

**Lab Tasks**

**By**

**FARWA RASHID (45945)**



**Subject: Operating System**

**( LAB 05 )**

**Date: 17/9/2024**

**BSCS SEMESTER – 5**

**RIPHAH INTERNATIONAL UNIVERSITY**

**ISLAMABAD**

**Question 01:**

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

```
[root@localhost ~]# touch log_entry  
[root@localhost ~]# date +%r  
11:47:32 PM
```

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

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

3. The full weekday name for the log entry.

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

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
```

**Question 02:** What command would you use to display the current time in a 24-hour format with only hours and minutes?

`date +%R`

**Question 03:** What is the command to get the current year in four-digit format?

`date +%Y`

**Question 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"`

**Question 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"`

**Question 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"`

**Question 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"`

**Question 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`

**Question 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.

`cal 05 2024`

## Practice of Question 02 – Question 09:

```
[root@localhost ~]# date +%A
Saturday
[root@localhost ~]# date +%m
09
[root@localhost ~]# date +%y
24
[root@localhost ~]# date +%r
12:02:46 AM
[root@localhost ~]# date +%R
00:03
[root@localhost ~]# date +%Y
2024
[root@localhost ~]# date "+%d-%m-%y %H:%M:%S"
15-09-24 00:08:11
[root@localhost ~]# date --date="yesterday"
Sat Sep 14 12:09:57 AM UTC 2024
[root@localhost ~]# date --date="tomorrow"
Mon Sep 16 12:14:56 AM UTC 2024
[root@localhost ~]# date --date="10 days ago"
Thu Sep 5 12:16:05 AM UTC 2024
```

```
[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 ~]# 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
```

**Question 10:** First, you want to print a welcoming message that includes the current date and time. Use the `echo` command for this purpose.

```
[root@localhost ~]# echo Welcome in OS lab today date is $(date +%d) and time is $(date +%R)
Welcome in OS lab today date is 15 and time is 00:29
```

**Question 11:** 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.

We will write `clear` to clear the screen.

**Question 12:** 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
g
e
a
s
y
[root@localhost ~]# sort -r data.txt
y
s
g
e
a
```

**Question 13:** 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 >record.txt
3 apple
2 grapes
1 banana
[root@localhost ~]# sort -k2 record.txt
3 apple
1 banana
2 grapes
```

