

**Lab Tasks**

**By**

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**Subject:** Operating System

**( LAB 05 )**

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**BSCS SEMESTER – 5**

**RIPHAH INTERNATIONAL UNIVERSITY**

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## Task 01

You are working on a project that requires generating and formatting timestamps for log files. You need to create a report that includes the following information for each log entry:

1. The time of the log entry in the 12-hour format with AM/PM.

```
Loading...

Welcome to Fedora 33 (riscv64)

[root@localhost ~]# touch log_entry
[root@localhost ~]# date +%r
10:54:58 AM
```

2. The date of the log entry in the "Month Day Year" format.

```
[root@localhost ~]# date +%B/%A/%Y
September/Sunday/2024
```

3. The full weekday name for the log entry.

```
[root@localhost ~]# date +%A
Sunday
```

4. The numerical representation of the month.

```
[root@localhost ~]# date +%m
09
```

5. The last two digits of the year.

```
[root@localhost ~]# date +%y
24
```

## Task 02

What command would you use to display the current time in a 24-hour format with only hours and minutes?

```
[root@localhost ~]# date +%H:%M  
14:36  
[root@localhost ~]#
```

## Task 03

What is the command to get the current year in four-digit format?

**date +%Y**

```
[root@localhost ~]# date +%Y  
2024  
[root@localhost ~]#
```

## Task 04

How can you get the current date in a combined format of numerical day, month, and year and Time?

date "+%d:%m:%y %H:%M:%S"

```
[root@localhost ~]# date "+%d:%m:%y %H:%M:%S"  
15:09:24 11:26:25  
[root@localhost ~]#
```

## Task 05

You need to determine the date of the previous day from today. Write the command that you would use to get yesterday's date

date --date="yesterday"

```
[root@localhost ~]# date --date="yesterday"  
Sat Sep 14 11:27:52 AM UTC 2024
```

## Task 06

You are preparing a schedule and need to find out the date for the following day. What command should you use to display tomorrow's date

date --date="tomorrow"

```
[root@localhost ~]# date --date="tomorrow"  
Mon Sep 16 11:30:30 AM UTC 2024  
[root@localhost ~]#
```

### Task 07

Suppose you are working on a report that needs to include the date exactly 10 days before today. Which command will help you find this date?

`date --date="10 days ago"`

```
[root@localhost ~]# date --date="10 days ago"  
Thu Sep 5 11:32:03 AM UTC 2024  
[root@localhost ~]#
```

### Task 08

You need to quickly view the calendar for the current month to check upcoming events. What is the command to display the calendar for the current month?

`cal`

```
[root@localhost ~]# cal  
September 2024  
Su Mo Tu We Th Fr Sa  
1 2 3 4 5 6 7  
8 9 10 11 12 13 14  
15 16 17 18 19 20 21  
22 23 24 25 26 27 28  
29 30  
  
[root@localhost ~]#
```

### Task 09

You are organizing a historical review and need to view the calendar for May 2024. Write the command that will show the calendar for this specific month and year. (0.5 Marks)

`cal 05 2024`

```
[root@localhost ~]# cal 05 2024
    May 2024
Su Mo Tu We Th Fr Sa
    1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31

[root@localhost ~]#
```

### Task 10

```
[root@localhost ~]# echo "Welcome! to my house: $(date)"
Welcome! to my house: Sun Sep 15 11:48:33 AM UTC 2024
[root@localhost ~]# clear
```

After displaying the welcoming message, the screen should be cleared to keep the terminal uncluttered before moving on to the next part of the script.

### clear is for a clear screen

### Task 11

You have a file named `data.txt` containing a list of strings, one per line. How would you sort these strings in reverse alphabetical order?

```
[root@localhost ~]# cat > data.txt
Banana
Orange
Grapes
Cherries
Mango
Papaya
[root@localhost ~]# sort -r data.txt
Papaya
Orange
Mango
Grapes
Cherries
Banana
[root@localhost ~]#
```

(B) You have a file named `records.txt` where each line contains several fields separated by spaces. How would you sort this file based on the values in the second column?

```
[root@localhost ~]# cat > records.txt
Germany 2
China 5
Pakistan 1
Paris 9
Japan 10
Spain 15

[root@localhost ~]# sort -k 2 -n records.txt
Pakistan 1
Germany 2
China 5
Paris 9
Japan 10
Spain 15
```

Sort by numeric columns

### Sort by alphabetically

```
[root@localhost ~]# cat > record.txt
1 china 23
3 Pakistan 50
8 India 40
2 bhera 70
[root@localhost ~]# sort -k2 record.txt
2 bhera 70
1 china 23
8 India 40
3 Pakistan 50
[root@localhost ~]#
```