Linux and ROS Cheat Sheet

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Variable Declaration $VARIABLE stands for a variable whose name is VARIABLE. For example, $FILE means a file named FILE.
sudo sudo means super user do, elevated right granted

File Commands

ls	list contents of files and directories
ls -a	list hidden files and directories
cd $DIR	change working directory to $DIR
cd	change working directory to home
mkdir $DIR	create a directory named $DIR
pwd	print working directory
rm $FILE	remove $FILE
rm -r $DIR	remove $DIR
rm -f $FILE	force remove $FILE
rm -rf $DIR	force remove $DIR
cp $FILE1 $FILE2	copy $FILE1 to $FILE2
cp -r $DIR1 $DIR2	copy $DIR1 to $DIR2
mv $FILE1 $FILE2	move $FILE1 to $FILE2
ln -s $FILE $LINK	create symbolic link $LINK to $FILE
touch $FILE	create $FILE
cat $FILE	view content of $FILE
cat > $FILE	write input into $FILE
more $FILE	print contents of $FILE
head $FILE	print the first 10 lines of $FILE
tail $FILE	print the last 10 lines of $FILE

System Info

env	print environment variables
date	print system date and time
cal	print current month calendar
uptime	print system uptime
w	print online users
whoami	print current user
finger $USER	print information about $USER
uname -a	print kernel information
cat /proc/cpuinfo	print cpu information
cat /proc/meminfo	print memory information
man $COMMAND	print user manual of $COMMAND
df	print disk usage
du	print directory space usage
free	print memory and swap usage
whereis $APP	print locations of $APP
which $APP	print print executable file of $APP

Compression

tar cf $FILE.tar $FILES	convert $FILES into $FILE.tar
tar xf $FILE.tar	extract files from $FILE.tar
tar czf $FILE.tar.gz $FILES	compress $FILES into $FILE.tar.gz using Gzip
tar xfz $FILE.tar.gz	extract files from $FILE.tar.gz using Gzip
gzip $FILE	compress $FILE and rename it as $FILE.gz
gzip -d $FILE.gz	decompress $FILE.gz back to $FILE

Network

apt-get update	synchronize package index files from sources
apt-get upgrade	install latest versions of installed packages
ping $HOST	ping $HOST and print results
whois $DOMAIN	print information about $DOMAIN
dig $DOMAIN	print DNS of $DOMAIN
dig -x $HOST	reverse lookup $HOST
wget $FILE	download $FILE

TODO

difference between ls -a and ls -al
code box for commands
ubuntu mono font for commands
display ip address
sudo apt install
sudo apt update
tar explanation
sudo apt upgrade