-----------------------------------------------s  
TD 1\_2 Exercice 1:

sudo apt-get update

cat /etc/os-release  
ps -ef  
top  
lscpu|grep cache

df -h  
du -h

cat /proc/mounts  
dmesg | grep usb

hostname

TD 1\_2 Exercice 2:

x="piri pimpin"  
echo $x  
x="$x piri pimpon"  
echo $x

see ~/TD2/my\_programs/pilou

echo $PATH  
/usr/local/bin:/usr/bin:/bin:/usr/local/games:/usr/games

PATH=$PATH:/home/admin/TD2/my\_programs/  
~/TD2/my\_programs>echo $PATH  
/usr/local/bin:/usr/bin:/bin:/usr/local/games:/usr/games:/home/admin/TD1\_2/my\_programs/

--> now you can execute by just typing pilou

cd  
emacs .profile

TD 1\_2 Exercice 3:

see ~/TD1\_2/say\_hello.sh

crontab -l

* + - * + command to be executed

| | | | |  
| | | | ----- Day of week (0 - 7) (Sunday=0 or 7)  
| | | ------- Month (1 - 12)  
| | --------- Day of month (1 - 31)  
| ----------- Hour (0 - 23)  
------------- Minute (0 - 59)

to edit the crontab :  
crontab -e

---> /home/admin/TD1\_2/say\_hello.sh

cat hellos.txt

TD 1\_2 Exercice 5:

cd

sudo apt-get update  
sudo apt-get install qpdf

--> go to /home/admin/TD1\_2/compress

echo "Hello" > hello

cat hello

cat hello | zlib-flate -compress=1 > hello.z

cat hello.z  
xH?~/TD1\_2/compress>

cat hello.z | zlib-flate -uncompress  
Hello

ls -l hello >>log\_compress  
ls -l hello.z >>log\_compress

-----> see write\_hellos.sh

wc -l hello\_multiple  
1000 hello\_multiple

cat hello\_multiple | zlib-flate -compress=1 > hello\_multiple.z

cat hello\_multiple.z | zlib-flate -uncompress | tail

cat hello\_multiple.z | zlib-flate -uncompress | wc -l

ls -l hello\_multiple >>log\_compress

ls -l hello\_multiple.z >>log\_compress

cat hello\_multiple\_i | zlib-flate -compress=1 > hello\_multiple\_i.z

cat hello\_multiple\_i.z | zlib-flate -uncompress | tail

cat hello\_multiple\_i.z | zlib-flate -uncompress | wc -l

TD 1\_2 Exercice 6:

see commands: useradd, groupadd, usermod

TD2\_2:

RSA KEYS:

PUBLIC KEY ON AWS: go to linux terminal:

~>cd .ssh  
~/.ssh>ls -l  
total 4  
-rw------- 1 admin admin 405 Jan 24 07:45 authorized\_keys

----->>> public key

--> save it under you LOCAL .ssh as id\_rsa.pub with permission 644

PRIVATE KEY: go to Lightsail web interface:

to download the private key, use "Connect to your instance" --> "Download default key"  
--> save it under your LOCAL .ssh as id\_rsa WITH 600 PERMISSION (chmod)

Exercise 1.1:  
Here are some other interesting URLs that can be found on the OpenDomesday API:

<https://opendomesday.org/api/1.0/book/> - to get information about the Domesday Book itself  
<https://opendomesday.org/api/1.0/person/> - to get information about people mentioned in the Domesday Book  
<https://opendomesday.org/api/1.0/search/?query=> - to search for specific information in the Domesday Book

curl -s <https://opendomesday.org/api/1.0/place/?county=derbyshire> | grep -o '"id":[0-9]*' | grep -o '[0-9]*'

**Exercise 1.2: Get ids for all places in Derbyshire**

derbyshire\_places=$(curl <https://opendomesday.org/api/1.0/county/Derbyshire/places/> | grep -o '"id":[0-9]\*' | sed 's/"id"://')

**Exercise 1.3: Load details for each place and their manors**

for place\_id in $derbyshire\_places  
do  
curl <https://opendomesday.org/api/1.0/place/$place_id/> > place\_${place\_id}*data.json  
manors=$(cat place*${place\_id}*data.json | grep -o '"manor":[0-9]\*' | sed 's/"manor"://')  
for manor\_id in $manors  
do  
curl*[*https://opendomesday.org/api/1.0/manor/$manor\_id/*](https://opendomesday.org/api/1.0/manor/$manor_id/)*> manor*${manor\_id}\_data.json  
done  
done

**Exercise 1.4: Extract geld and ploughs data for each manor in Derbyshire**

echo "Manor ID, Geld Paid, Number of Ploughs" > derbyshire\_manors.csv  
for place\_id in $derbyshire\_places  
do  
manors=$(cat place\_${place\_id}*data.json | grep -o '"manor":[0-9]\*' | sed 's/"manor"://')  
for manor\_id in $manors  
do  
geld=$(cat manor*${manor\_id}*data.json | grep -o '"geld":[0-9]\*' | sed 's/"geld"://')  
ploughs=$(cat manor*${manor\_id}\_data.json | grep -o '"ploughs":[0-9]\*' | sed 's/"ploughs"://')  
echo "${manor\_id}, ����,{ploughs}" >> derbyshire\_manors.csv  
done  
done

**Exercise 1.5: Sum values in the Geld Paid column of the CSV file**

geld\_sum=$(awk -F', ' '{s+=$2} END {print s}' derbyshire\_manors.csv)  
echo "Total Geld Paid in Derbyshire: $geld\_sum"

Exercise 2: SCP

1 touch test\_to\_remote\_instance.txt  
2  
ssh username@remote\_host  
touch test\_from\_remote\_instance.txt  
exit  
3

scp test\_to\_remote\_instance.txt username@remote\_host:~  
scp username@remote\_host:~/test\_from\_remote\_instance.txt .  
4

local\_file\_path="$1"  
scp "$local\_file\_path" username@remote\_host:~

remote\_file\_path="$1"  
scp username@remote\_host:"$remote\_file\_path" .

chmod +x scp\_to\_remote\_instance.sh scp\_from\_remote\_instance.sh

5

./scp\_to\_remote\_instance.sh /path/to/local/file.txt  
./scp\_from\_remote\_instance.sh /path/to/remote/file.txt