SCRIPT1

```
GNU nano 8.4                                                backup.sh
#!bin/bash
# backup a specified directory to a backup folder with timestamps
#Author: Anveshna
#Date: 18 november 2025

source_dir=$1
source_dir=$2
timestamp=$(date +%Y%m%d%H%M%S)

if [ ! -d "$backup_dir" ]; then
        mkdir -p "$backup_dir"
fi

cp -r"$source_dir" "$backup_dir/backup_$timestamp"
echo"Backup of $source_dir completed at $backup_dir/backup_$timestamp"
```

```
ubuntu@ubuntu:~$ nano backup.sh
ubuntu@ubuntu:~$ ls
Desktop    Downloads  Pictures  Templates  backup.sh       snap
Documents  Music      Public    Videos     backup.sh.save
ubuntu@ubuntu:~$ mkdir dir1
ubuntu@ubuntu:~$ mkdir dir2
ubuntu@ubuntu:~$ cd dir1
ubuntu@ubuntu:~/dir1$ cat > file1.txt
this is file 1 , i will practice commands here .
ubuntu@ubuntu:~/dir1$ cat backup.sh
cat: backup.sh: No such file or directory (os error 2)
ubuntu@ubuntu:~/dir1$ cd ..
ubuntu@ubuntu:~$ cat bakup.sh
cat: bakup.sh: No such file or directory (os error 2)
ubuntu@ubuntu:~$ cat backup.sh
#!bin/bash
# backup a specified directory to a backup folder with timestamps
#Author: Anveshna
#Date: 18 november 2025

source_dir=$1
source_dir=$2
timestamp=$(date +%Y%m%d%H%M%S)

if [ ! -d "$backup_dir" ]; then
        mkdir -p "$backup_dir"
fi

cp -r"$source_dir" "$backup_dir/backup_$timestamp"
echo"Backup of $source_dir completed at $backup_dir/backup_$timestamp"
```

SCRIPT 2

```
  GNU nano 8.4                                                    monitor_cpu_mem.s
#!/bin/bash
# Purpose: Log CPU and memory usage to a file at regular intervals
# Author: Anveshna
# Date: 18 November 2025
# Usage: ./monitor_cpu_mem.sh interval_in_seconds output_file

interval=$1
output_file=$2


echo "Timestamps, CPU_Usage(%), Memory_Usage(%)" > "$output_file"

while true; do
  timestamp=$(date +%Y-%m-%d\ %H:%M:%S)
  cpu_usage=$(top -bn1 | grep "Cpu(s)" | awk '{print 100- $8}')
  echo "$timestamp, $cpu_usage, $mem_usage" >> "$output_file"
  sleep "$interval"
done
```

```
ubuntu@ubuntu:~$ nano monitor_cpu_mem.sh
ubuntu@ubuntu:~$ sudo chmod +x download.sh
chmod: cannot access 'download.sh': No such file or directory
ubuntu@ubuntu:~$ ls
Desktop    Downloads  Pictures  Templates  backup.sh       dir1  monitor_cpu_mem.sh
Documents  Music      Public    Videos     backup.sh.save  dir2  snap
ubuntu@ubuntu:~$ sudo chmod +x monitor_cpu_mem.sh
ubuntu@ubuntu:~$ ./monitor_cpu_mem.sh 5 usage.csv

cpu_mem^C
ubuntu@ubuntu:~$ cat usage.csv
Timestamps, CPU_Usage(%), Memory_Usage(%)
2025-11-18 15:59:38, 100,
2025-11-18 15:59:44, 75,
2025-11-18 15:59:49, 100,
2025-11-18 15:59:54, 100,
2025-11-18 15:59:59, 36.4,
2025-11-18 16:00:05, 18.2,
2025-11-18 16:00:10, 10,
2025-11-18 16:00:15, 18.2,
ubuntu@ubuntu:~$
```

SCRIPT 3

```
  GNU nano 8.4                                                download_file.sh
#!/bin/bash
# Purpose: Download a file from the internet and save it to a specified location
# Author: Anveshna
# Date: 18 November 2025
# Usage: ./download_file.sh <url> <destinantion>

if [ $# -ne 2 ]; then
  echo "Usage: $0 <url> <destination>"
  exit 1
fi

url=$1
destination=$2

# Download file using wget
wget -0 "$destination" "$url"

# Check if download was successful
if [ $? -eq 0 ]; then
  echo "File downloaded successfully to '$destination'"
else
  echo "Error: Failed to download file from '$url'"
fi
```

```
ubuntu@ubuntu:~$ wget https://d2u1z1lopyfwlx.cloudfront.net/thumbnails/a057963e-5b98-5302-8868-962755e92268/943be709-ec94-5bb2-b9dd-60c5e75bb787.jpg -
O ~/Downloads/myimage.jpg
--2025-11-18 17:06:07--  https://d2u1z1lopyfwlx.cloudfront.net/thumbnails/a057963e-5b98-5302-8868-962755e92268/943be709-ec94-5bb2-b9dd-60c5e75bb787.jp
g
Resolving d2u1z1lopyfwlx.cloudfront.net (d2u1z1lopyfwlx.cloudfront.net)... 18.245.218.17, 18.245.218.24, 18.245.218.32, ...
Connecting to d2u1z1lopyfwlx.cloudfront.net (d2u1z1lopyfwlx.cloudfront.net)|18.245.218.17|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24633 (24K) [image/jpeg]
Saving to: '/home/ubuntu/Downloads/myimage.jpg'

/home/ubuntu/Downloads/myimage.jpg    100%[=================================================================>]  24.06K  --.-KB/s    in 0.09s

2025-11-18 17:06:08 (262 KB/s) - '/home/ubuntu/Downloads/myimage.jpg' saved [24633/24633]
```