



The procedure to practise

1. You have been given a set of Spoken tutorials and files.
2. You will typically do one tutorial at a time.
3. You may Listen to a Spoken tutorial and reproduce all the commands shown in the video.
4. If you find it difficult to do the above, you may consider listening to *whole* tutorial once and then practise during the second hearing.
5. You must go through the Spoken tutorials in following sequence.

1 Ubuntu Desktop:

Tutorial required: 01-ubuntu-desktop.ogv

1. Please locate the folder `Linux.Workshop` that is available on your Desktop, this folder contains all the Linux tutorials.
2. Please locate the tutorial `01-ubuntu-desktop.ogv`
3. Right click on `01-ubuntu-desktop.ogv`, point the cursor on **Open With** and select **VLC Media Player**, now listen to this Spoken tutorial.
4. Please follow the tutorial as show in video.

In this tutorial you will learn about Ubuntu Operating System which uses Gnome Desktop Enviroment. Applications, Places and System menus are very well covered in this tutorial. Introduction to calculator, text-editor, Gnome-terminal, firefox web browser and Office application suite are covered in this tutorial. You will also get an idea about the Places and various options under the System menus in this tutorial.

2 Synaptic Package Manager:

Tutorial required: 02-synaptic.ogv

1. Please follow the tutorial as shown in video.

Synaptic Package Manager is a tool to install Software packages. In this tutorial you will learn how to configure repositories, network proxy and install/remove software packages in Ubuntu Operating System.

3 Basic Linux Command:

Tutorial required: 03-basic-commands.ogv

1. Close all the application that you have opened.
2. Open terminal by pressing **Ctrl-Alt-t** keys simultaneously.
3. Please follow the tutorial as shown in video.
4. After reproducing all the commands, please go to the next tutorial **General Purpose Utilities**.

This tutorial covers the basic commands in Linux. In this tutorial you will learn about linux commands and a command interpreter. Also you will learn about various type of shells, how to access manuals and get help on terminal using `man` command.

4 General Purpose Utilities in Linux:

Tutorial required: 04-gen-purpose-utils.ogv

1. Please follow the tutorial as shown in video.

In this tutorial you will learn some of the most basic yet heavily used commands on Linux. The main motivation of this tutorial is to give you a head start about working with Linux. This tutorial covers `echo`, `uname`, `whoami`, `passwd`, `date`, `cal`, `pwd`, `ls`, and `cat` utilities available in Linux.

5 Linux File System:

Tutorial required: 05-linux-file-system.ogv

1. Please follow the tutorial as shown in video.

This tutorial is about the various file systems in Linux. The tutorial explains what are regular files, device file and folder in Linux. Current and parents directories is very well explained in this tutorial. Linux commands like `echo`, `pwd`, `cd`, `mkdir`, and `rmdir` are covered in this tutorial.

6 File Attributes:

Tutorial required: 06-file-attributes.ogv

1. Open terminal by pressing `Ctrl-Alt-t` keys simultaneously.
2. Please create an empty file `example1` using the following command in the terminal.

```
touch example1
```

3. Similarly create the following empty files also: `example1`, `example2`, `example3`, `example4`, `example5` and `testchown`
4. Please follow the tutorial as shown in video.

This tutorial is about the Linux File Attributes. This tutorial describes file permissions, ownership of a file, group permissions, inode, soft and hard links. In this tutorial you will learn how to deal with file/folder permissions, ownership and group permissions. This tutorial will also cover inode number of a file, and how to create a soft and hard links. You will also learn commands such as `chown`, `chmod`, `chgrp`, and `ln`.

7 Redirections and Pipes:

Tutorial required: 07-redirection-pipes.ogv

1. Please follow the tutorial as shown in video.

This tutorial covers the standard input/output, standard error, redirection, pipes, and file descriptor. With pipes and redirection, one can “chain” multiple programs to become extremely powerful commands. Most programs on the command-line accept different modes of operation. Many can read and write to files for data, and most can accept standard input or output.

8 Working with Linux Process:

Tutorial required: 08-linux-process.ogv

1. Please follow the tutorial as shown in video.

This tutorial contains the very rich material on Linux Process, Shell Process, Process ID, Parent Process ID, Spawning, `ps`, parent, child, sub-shell, system process, `init` etc. The Process is one of the fundamental abstractions in Linux Systems, the other fundamental abstraction being files. A process consists of the executing program code, a set of resources such as open files, internal kernel data, an address space, one or more threads of execution and a data section containing global variables.

9 The Linux Environment:

Tutorial required: 09-linux-environment.ogv

1. Please follow the tutorial as shown in video.

This tutorial is about the Linux environment which determines how the operating system behaves with you, how it responds to your commands, how it interprets your actions and so on. Linux can be highly customised by changing the settings of the shell. This tutorial covered the environment and local variables, `PATH`, `HOME`, profile, `history`, and alias.

10 Simple Filter:

Tutorial required: 10-simple-filter.ogv

1. Please follow the tutorial as shown in video.

A filter takes the standard input, does something useful with it, and then returns it as a standard output. Linux has large number of filters. In this tutorial covers commands `head`, `tail`, `sort`, `cut`, `paste`, `grep`, and `sed`.