

Tutorial 1 Mise en place et Visite du lab.

Table des matières

- [Objectifs](#)
- [Ressources](#)
- [Pré-Requis](#)

Objectifs

- Mettre en place le laboratoire permettant d'utiliser Ansible sur Google Shell.
- Découvrir le lab et l'infrastructure.
- S'approprier l'usage de google Shell terminal et éditeur.
- Savoir sauvegarder son travail.
- Contrôler l'environnement d'exécution du lab.

Ressources


- Environnement
- Temps : 45 mn.

Pré-Requis

- Avoir un compte Google (gmail par exemple) [créer un compte GMAIL](#)
- Accéder à internet.
- Chrome

Énoncé

1. se Connecter sur le [playGround de DiveInto](#)




Ansible


Dive Into Ansible Lab - 🌟 Official Course Lab 🌟

This lab accompanies the full course [Dive Into Ansible - From Beginner to Expert](#) challenges.

The Dive Into Ansible lab is equipped with an Ansible Control Host (ubuntu-c) and centos3. All instances can be accessed via a web terminal.


Use the button to launch a cloudshell instance, preconfigured with the lab. Upon button click tutorial with interactive steps will appear on the right hand side.

 OPEN IN GOOGLE CLOUD SHELL




Ouvrir dans Cloud Shell

You are about to clone the repo:

 <https://github.com/spurin/diveintoansible-lab-gcp-cloudshell.git>

This repo is not officially maintained by Google and is considered untrusted by default.


The session will run the image:


 gcr.io/cloudshell-images/cloudshell

L'image est officiellement gérée par Google.

This session will run in an ephemeral directory and will be deleted on session end.

☒ Trust repo





ANNULER CONFIRMER


Cloud Shell Editor

EPHEMERAL

cloudshell x +

```
Welcome to Cloud Shell! Type "help" to get started.
To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]"
yrieville@cloudshell:~$ cloudshell open --repo_url "https://github.com/spurin/diveintoansible-lab-gcp-cloudshell.git" --page "shell" --tutorial "tutorial.md" --force_new_clone
2023/05/22 07:53:54 Cloning https://github.com/spurin/diveintoansible-lab-gcp-cloudshell.git into /home/yrieville/cloudshell_open/diveintoansible-lab-gcp-cloudshell
Cloning into '/home/yrieville/cloudshell_open/diveintoansible-lab-gcp-cloudshell'...
remote: Enumerating objects: 99, done.
remote: Counting objects: 100% (99/99), done.
remote: Compressing objects: 100% (97/97), done.
remote: Total 99 (delta 52), reused 9 (delta 2), pack-reused 0
Receiving objects: 100% (99/99), 61.12 KiB | 5.09 MiB/s, done.
Resolving deltas: 100% (52/52), done.
yrieville@cloudshell:~/cloudshell_open/diveintoansible-lab-gcp-cloudshell$
```

APPRENDRE
Tutoriel

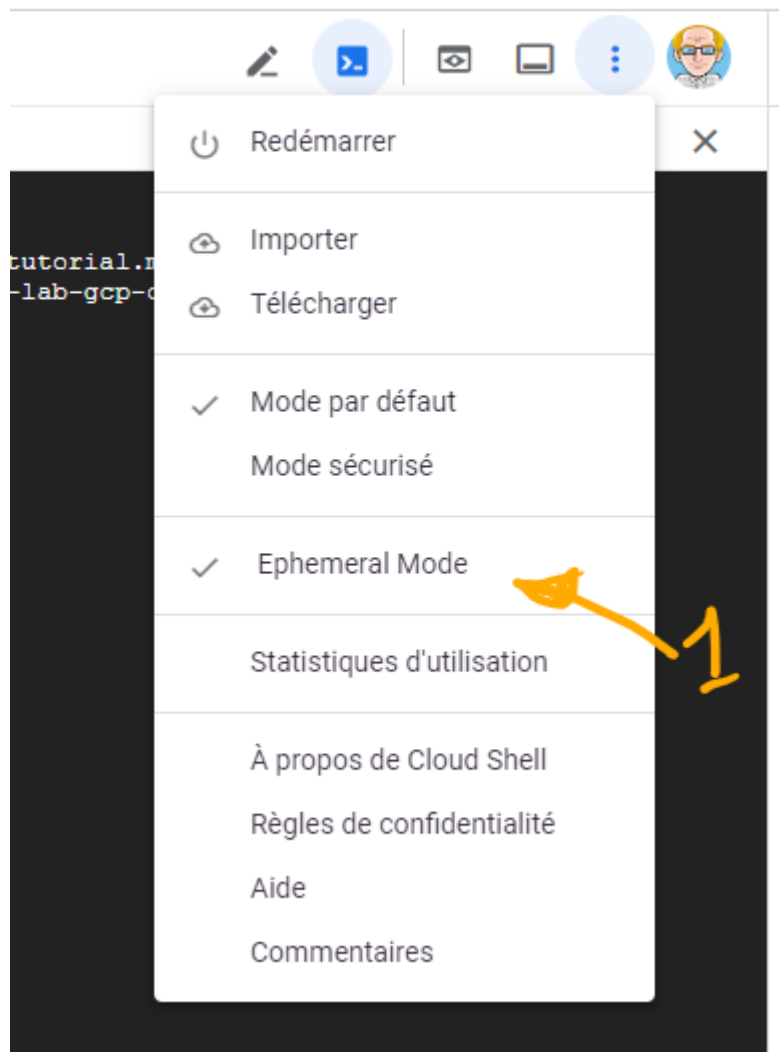


This tutorial provides you with a fully working Ansible lab, accessible in your browser.

Firstly, we'll clone the Dive Into Ansible lab. This is using a customised branch off the diveintoansible-lab repository that is A) preconfigured for use with Google cloudshell and B) has docker-compose preloaded in the bin directory (the default docker-compose on gcp cloudshell is too old). For convenience you can send this to the terminal using the convenient 'Copy to Cloud Shell' icon on the top right of the text box.



```
$ git clone -b cloudshell-gcp \
```

2. désactiver le mode "éphémère" pour conserver vos travaux entre deux sessions.



Disable Ephemeral Cloud Shell

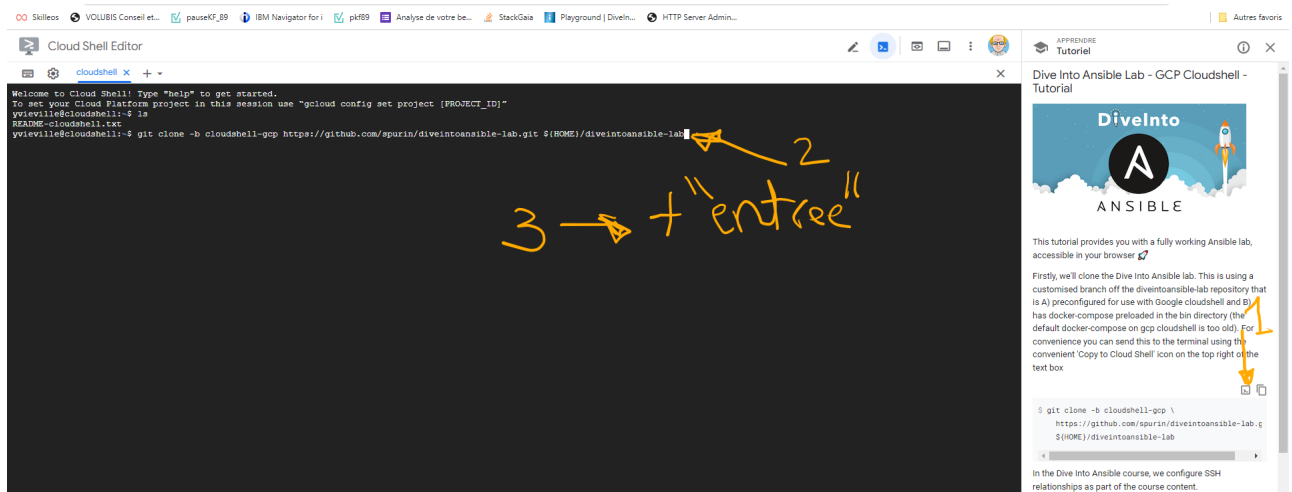
When you disable ephemeral mode, all files from this session will be lost. You'll return to the default Cloud Shell experience for future sessions where your changes persist between sessions in your \$HOME folder.

Before disabling ephemeral mode, you can download any relevant files via the  Download File option under the  More menu.

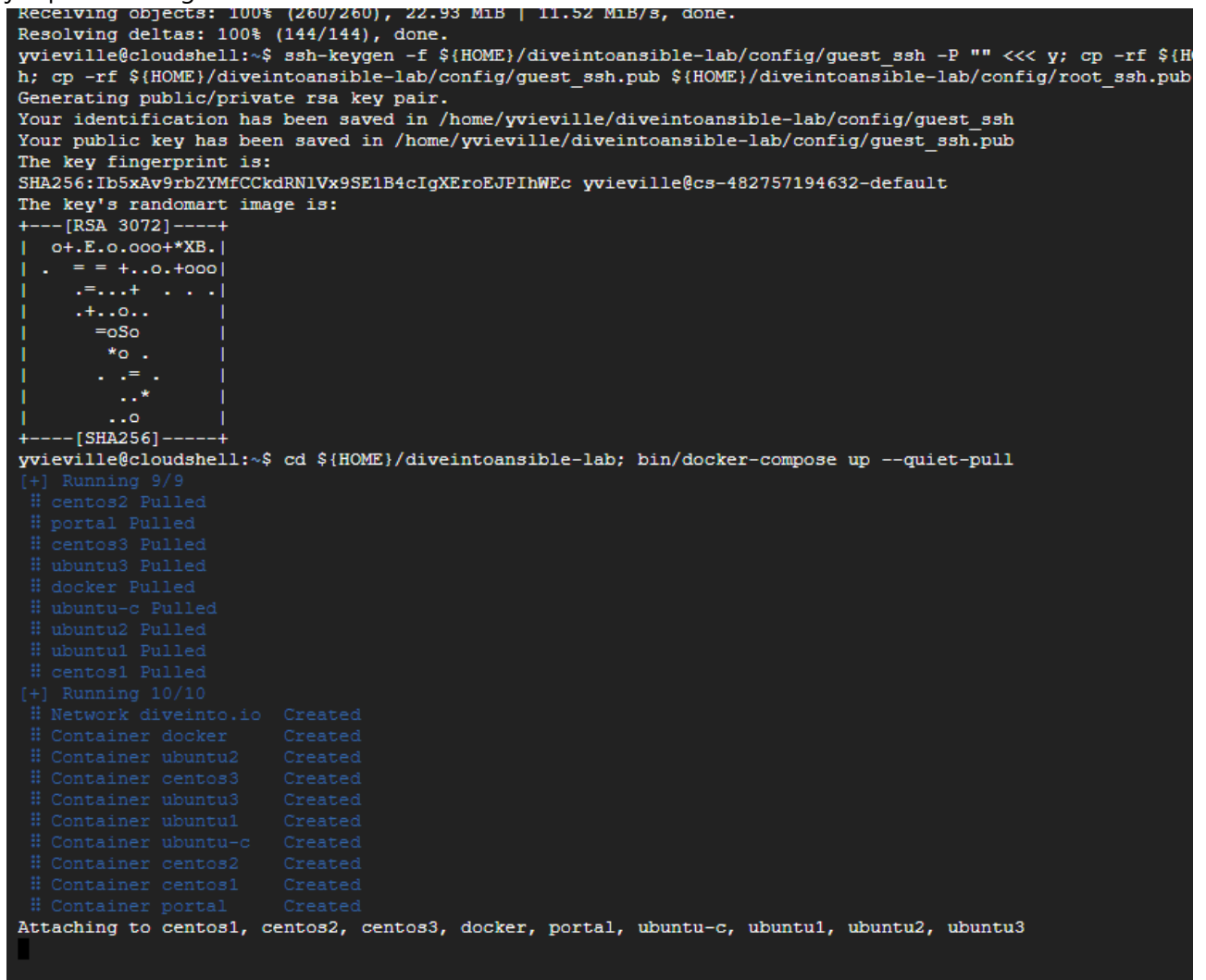
ANNULER

DÉSACTIVER

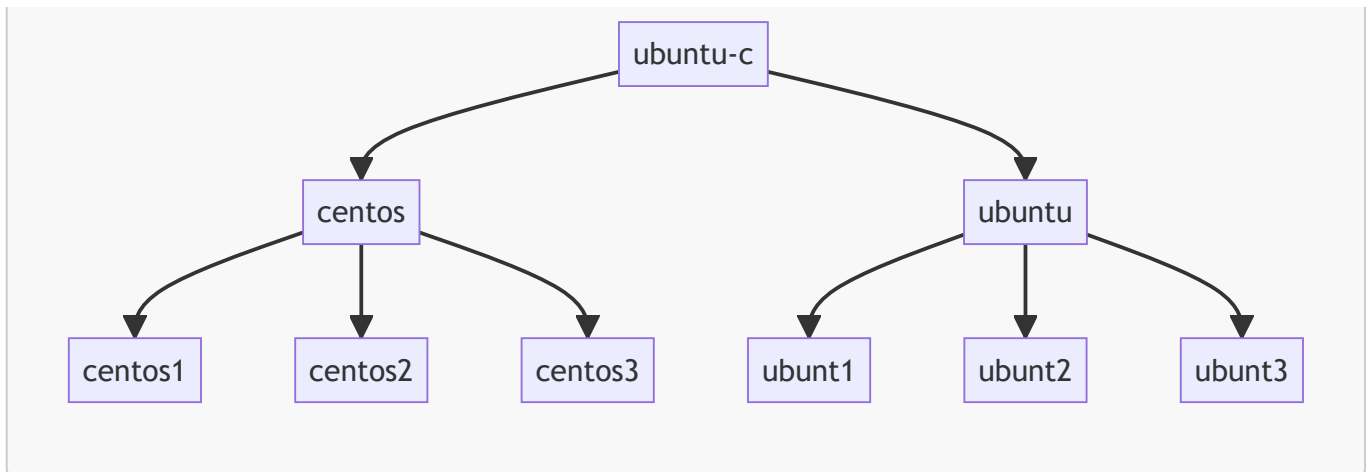
3. lancer les 3 scripts



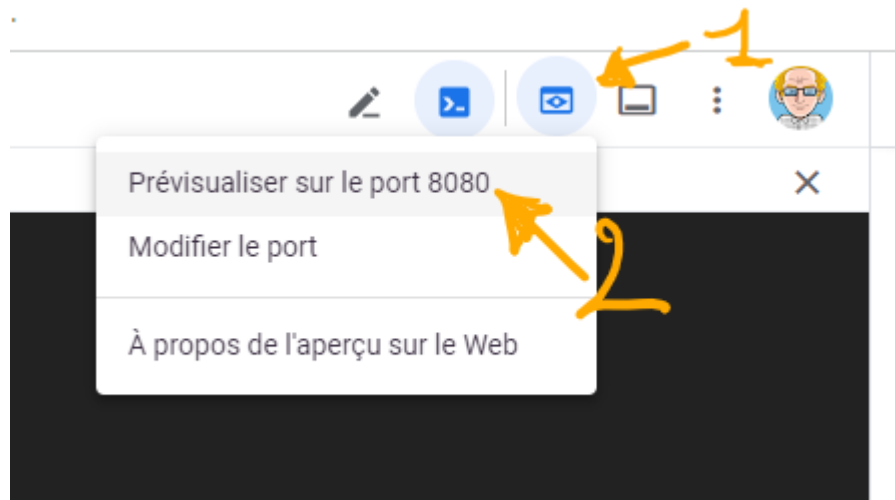
jusqu'au message de fin



Nous avons créé un environnement complet 7 machines sous linux. et les 7 machines "linux" sont lancées.



1. Ouvrir l'interface web



2. Ouvrir un shell sur le poste de contrôle (control node)

[ickGaia](#) [Playground | DiveIn...](#) [HTTP Server Admin...](#)

profil : ansible et mot de passe : password

```

ubuntu-c login: ansible
Password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.107+ x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ansible@ubuntu-c:~$

```

3. cloner le dépôt GIT "ansibleMelodie"

```
git clone https://github.com/novy400/ansibleMelodie.git
```

```

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ansible@ubuntu-c:~$ ls
ansible@ubuntu-c:~$ git clone https://github.com/novy400/ansibleMelodie.git
Cloning into 'ansibleMelodie'...
remote: Enumerating objects: 29, done.
remote: Counting objects: 100% (29/29), done.
remote: Compressing objects: 100% (20/20), done.
remote: Total 29 (delta 6), reused 26 (delta 3), pack-reused 0
Receiving objects: 100% (29/29), 37.22 KiB | 4.65 MiB/s, done.
Resolving deltas: 100% (6/6), done.
ansible@ubuntu-c:~$

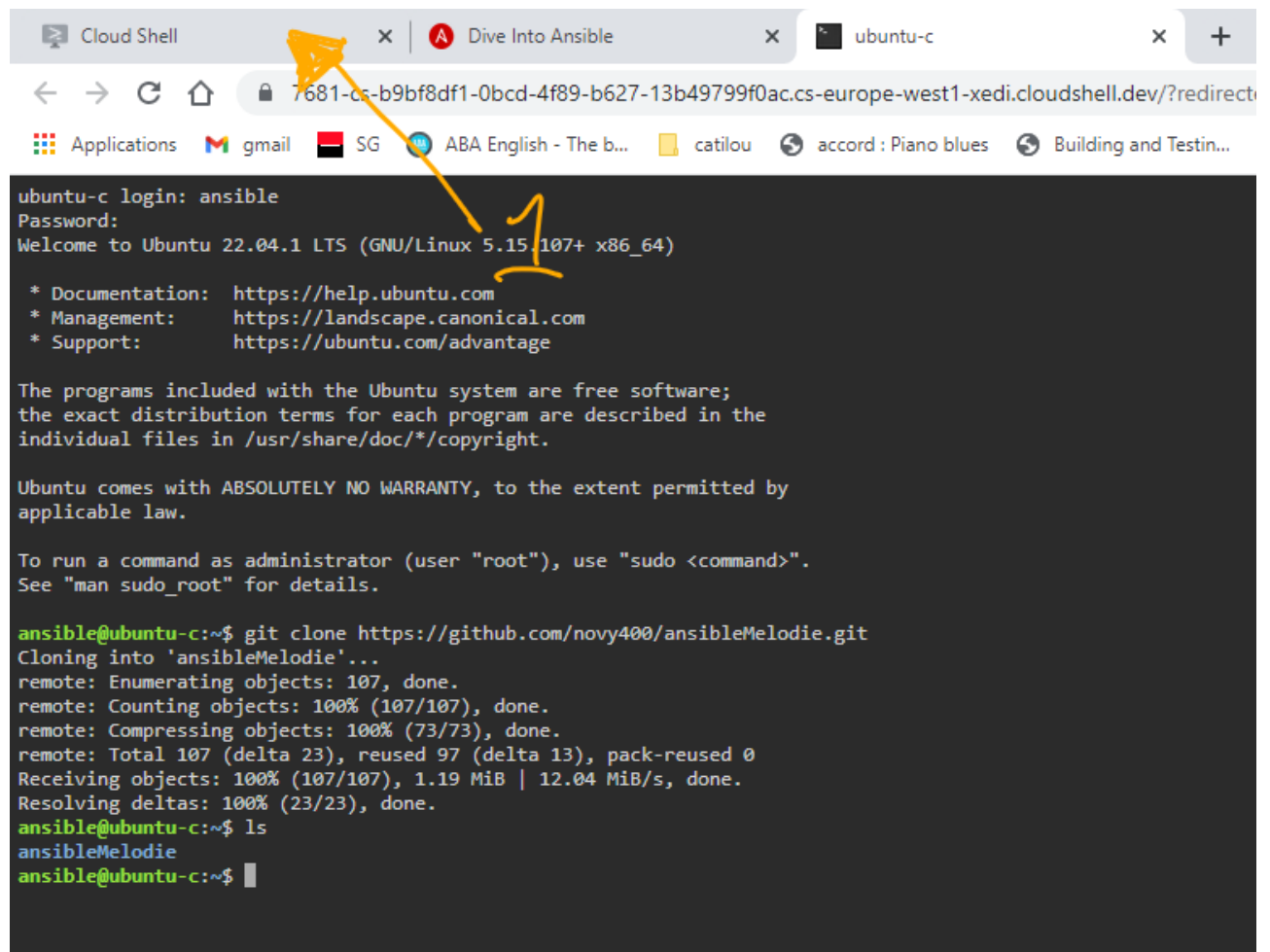
```

vous pouvez faire un copie/coller (Ctrl+C/ctrl+maj+V) mais cela rajoute des caractères à supprimer.

- pour verifier `ls`

Consultation d'un fichier

1. retourner le cloud shell DiveINTO et lancer l'éditeur



```
ubuntu-c login: ansible
Password:
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.107+ x86_64)

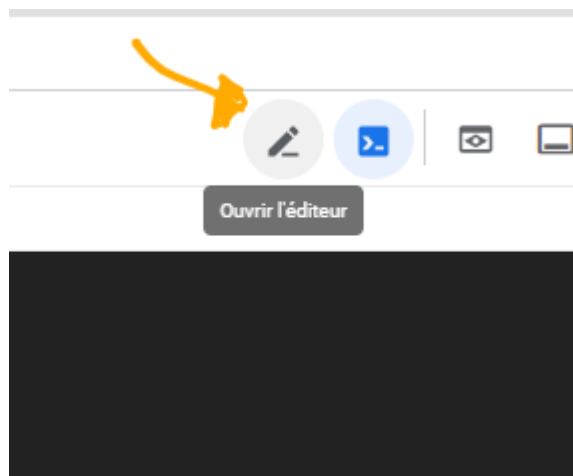
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

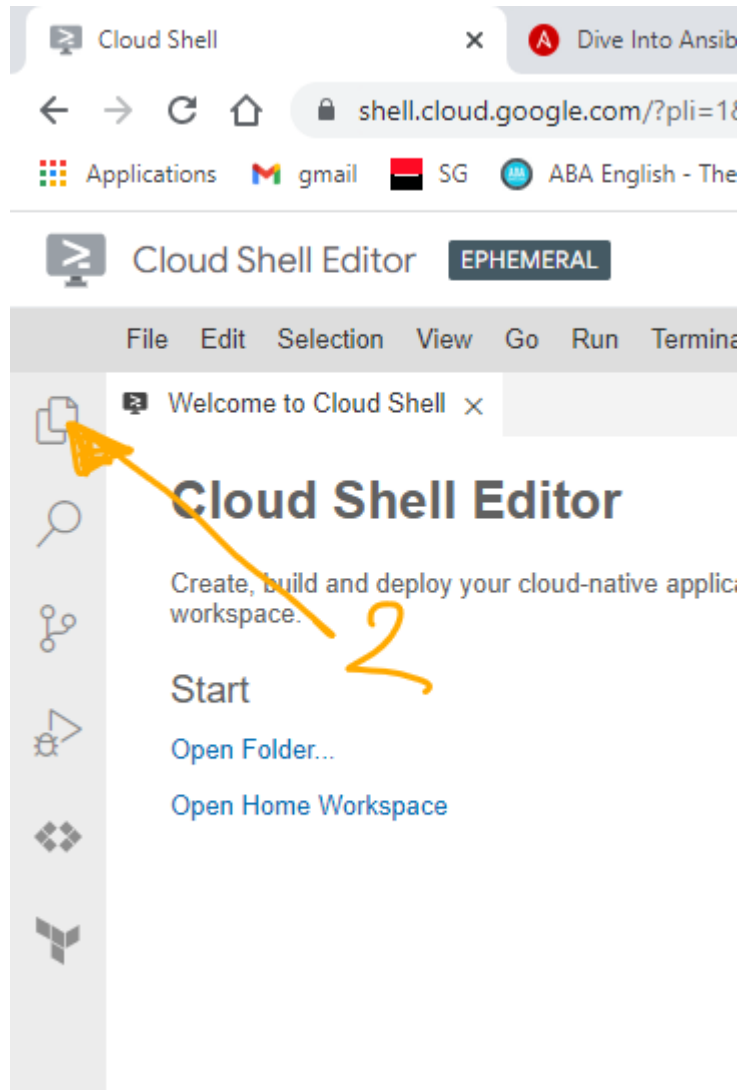
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

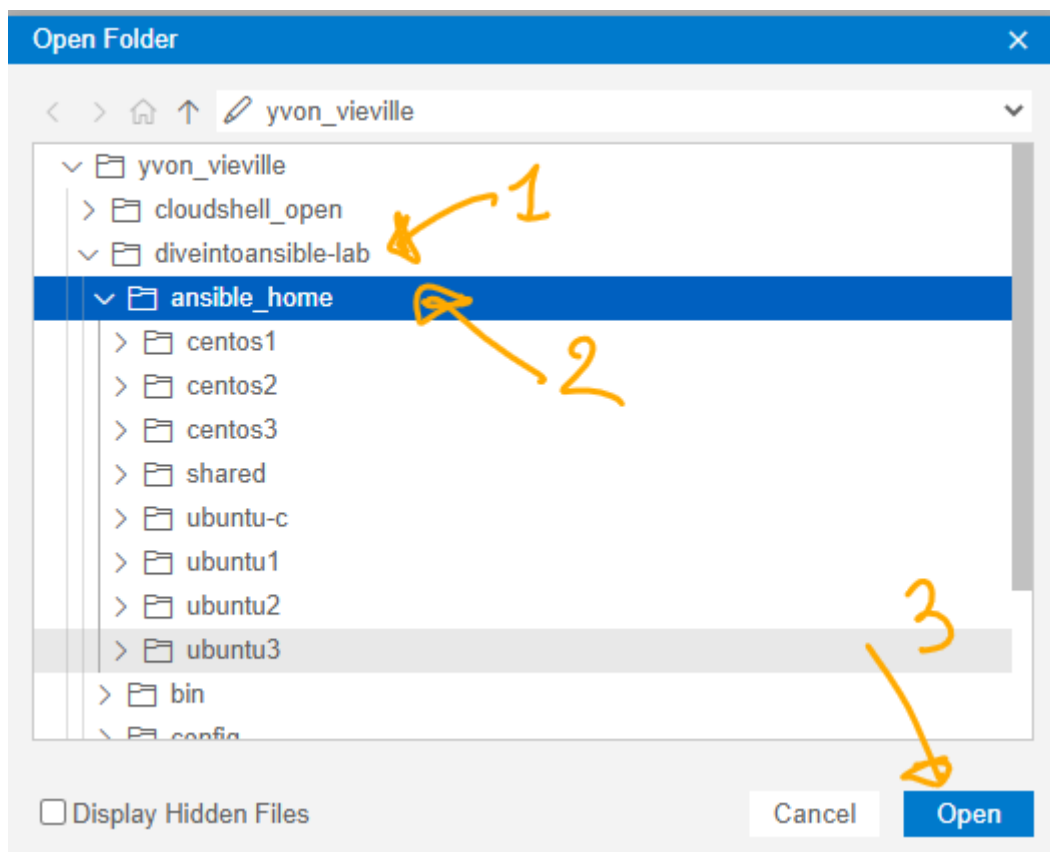
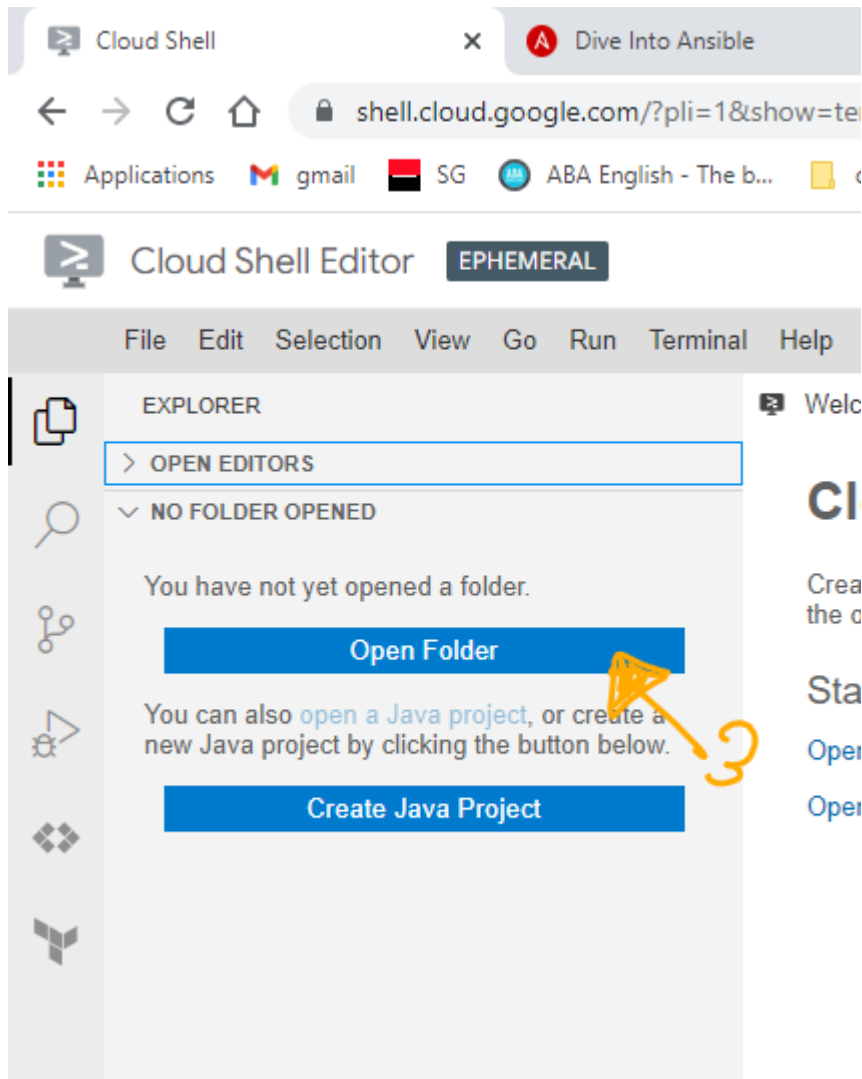
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

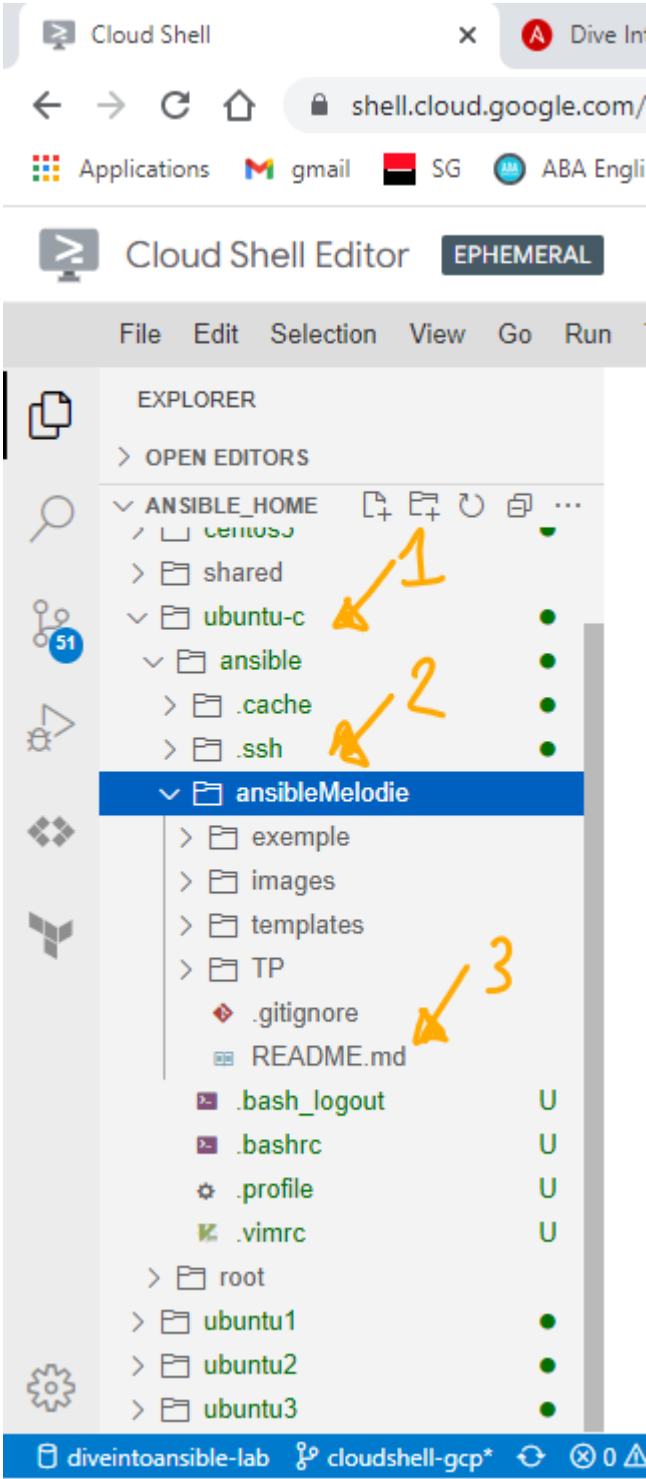
ansible@ubuntu-c:~$ git clone https://github.com/novy400/ansibleMelodie.git
Cloning into 'ansibleMelodie'...
remote: Enumerating objects: 107, done.
remote: Counting objects: 100% (107/107), done.
remote: Compressing objects: 100% (73/73), done.
remote: Total 107 (delta 23), reused 97 (delta 13), pack-reused 0
Receiving objects: 100% (107/107), 1.19 MiB | 12.04 MiB/s, done.
Resolving deltas: 100% (23/23), done.
ansible@ubuntu-c:~$ ls
ansibleMelodie
ansible@ubuntu-c:~$
```



1. ouvrir le fichier README.MD du noeud de contrôle ubuntu-c







Cloud Shell Editor Ephemeral

File Edit Selection View Go Run Terminal Help

EXPLORER

OPEN EDITORS

ANSIBLE_HOME

- centos3
- shared
- ubuntu-c
 - ansible
 - .cache
 - .ssh
 - ansibleMelodie
 - exemple
 - images
 - templates
 - TP
 - .gitignore
 - README.md
 - .bash_logout
 - .bashrc
 - .profile
 - .vimrc
 - root
 - ubuntu1
 - ubuntu2
 - ubuntu3

1 2 3 4

ubuntu-c > ansible > ansibleMelodie > README

Ansible Mélodie

Features

- [] test

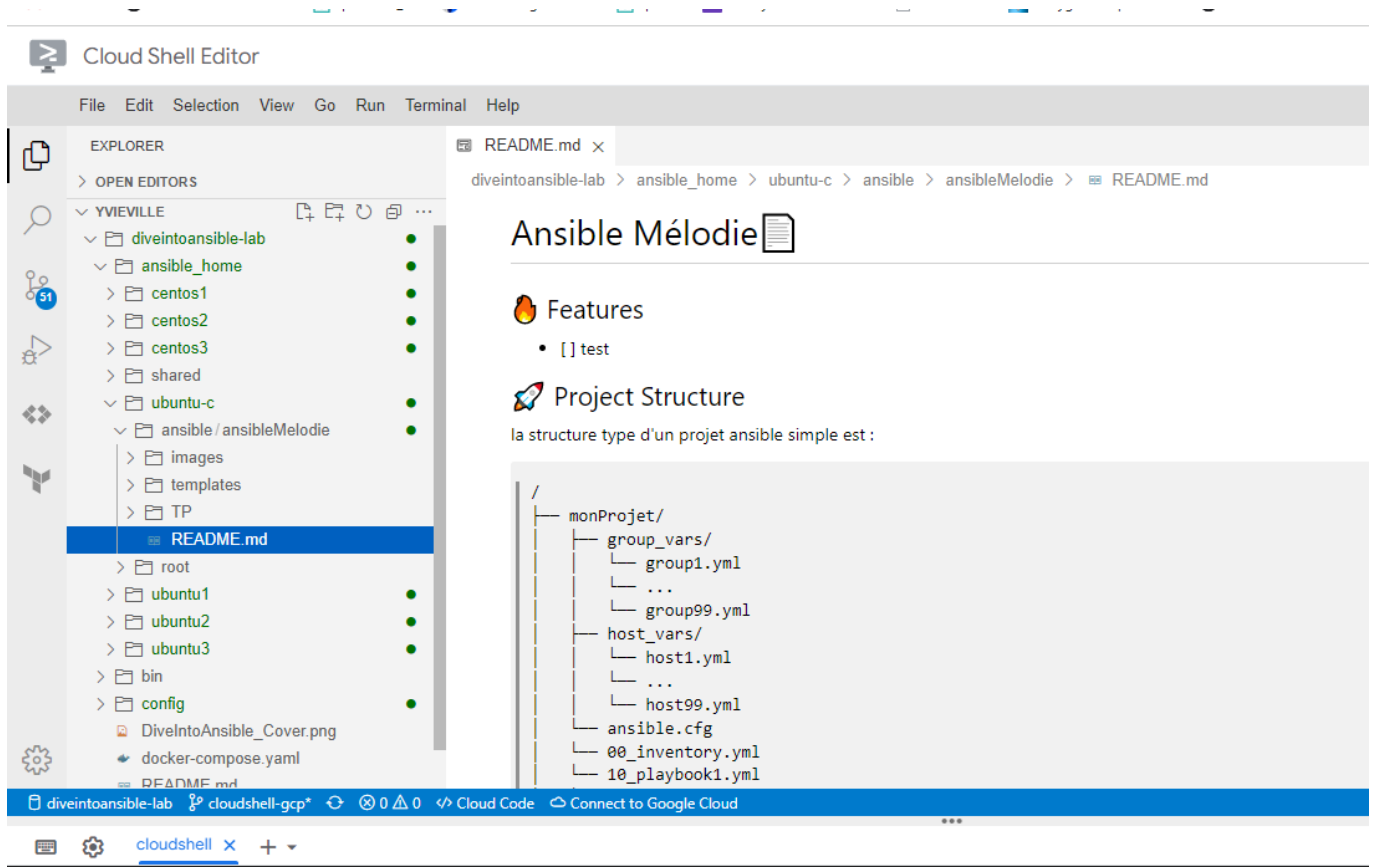
Project Structure

la structure type d'un projet ansible simple est :

```

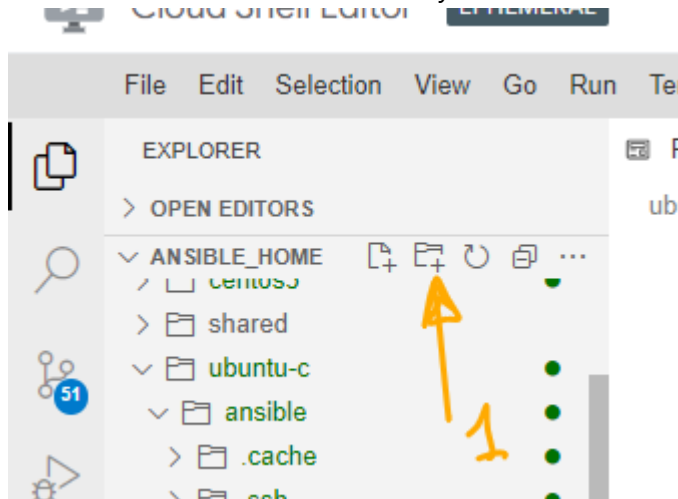
/
├── monProjet/
│   ├── group_vars/
│   │   ├── group1.yml
│   │   ├── ...
│   │   └── group99.yml
│   ├── host_vars/
│   │   ├── host1.yml
│   │   ├── ...
│   │   └── host99.yml
│   ├── ansible.cfg
│   ├── 00_inventory.yml
│   └── 10_playbook1.yml
  
```

/home/<votreCompte>/diveintoansible-lab/ansible_home/ubuntu-c/ansible/ansibleMelodie/README.md

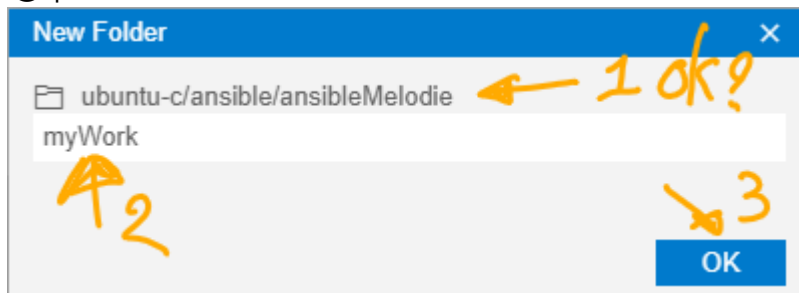


Création et édition d'un fichier

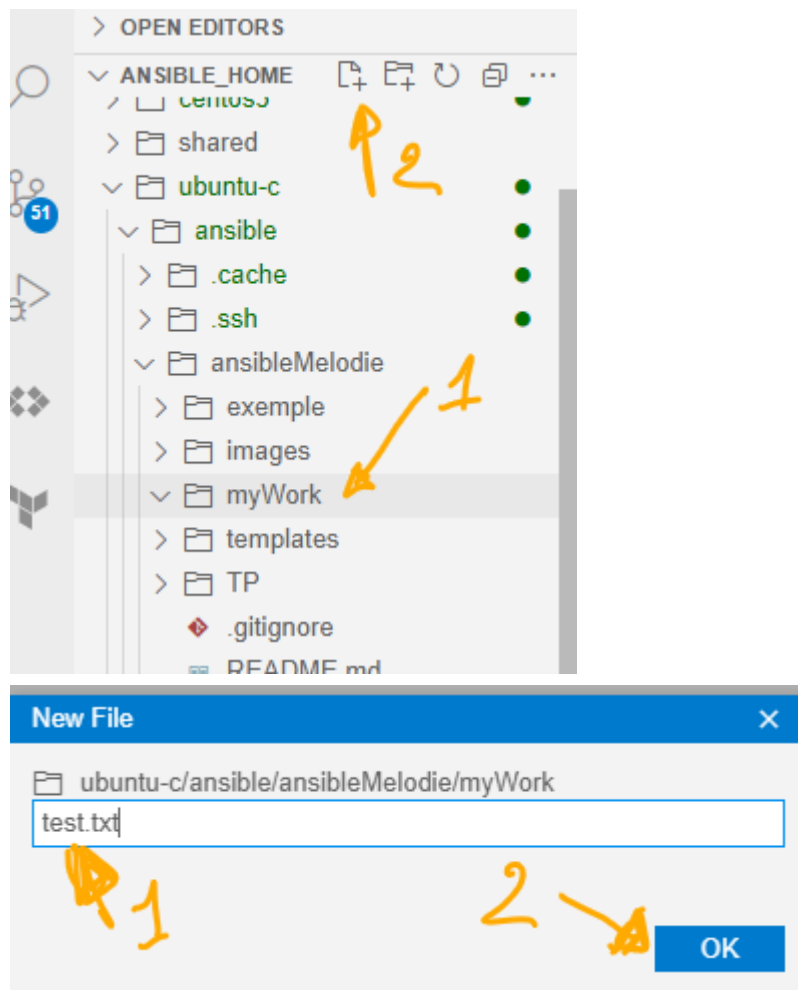
1. création d'un dossier de travail <myWork>



☞ penser à vérifier le dossier !

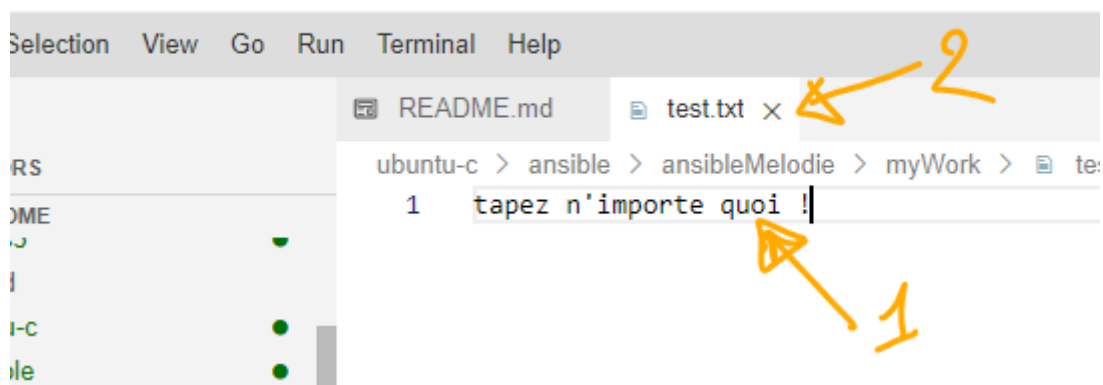


1. Création du fichier <test.txt>



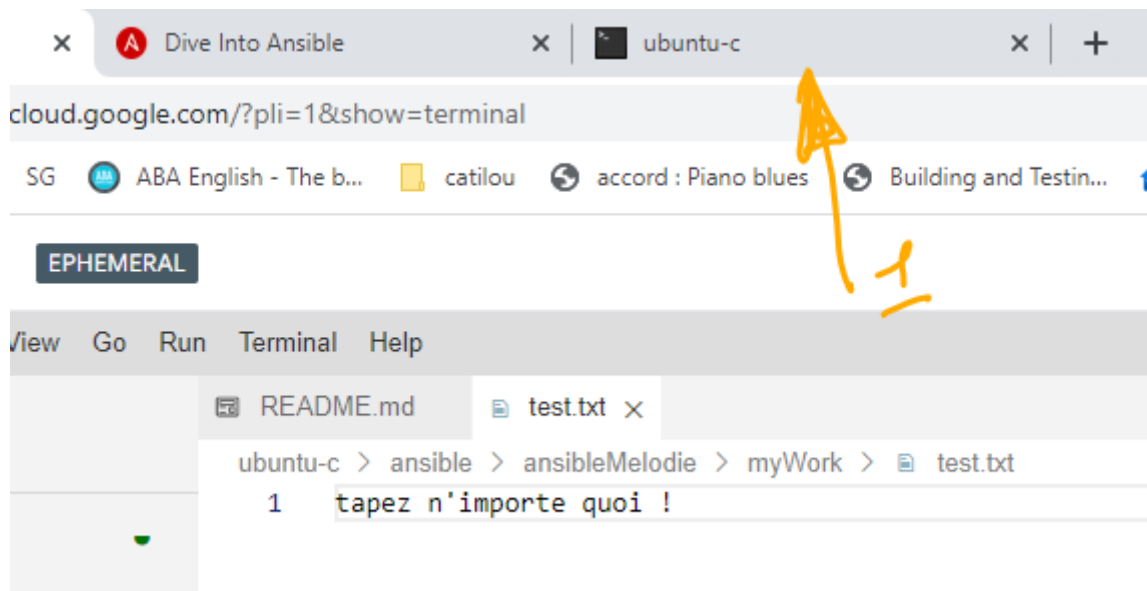
- 😊 libre cours à votre inspiration !

all Editor **EPHEMERAL**



- Sauvegarder via la touche CTRL-S.
- contrôle dans ubuntu-c

1. Ouvrez la console d'ubuntu-c



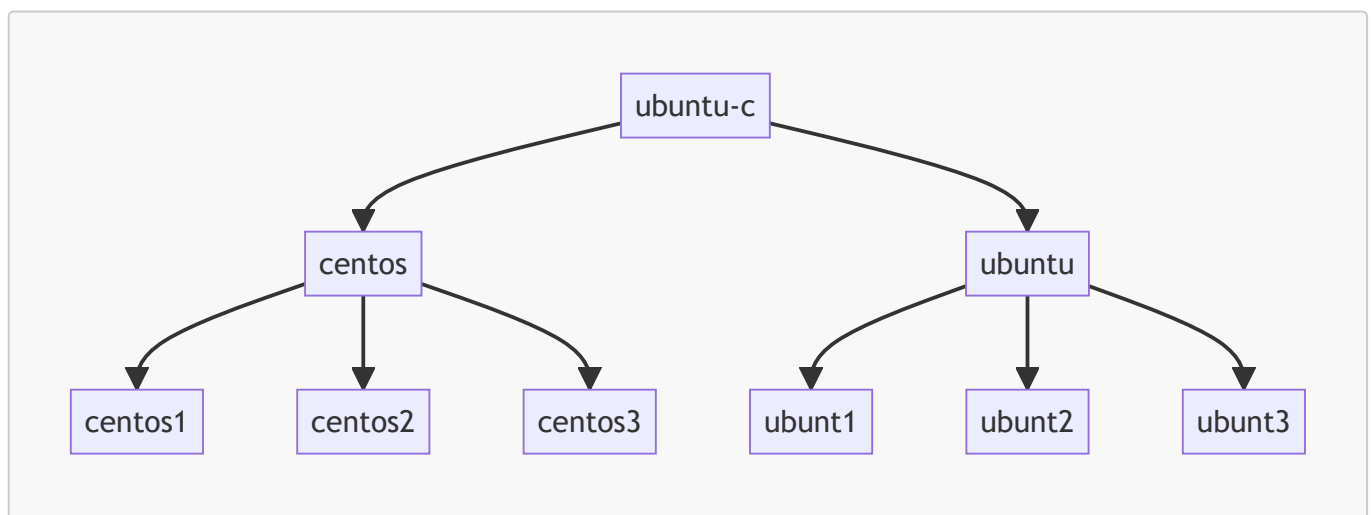
2. tapez dans le shell

```
cat ~/ansibleMelodie/myWork/test.txt
```

```
ansibleMelodie
ansible@ubuntu-c:~$ ls
ansibleMelodie
ansible@ubuntu-c:~$ cat ./myWork/test.txt
cat: ./myWork/test.txt: No such file or directory
ansible@ubuntu-c:~$ cat ~/ansibleMelodie/myWork/test.txt
tapez n'importe quoi !ansible@ubuntu-c:~$ ^C
ansible@ubuntu-c:~$
```

Découvrons notre environnement

Nous avons créé un environnement complet 7 machines sous linux.



la machine **ubuntu-c** sera notre noeud de contrôle.

Nous travaillerons sur celui-ci pour exécuter des tâches sur les autres machines via ansible.

Ansible est installé.

Et depuis la console d'ubuntu-c nous pouvons accéder aux autres machines via ssh en utilisant une clé (sans saisir le profil et le mot de passe)

Testons une connexion SSH

1. se connecter à centos1
 - tapez dans le shell d'ubuntu-c
`ssh centos1`
 - répondez au message par yes

```
ssh: Could not resolve hostname centos: Name or service not known
ansible@ubuntu-c:~$ ssh centos1
The authenticity of host 'centos1 (172.19.0.4)' can't be established.
ED25519 key fingerprint is SHA256:o0/SqFd3nZFiWf/wvAoCMh2UIk8ZEf8p3yyOLb952s8.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'centos1' (ED25519) to the list of known hosts.
[ansible@centos1 ~]$
```

- vous êtes connecté sur Centos1 !
2. se déconnecter de centos1
 - tapez dans le shell d'ubuntu-c
`exit`
 - vous êtes de retour sur ubuntu-c !

```
[ansible@centos1 ~]$ ls
[ansible@centos1 ~]$ exit
logout
Connection to centos1 closed.
ansible@ubuntu-c:~$
```

Vérifions la présence ansible sur ubuntu-c

`ansible --version`

```
Connection to centos1 closed.
ansible@ubuntu-c:~$ ansible --version
ansible [core 2.14.2]
  config file = None
  configured module search path = ['/home/ansible/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/local/lib/python3.10/dist-packages/ansible
  executable location = /usr/local/bin/ansible
  python version = 3.10.6 (main, Nov 14 2022, 16:10:14) [GCC 11.3.0] (/usr/bin/python3)
  jinja version = 3.1.2
  libyaml = True
ansible@ubuntu-c:~$
```

Fermons l'environnement

⚠ Nous avons des quotas d'utilisation (50 heure/semaine je crois) Il est donc important de bien fermer sa session le soir par exemple....

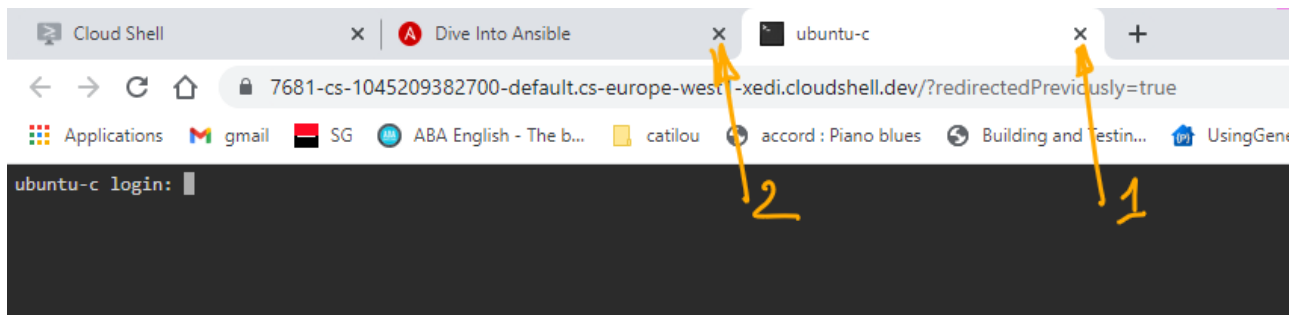
1. fermer les consoles linux

```

This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'centos1' (ED25519) to the list of known hosts.
[ansible@centos1 ~]$ ls
[ansible@centos1 ~]$ exit
logout
Connection to centos1 closed.
ansible@ubuntu-c:~$ ssh centos1
Last login: Mon May 22 08:49:30 2023 from 172.19.0.9
[ansible@centos1 ~]$ exit
logout
Connection to centos1 closed.
ansible@ubuntu-c:~$ exit

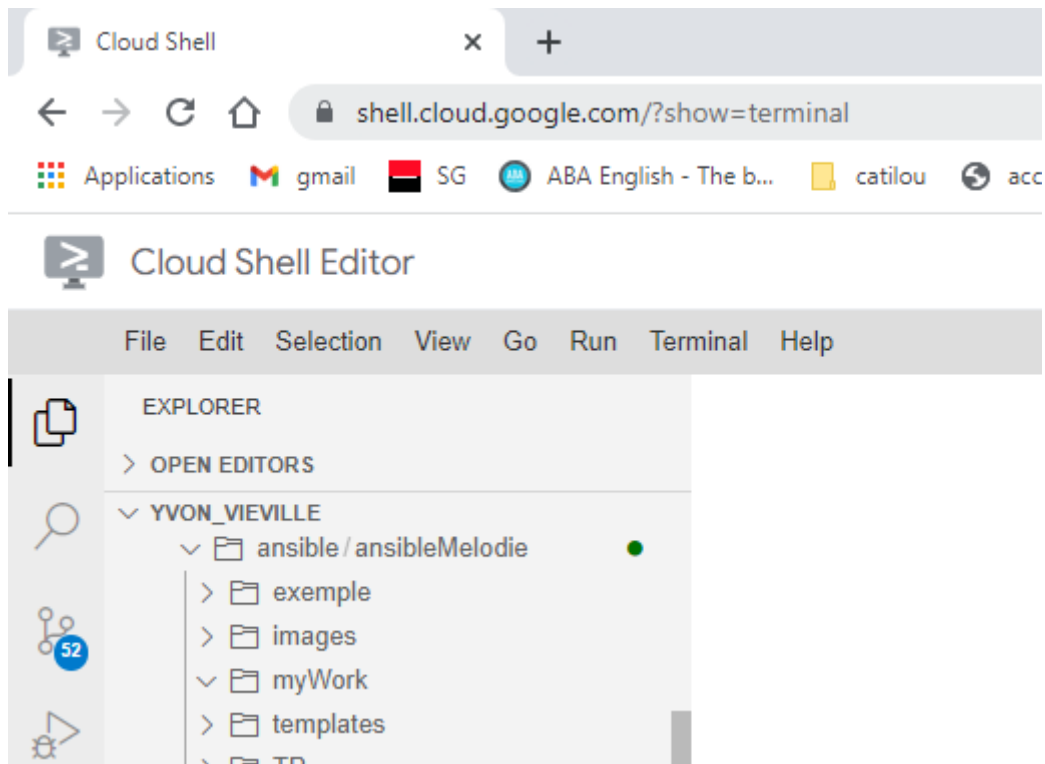
```

2. fermer les fenêtres du lab

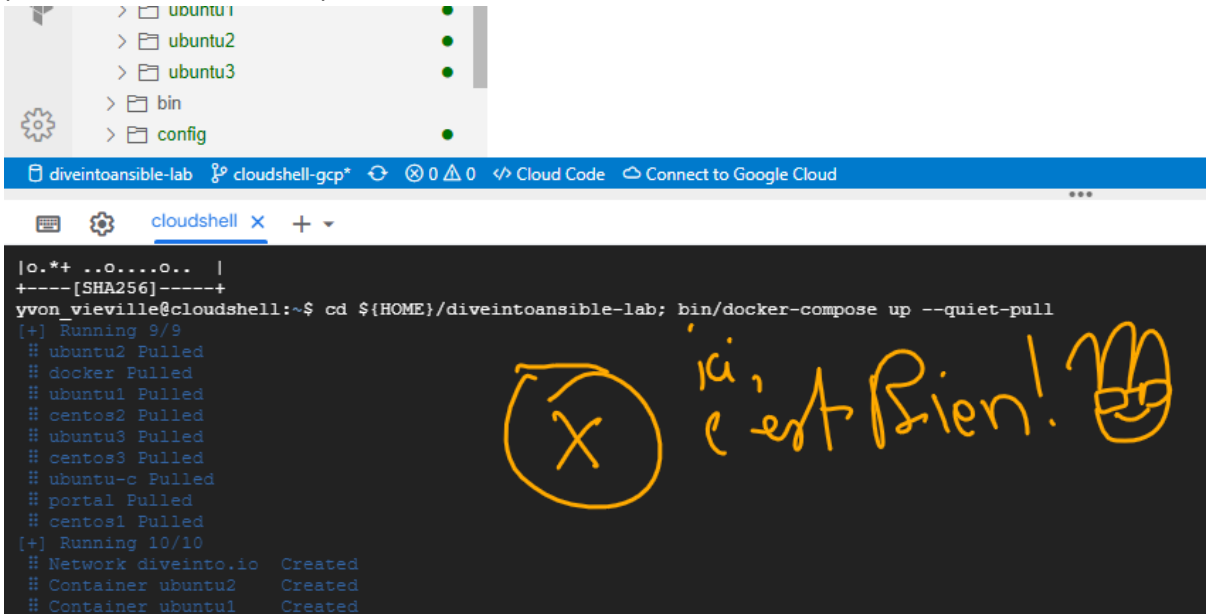


3. arrêter les machines (docker) via la touche CTRL-C dans le cloud shell

- o ouvrez le cloud shell



- placer dans le shell en cliquant dans la zone noire du shell

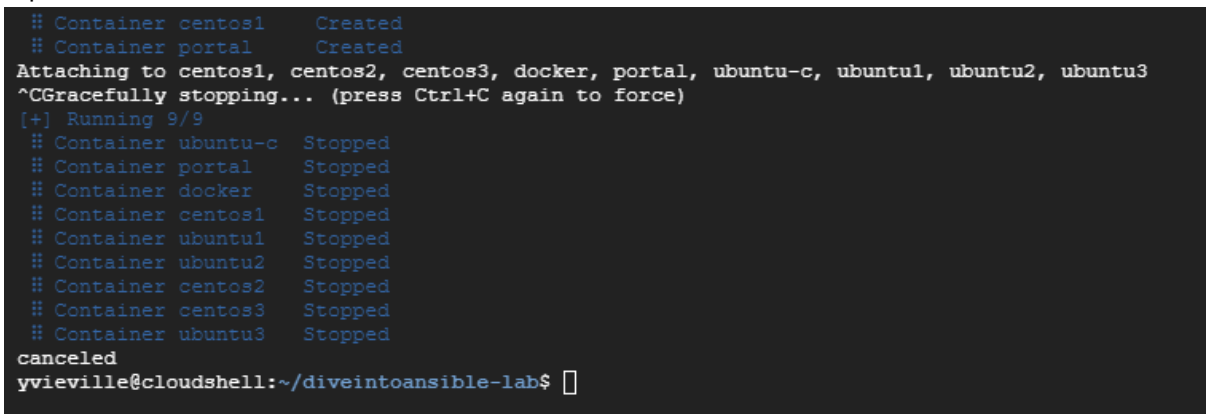


The screenshot shows a Cloud Shell interface with a file explorer on the left listing folders: ubuntu1, ubuntu2, ubuntu3, bin, and config. The terminal output shows the command `bin/docker-compose up --quiet-pull` being executed. The output indicates that several containers (ubuntu2, docker, ubuntu1, centos2, ubuntu3, centos3, ubuntu-c, portal, centos1) were pulled and then created. A handwritten yellow note with a circled 'X' and the text 'ici, c'est Bien! M' is overlaid on the terminal output.

```

|o.*+ ..o....o.. |
+-----[SHA256]-----+
yvonne_vieville@cloudshell:~$ cd ${HOME}/diveintoansible-lab; bin/docker-compose up --quiet-pull
[+] Running 9/9
# ubuntu2 Pulled
# docker Pulled
# ubuntu1 Pulled
# centos2 Pulled
# ubuntu3 Pulled
# centos3 Pulled
# ubuntu-c Pulled
# portal Pulled
# centos1 Pulled
[+] Running 10/10
# Network diveinto.io Created
# Container ubuntu2 Created
# Container ubuntu1 Created
  
```

- tapez sur les touches CTRL-C

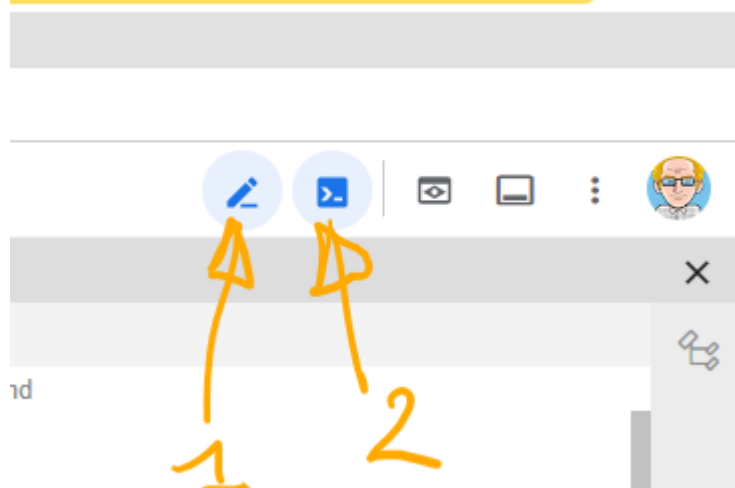


The screenshot shows the terminal output after pressing CTRL-C. It displays the message 'Attaching to centos1, centos2, centos3, docker, portal, ubuntu-c, ubuntu1, ubuntu2, ubuntu3' followed by '^CGracefully stopping... (press Ctrl+C again to force)'. The output then shows the status of the containers as 'Stopped'. The terminal ends with the prompt `yvonne_vieville@cloudshell:~/diveintoansible-lab$`.

```

# Container centos1 Created
# Container portal Created
Attaching to centos1, centos2, centos3, docker, portal, ubuntu-c, ubuntu1, ubuntu2, ubuntu3
^CGracefully stopping... (press Ctrl+C again to force)
[+] Running 9/9
# Container ubuntu-c Stopped
# Container portal Stopped
# Container docker Stopped
# Container centos1 Stopped
# Container ubuntu1 Stopped
# Container ubuntu2 Stopped
# Container centos2 Stopped
# Container centos3 Stopped
# Container ubuntu3 Stopped
canceled
yvonne_vieville@cloudshell:~/diveintoansible-lab$
  
```

4. puis fermer l'éditeur et le terminal



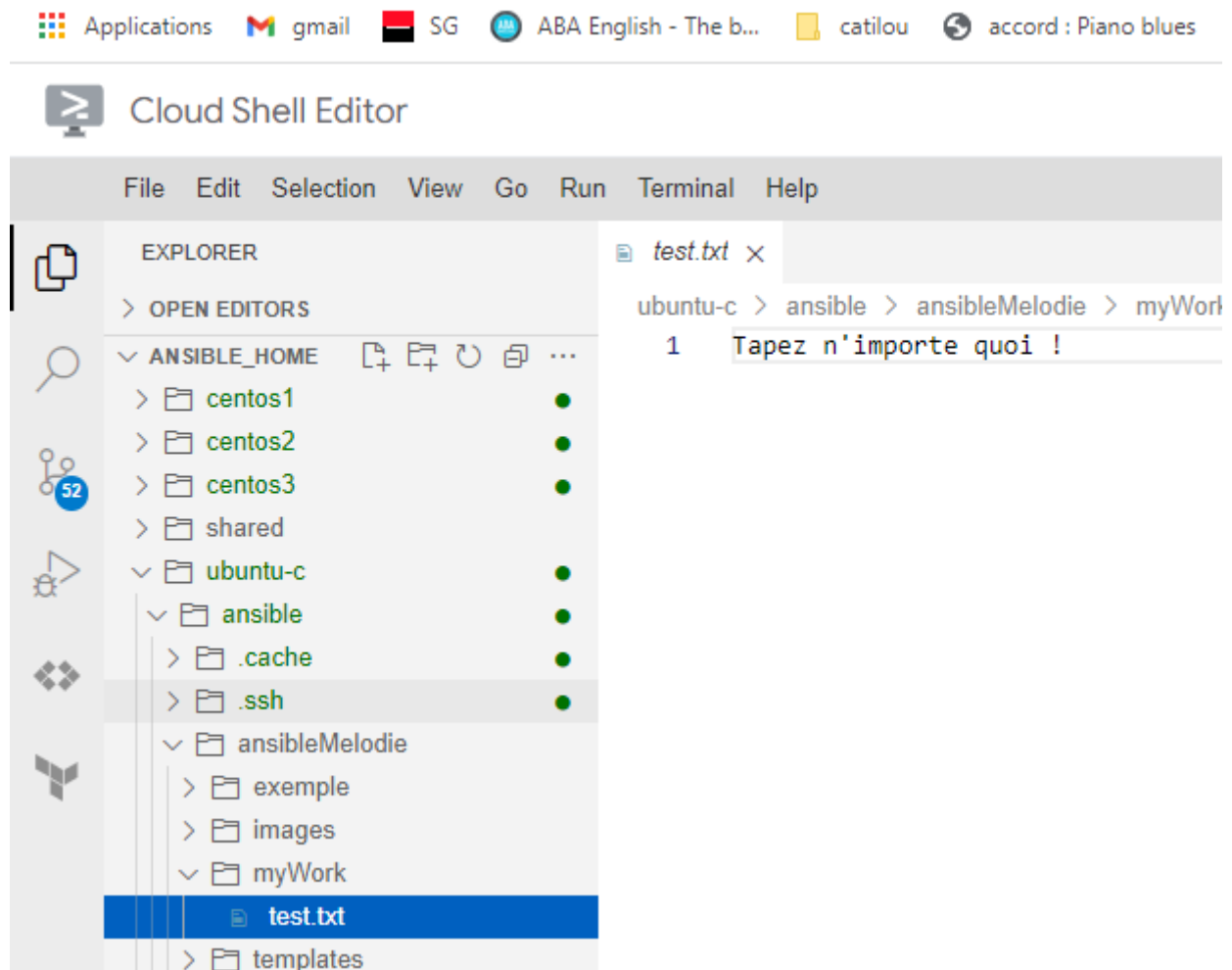


reprendre le travail en rouvrant une session

1. [cloud shell](#)
2. relancer le lab
 - tapez la commande suivante dans le terminal

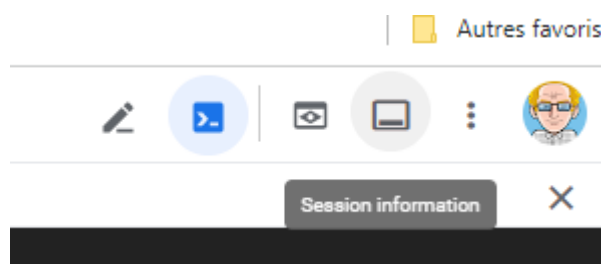
```
cd ${HOME}/diveintoansible-lab; bin/docker-compose up --quiet-pull
```

3. rouvrez notre fichier test.txt



Ouf il est bien là !

voir son quota d'utilisation



Quota Cloud Shell

Cloud Shell comporte également des limites d'utilisation hebdomadaires. Si vous atteignez ces limites, vous devrez attendre avant de pouvoir réutiliser Cloud Shell.

1 sur 50 heures utilisées

Votre quota sera réinitialisé le mai 29, 2023, 10:01 AM

FERMER

Conclusion et feed-back

Correction

    Idées

-