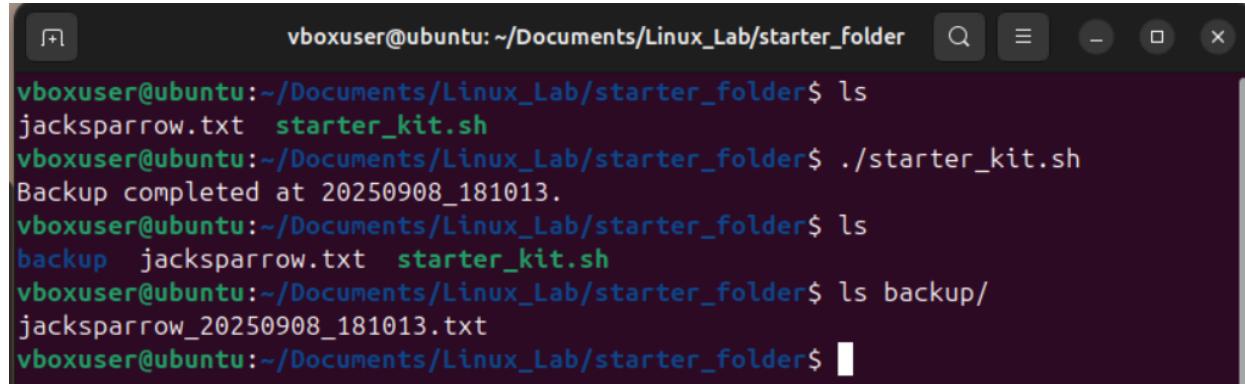
Script: `backup.sh`

- Creates a `backup/` folder if missing.
- Finds all `.txt` files in current directory.
- Copies each file into `backup/` with timestamp suffix.

Example Run

```
$ touch notes.txt report.txt
$ ./backup.sh
Backup completed at 20240908_232900
$ ls backup/
notes_20240908_232900.txt   report_20240908_232900.txt
```

CODE OUTPUT:

```
vboxuser@ubuntu: ~/Documents/Linux_Lab/starter_folder                     🔍  ☰   _  □  ✕

vboxuser@ubuntu:~/Documents/Linux_Lab/starter_folder$ ls
jacksparrow.txt  starter_kit.sh
vboxuser@ubuntu:~/Documents/Linux_Lab/starter_folder$ ./starter_kit.sh
Backup completed at 20250908_181013.
vboxuser@ubuntu:~/Documents/Linux_Lab/starter_folder$ ls
backup  jacksparrow.txt  starter_kit.sh
vboxuser@ubuntu:~/Documents/Linux_Lab/starter_folder$ ls backup/
jacksparrow_20250908_181013.txt
vboxuser@ubuntu:~/Documents/Linux_Lab/starter_folder$ ▮
```

Line by Line Explanation:

Terminal Session with Commentary

```
$ touch notes.txt report.txt
```

➡️ Creates two empty files named `notes.txt` and `report.txt`. These are placeholder files to demonstrate the backup process.

```
$ ./backup.sh
Backup completed at 20240908_232900
```

➡️ Runs the `backup.sh` script.

- The script captures the current timestamp (`20240908_232900`).
- It creates a `backup/` directory if it doesn't exist.
- It copies each file (`notes.txt` , `report.txt`) into the `backup/` directory.
- Each copy is renamed to include the timestamp.
- The message confirms the backup was successful and shows the timestamp used.

```
$ ls backup/
notes_20240908_232900.txt  report_20240908_232900.txt
```

➡️ Lists the contents of the `backup/` directory.

- Shows the two backed-up files, renamed with the timestamp suffix.
- Confirms that both files were successfully copied and renamed.

Extra Questions:

Q1. What is the difference between cp, mv, and rsync?

Command	Function	Notes
cp	Copy files	Keeps original intact
mv	Move/Rename	Deletes original after move
rsync	Sync files	Skips unchanged, supports remote & incremental copy

Q2. How can you schedule scripts to run automatically?

Linux (`cron`)

```
crontab -e
# Run daily at 8 AM
0 8 * * * /path/to/script.sh
```

Appendix: Raw Markdown Source

To ensure reproducibility and peer learning, the full Markdown source of this lab report is included below.

```
# LAB 4 – File & Backup Automation

## Objective
Automate file backup for `.txt` files with timestamped filenames.

## Script: `backup.sh`
- Creates a `backup/` folder if missing.
- Finds all `.txt` files in current directory.
- Copies each file into `backup/` with timestamp suffix.

## Example Run
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$ touch notes.txt report.txt
$ ./backup.sh
Backup completed at 20240908_232900
$ ls backup/
notes_20240908_232900.txt  report_20240908_232900.txt
```
```

CODE OUTPUT:
![](https://github.com/boa3444/Linux_Lab/blob/a66349f1b01ae84e094b472b3cc73

Line by Line Explanation:

Terminal Session with Commentary

```bash
$ touch notes.txt report.txt
```

➡ Creates two empty files named `notes.txt` and `report.txt`. These are pl

```bash
$ ./backup.sh
Backup completed at 20240908_232900
```

➡ Runs the `backup.sh` script.
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```bash
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Q1. What is the difference between cp, mv, and rsync?

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