

# Experiment 1

## Aim

Getting started with Linux basic commands and directory structure, execute file, directory operations.

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## Creating Files and Directories

touch <filename>	create a new file
mkdir <dirname>	create a new directory

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## Current/Working Directory

Current Directory can be found out by pwd.  
pwd stands for “print working directory”

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## Change Directory

command cd is used to change directory  
cd <dirname>

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## Special Directories

Current Directory	.
Parent directory of the current directory	..
Home Directory	~
Root Directory	/
Another user’s directory	~<username>

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## Viewing contents of a text files

cat <filename>	display the text scroll off the screen
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cat <file1> <file2>	concatenate two files
more <filename>	display the file one screenful at a time
less <filename>	similar but faster than more

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## Listing files and directories

ls	list files in the current directory
ls -l	provide a long listing of all files
ls -l -h	same as above command but size will be in human readable forms
ls -F	marks all executables with * and directories with /
ls --color	shows a coloured listing of files
ls -a	shows all files in the present directory including special dot files

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## Copying files and directories

cp <file1> <file2>	copy file1 to file2
cp <file1> <dirname>	copy file1 to directory dirname
cp -r <dirname1> <dirname2>	copy dirname1 directory to dirname2 directory recursively

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## Renaming and moving files

mv <oldname> <newname>	renames file with old name to new name
mv <olddir> <newdir>	renames directory with olddir to newdir

mv <filename> <dirname>	moves file to the directory
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## Removing files

rm <filename>	removes file with old name to new name
rmdir <dirname>	removes empty directory dirname
rmdir -rf <dirname>	removes a non empty directory

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## Some more useful commands

clear	clears the terminal screen
locate	search for a specified filename
passwd	allows to change the password
whoami	displays the current logged in user

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## Getting HELP

man <command name>	find out what the command does
man -f <command name>	one line summary of what the command does
man -k <keyword>	search for a command with keyword

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## Directory Structure in Linux (important files)

File	Content

/bin	Essential User Command Binaries
/boot	Static files of the boot loader
/dev	Device files
/etc	host specific system configuration
/home	user home directories
/lib	essential shared libraries and kernel modules
/mnt	mount point for devices
/opt	add on application software packages
/sbin	system binaries
/tmp	temporary files
/usr	user utilities and applications
/var	variable files
/root	home directory of the root user

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## Executing files

how to execute a file in linux

- cd to the directory which contains the file to be executed
  - type `chmod +x <name_of_file>`
  - type `sh ./<name_of_file>`
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