Install ansible

- Create a new user on control machine and new user on host 1
- Make sure you can ssh into host 1 (using password)
- Generate SSH key pair on control machine
- Copy the public key to host 1
- Make sure you can ssh into host 1 (using prv/pub)

```
root@ip-10-2-0-220:~# ansible --version
ansible 2.10.8
  config file = None
  configured module search path = ['/root/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.10.6 (main, Mar 10 2023, 10:55:28) [GCC 11.3.0]
root@ip-10-2-0-220:~#
```

```
root@ip-10-2-0-220:~# ssh -i ansible.pem ubuntu@44.195.40.226
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)

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

  System information as of Thu Sep 14 15:41:18 UTC 2023

  System load:  0.0               Processes:             96
  Usage of /:   20.5% of 7.57GB   Users logged in:       0
  Memory usage: 24%               IPv4 address for eth0: 10.2.0.67
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


The list of available updates is more than a week old.
To check for new updates run: sudo apt update


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.

ubuntu@ip-10-2-0-67:~$
```

Create the inventory file

 Put the IP of host 1 in the inventory file

 Use the inventory file path in your ad-hoc command instead of using

the IP hard-coded

 Example:

ansible all -i inventory --private-key ~/.ssh/devops -u ubuntu -m ping

```
root@ip-10-2-0-220:~/lab1# ansible all -i inventory --private-key /root/ansible.pem -u ubuntu -m ping
44.195.40.226 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
root@ip-10-2-0-220:~/lab1#
```

- Create the configuration file
- Insert some values in the configuration file
- Run the minimized ad-hoc command
- Example: ansible all -m ping

```
[defaults]
inventory = ./inventory
private_key_file = /root/ansible.pem
remote_user = ubuntu
~
~
~
~
~
```

```
root@ip-10-2-0-220:~/lab1# vim ansible.cfg
root@ip-10-2-0-220:~/lab1# ansible all -m ping
44.195.40.226 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
root@ip-10-2-0-220:~/lab1#
```

Insert the correct values in the configuration file

 Example: ansible all -m command -a "whoami"

 What is the output of the command ?

```
[defaults]
inventory = ./inventory
private_key_file = /root/ansible.pem
remote_user = ubuntu

[privilege escalation]
become = true
~
~
~
~
~
~
```

```
root@ip-10-2-0-220:~/lab1# vim ansible.cfg
root@ip-10-2-0-220:~/lab1# ansible all -m command -a "whoami"
44.195.40.226 | CHANGED | rc=0 >>
root
root@ip-10-2-0-220:~/lab1#
```