Linux Programming- Assignment 8



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**11. User-defined function in shell script:**  
A function is a block of code you can call many times.  
Example:

myfunc() {

echo "This is a function"

}

myfunc

**12. Script with function to multiply two numbers:**

#!/bin/bash

multiply() {

result=$(( $1 \* $2 ))

echo "Product is $result"

}

multiply 4 5

**13. Arrays in bash (1D, 2D, 3D):**

* **1D array:** arr=(10 20 30)
* **2D array:** Bash doesn’t support true 2D, but you can use nested arrays or index tricks like arr[0,0]=5.
* **3D array:** Same trick, just more indices arr[0,0,0]=7.

**14. Script to display array elements:**

#!/bin/bash

arr=(10 20 30 40)

for i in "${arr[@]}"

do

echo $i

done

**15. Purpose of cron:**  
cron is used to schedule tasks to run automatically at set times (like backups, cleanups).

**16. Cron job for backup at midnight:**  
Edit cron with crontab -e and add:

0 0 \* \* \* /home/user/backup.sh

**17. Schedule one-time job using at:**

at 10:30 PM

./myscript.sh

Ctrl+D

**18. Script to display disk usage:**

#!/bin/bash

df -h

du -sh \*

**19. Log script output using tee:**

./myscript.sh | tee logfile.txt