

# PDS - LINUX CHEAT SHEET

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## SYSTEM AND ACCOUNTS

### System Administration

!! repeat last command  
exit  
sudo  
uname -a  
hostnamectl  
passwd  
passwd **usr**  
reboot  
kill proc  
man cmd  
rm .local/share/keyrings/login.keyring  
reset keyring / remove all keys

### Processes

./bin execute binary **bin** in current directory  
ps list snapshot of running processes  
top list running processes  
man cmd show manual for command **cmd**  
which cmd locate command (bin) **cmd**  
whereis cmd locate bin, src and man for command **cmd**

## DEBIAN (UBUNTU) PACKAGE MANAGER

### Search and Version Control

apt-cache search **pkg** 1. list packages matching term **pkg**  
apt search **pkg** 2. remark installed packages  
list packages matching term **pkg**

### Install and Update

apt-get update update package manager \*  
apt-get upgrade upgrade all packages \*  
apt-get upgrade **pkg** upgrade package and dep. of **pkg** \*  
apt-get install **pkg** install package **pkg** \*  
apt install **pkg** install package **pkg** \*

## NAVIGATION AND CONTENT

### Navigation

cd change directory to **home** folder  
cd ~ cd to home folder  
cd .. cd one level up  
cd ../../ cd two level up  
cd - cd to previous dir  
cd **dir1/dir2** cd to directory **dir1/dir2**  
pwd show current/working directory

### List Content

ls list directory content  
ls -l list content details  
ls -a list all (inc. hidden files)  
ls -la list details of all content  
ls -l \*.txt list details of .txt files

## FILES AND FOLDERS

### Download Files

curl <https://... .csv> download file from source <https://... .csv>  
wget <https://... .csv> download file from source <https://... .csv>

### Copy - Move - Rename - Remove

cp **fi1 fi2** copy file **fi1** to file **fi2**  
cp -r **fd path** copy folder **fd** to **path**  
mv **fi1 fi2** move (rename) file **fi1** to file **fi2**  
rm **fi** remove file **fi**  
rm -r **fd** remove folder **fd**

### File and Folder Handling

find -name **fn** find file/folder by name **fn**  
touch **fi** create file **fi**  
mkdir **dir/subdir** make directory **dir/subdir**  
chmod **fn** change access rights of file/folder **fn**  
chmod u+x **fn** add exec. rights to user for file/folder **fn**  
cat **fi** print content of file **fi**  
head -n x **fi** print x first lines of file **fi**  
tail -n x **fi** print x last lines of file **fi**  
vim **fn** open file/folder **fn** in vim editor

## NETWORK

### Basic Network Commands

ssh **usr@host** set-up ssh connection to **host** for user **usr**  
scp **usr@host:fi loc/dir** download **fi** from host to **loc/dir** with ssh  
scp -r **loc/dir usr@host:rem/dir** upload **loc/dir** to host dir **rem/dir** with ssh  
exit  
ping -c x **host** close current ssh session  
ping x times to **host**

## JUPYTER NOTEBOOK SERVER

### Server Admin

jupyter-notebook start jupyter notebook server  
jupyter-notebook list list running notebook servers  
jupyter-notebook stop 8888 stop server on port 8888  
kill \$(pgrep jupyter) kill all jupyter processes

## PYTHON

### Python Packages

pip list list installed python packages  
pip\_search **pkg** search for package name **pkg**  
pip install **pkg** install pip package **pkg**  
python -V show the version of python interpreter  
python -m venv **path** create virtual environment in **path**

## VIRTUAL ENVIRONMENT

### Admin Virtual Environment

. activate activate virtual environment  
source activate activate virtual environment