**Experiment 1 Execute 15 basic commands of UNIX.**

Introduction:

UNIX is an operating system and was developed by a team of developers in the Bell Labs laboratories in 1960’s, and has been under constant development ever since. It is a stable, multi-user, multi-tasking system for servers, desktops, and laptops. There are many different versions of UNIX, although they share common similarities. The most popular varieties of UNIX are Sun Solaris, GNU/Linux, and MacOS X.

Here in our lab, we’ll use Fedora Linux to be familiar with UNIX.

Objective:

• To learn the basic UNIX commands.

• To be able to work with VI editor.

• To learn UNIX shell programming at an introductory level.

Key Terminologies:

• UNIX command prompt: A command prompt, also referred to simply as a prompt, is a short text message at the start of the command line on a command line interface. The command line is the line on which commands are typed in a console or terminal window. A command is an instruction to tell a computer to do something, e.g., to execute a program. The functions of a command prompt are:

i) to inform the user that the system is ready for the next command, data element or other input.

ii) to help the user plan and execute subsequent operations.

The dollar sign prompt (or a prompt ending with a dollar sign) means that UNIX is now ready to interpret and execute your commands as typed in from your keyboard.

• The VI editor: The default editor that comes with the UNIX operating system is called vi (visual editor). vi is a screen editor where a portion of the file is displayed on the terminal screen, and the cursor can be moved around the screen to indicate where you want to make changes. You can select which part of the file you want to have displayed. Screen editors are also called display editors, or visual editors. vi is one of the more popular screen editors that run on the UNIX system.

• UNIX shell: The shell acts as an interface between the user and the kernel. When a user logs in, the login program checks the username and password and then starts another program called the shell. The shell is a command line interpreter (CLI). It interprets the commands that user types in and arranges for them to be carried out. The commands are themselves programs: when they terminate, the shell gives the user another prompt.

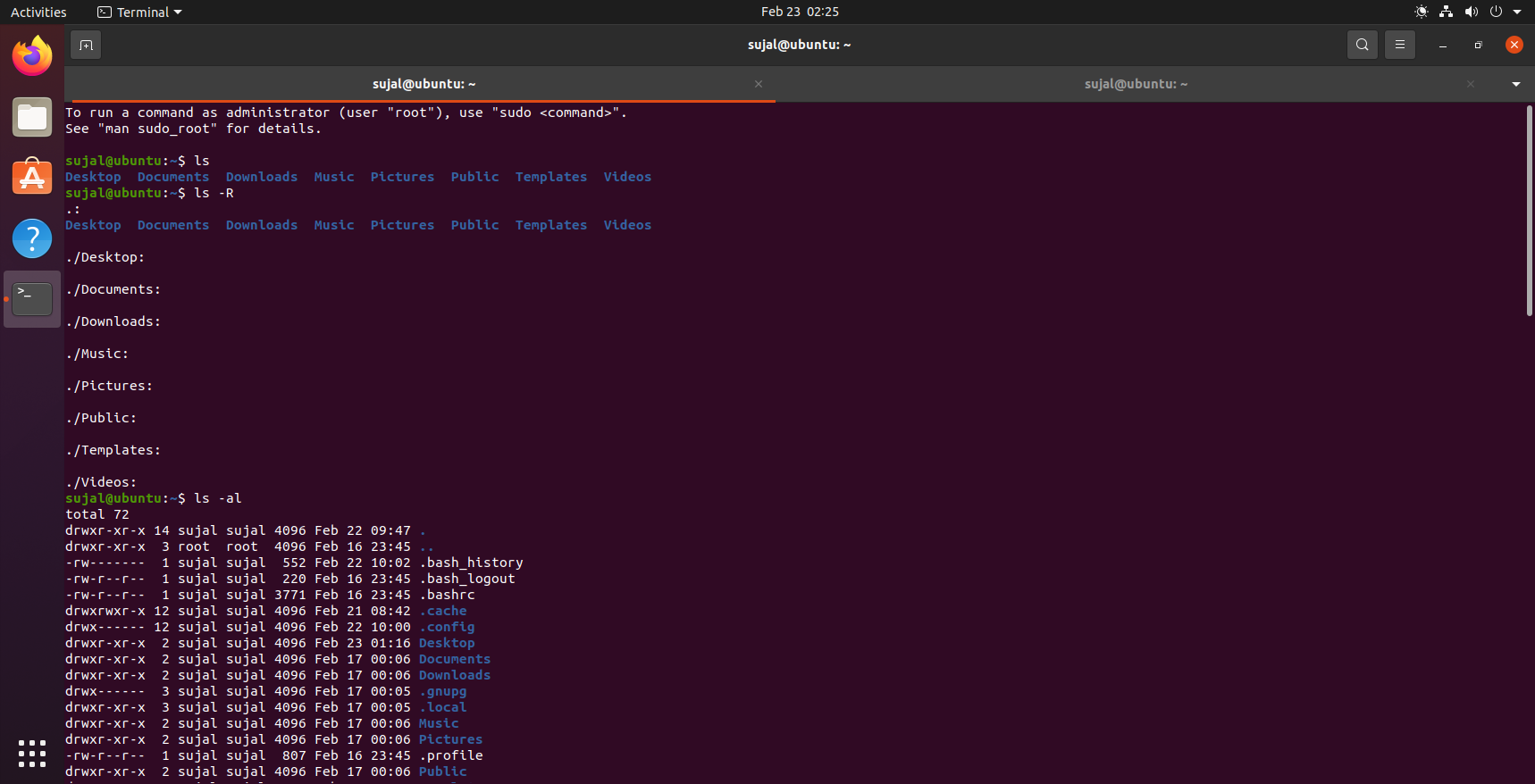
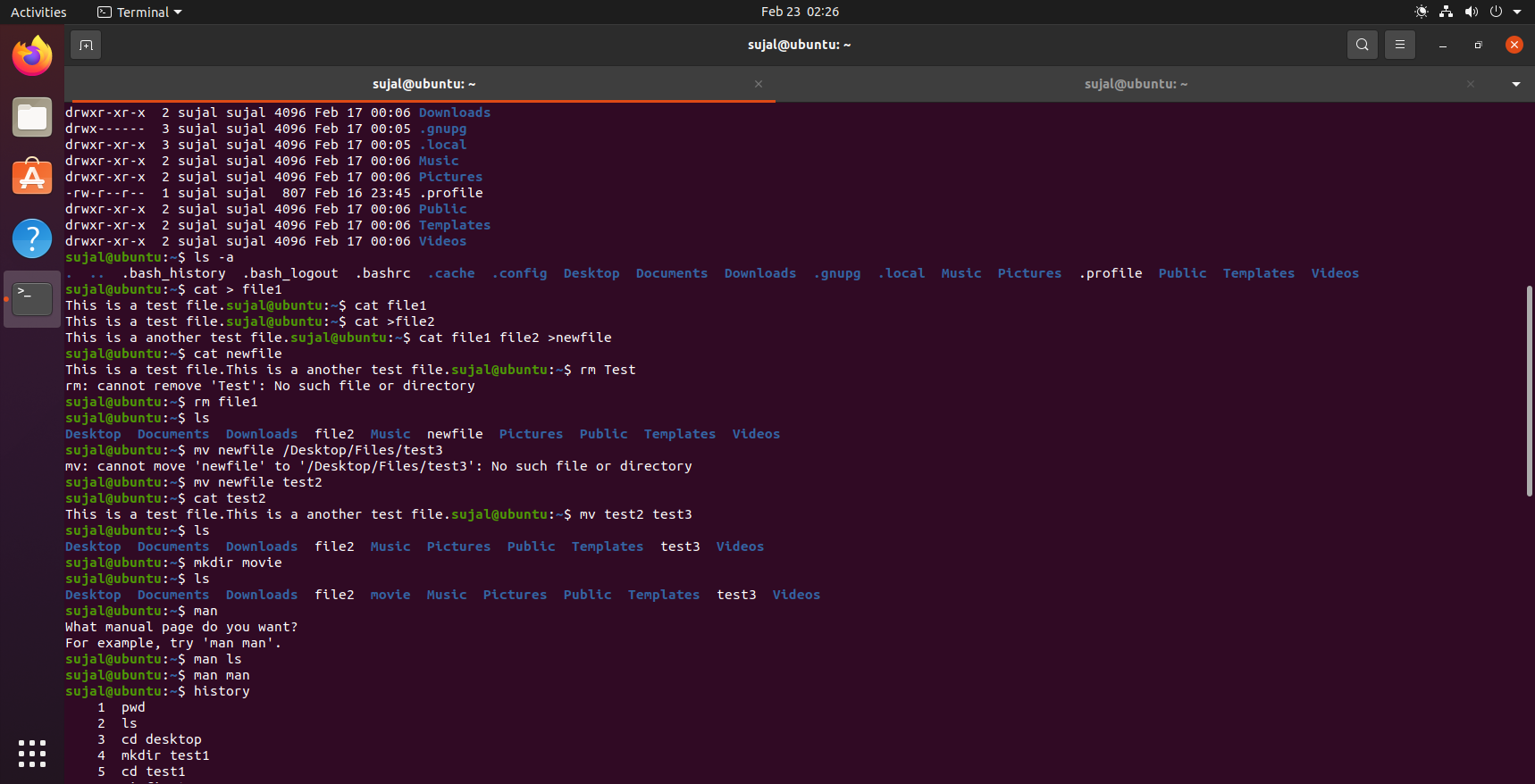
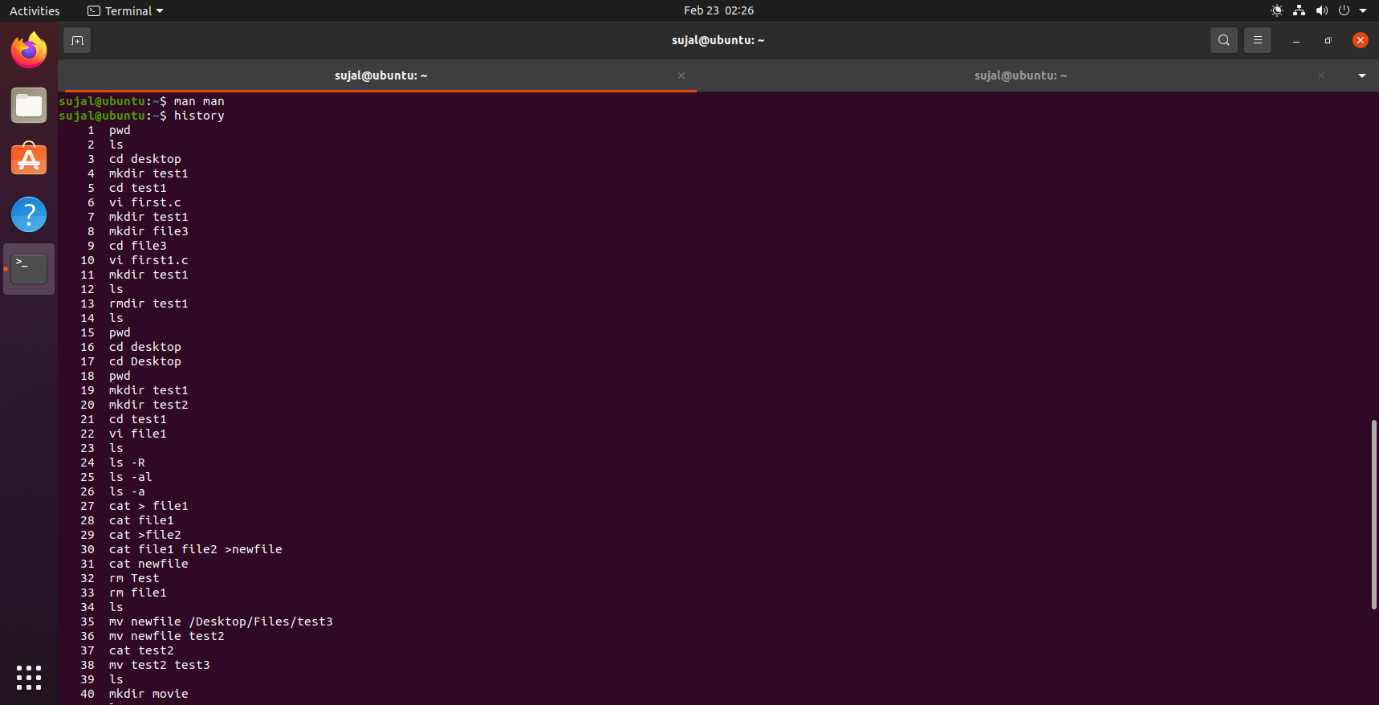
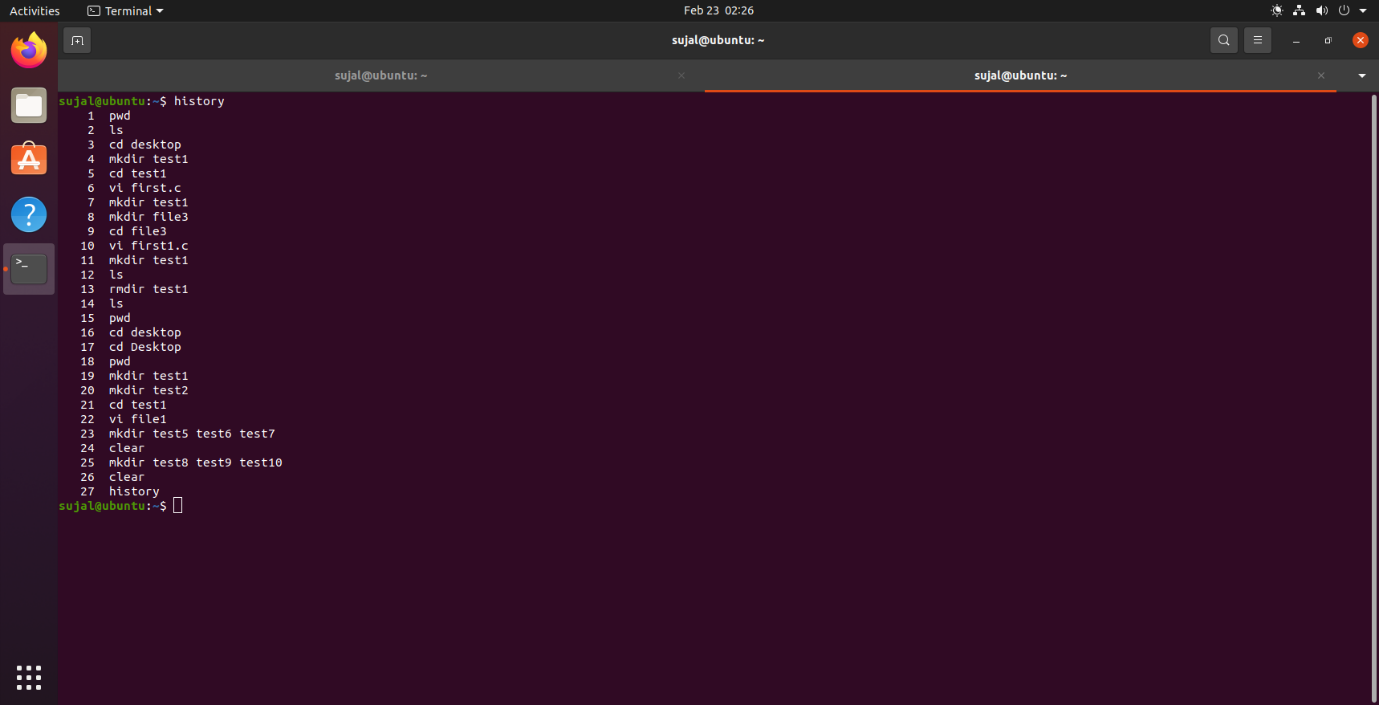
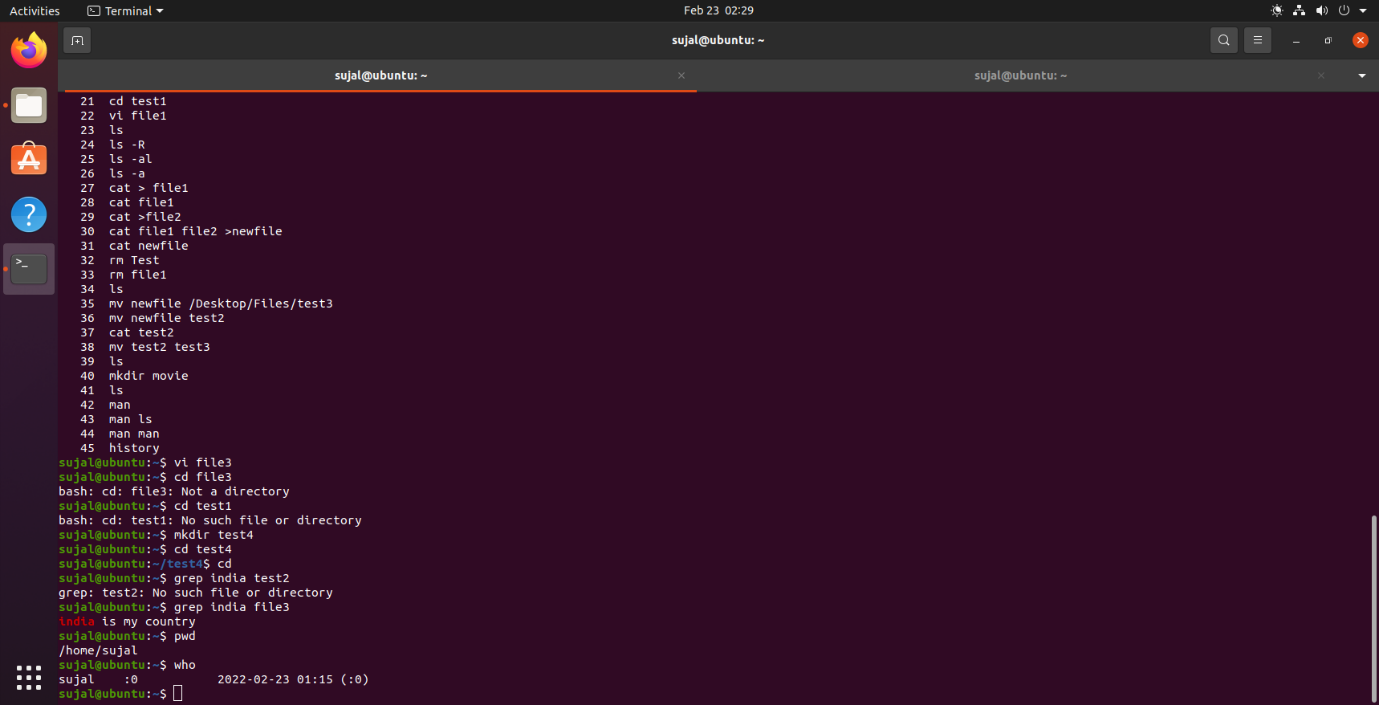
List of Programs

**Program 1: Execute 15 basic commands of UNIX.**

The following table lists some of the basic UNIX commands. To execute the commands, open the command prompt and type those as they are and press ‘Enter’ button.

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|  |  |  |  |
| **SL No.** | **Command** | **Example** | **Description** |
| **1** | Is | ls  ls -alF | Lists files in the current  directory List in long format |
| **2** | Cd | cd  tempdir  cd -  cd absolute path  more | Change directory to tempdir  Move back one directory |
| **3** | Mkdir | mkdir graphics | Make a directory called graphics |
| **4** | Rmdir | rmdir graphics | Remove directory (must be empty) |
| **5** | Cp | cp file1 web-  docs cp file1  file1.bak | Copy file into  directory Make  backup of file1 |
| **6** | Rm | rm  file1.bak  rm \* | Remove or delete file1  Remove all files |
| **7** | Mv | mv old.html  new.html mv file  “new file path” mv  dir1 dir2 | Move or rename files  Moves the files to the new  location Renames dir1 to dir2 |
| **8** | More | more  /var/log/auth.log  cat /var/log/auth.log  | more | Look at file, one page at a time |
| **9** | Ipr | lpr index.html | Send file to printer |
| **10** | man | man ls | Online manual (help) about command |
| **11** | grep  <str><files> | grep “ABC&” \* | Find which files contain a certain word  (e.g. “ABC”) |
| **12** | who | who | Lists who is logged on your machine |
| **13** | cat | cat  filename  cat >  filename  cat file1 file2 > file3 | Displays the contents of the given  file. Creates new file.  Joins two files (file1, file2) and stores the  output in a new file (file3) |
| **14** | head | Head file1.txt | This command helps you to get the first ten lines of a text file. |
| **15** | dir | dir | The dir command is used to print (on the terminal) all the available directories in the present working directory |
| **16** | touch | touch file1.txt | This Ubuntu command can be used to create a new file as well one can use it to change the timestamp of any file |
| **17** | tail | tail file1.txt | The tail command is used to get the last ten lines of the text file |
| **18** | uname | Uname -a | You can use the command to get the release number, version of Linux. |
| **19** | apt-get or -apt | Sudo apt install [packagename] | The syntax will help you to install the required package. |
| **20** | History | History | The history command shows the list of commands. |

SAMPLE OUTPUT



Git-Hub Link : https://github.com/SUJALRAJVANSH/OS-LAB