

1. Write about BIOS and MBR stages of a typical Linux boot process.
2. Write a program to send a message (pass through command line arguments) into a message queue. Send few messages with unique message numbers.
3. Write about File permissions in Basic Linux commands.
4. Write a program to receive a particular message from the message queue. Use message number to receive the particular message.
5. Write about Linux File system.
6. Write a command
to sort the file OS and write the output into the file f22. Also eliminate duplicate lines.
to display the unique lines of the sorted file f21. Also display the number of occurrences of each line.
7. Write about Grub and Kernel stages of a typical Linux boot process
8. Write a command
to sort the file /etc/passwd in descending order to sort the file /etc/passwd by user-id numerically.
9. Write about init and run level stages of a typical Linux boot process.
10. Write a command
 - a. to cut 5 to 8 characters of the file f1.
 - b. to display user-id of all the users in your system.
11. Write about Vi Editors.
12. Write a program to perform process synchronization in producer-consumer problem
13. Write about OS161 file system.

14. Write a Program to demonstrate the concept of process creation.

15. Write the OS161 Installation steps

16. Write a program to find the factorial of a given number.

17. Understanding the OS161 file system and working with test programs

18. Write a program using `execlp()`. Rewrite the same using `execlp()` and `execv()` functions.

19. Write a program to check all the files in the present working directory for a pattern (passed through command line) and display the name of the file followed by a message stating that the pattern is available or not available.

20. Write about basic linux commands

21. Given the following values `num=10`, `x=*`, `y=`date`` `a="Hello, 'he said'"`. Execute and write the output of the following commands

`echo num`, `echo $num`, `echo $x`, `echo ${date}`.

22. Write a program to send a message (pass through command line arguments) into a message queue. Send few messages with unique message numbers.

23. Write a program to receive a particular message from the message queue. Use message number to receive the particular message

24. Write a program to do the following:

Create two processes, one is for writing into the shared memory (`shm_write.c`) and another is for reading from the shared memory (`shm_read.c`). In the shared memory, the writing process, creates a shared memory of size 1K (and flags) and attaches the shared memory. The write process writes the data read from the standard input into the shared memory. Last byte signifies the end of buffer. Read process would read from the shared memory and write to the standard

25. Write a command

to display the names of nologin users.

to sort the file `/etc/passwd` in descending order

26. State the Steps to Build the Software from Source file

27. Write a shell script to print a greeting as specified below. If hour is greater than or equal to 0 (midnight) and less than or equal to 11 (up to 11:59:59), "Good morning" is displayed. If hour is greater than or equal to 12 (noon) and less than or equal to 17 (up to 5:59:59 p.m.), "Good afternoon" is displayed. If neither of the preceding two conditions is satisfied, "Good evening" is displayed.

28. Write a program to check whether the file has execute permission or not. If not, add the permission.