Installation of ansible tower on AWS

What is Ansible Tower ?

Ansible Tower (formerly 'AWX') is a web-based solution that makes Ansible even more easy to use for IT teams of all kinds. It's designed to be the hub for all of your automation tasks.

- Ansible tower is ansible at a more enterprise level

Prerequisites to install ansible tower

The following operating systems support Ansible Tower

RedHat Enterprise Linux 6 64-bit

RedHat Enterprise Linux 7 64-bit

CentOS 6 64-bit

CentOS 7 64-bit

Ubuntu 12.04 LTS 64-bit

Ubuntu 14.04 LTS 64-bit

Ubuntu 16.04 LTS 64 bit

You should have the latest stable release of Ansible.

It required a 64-bit support kernel, runtime, and 20 GB hard disk.

Minimum 2 GB RAM (4 GB RAM recommended) is required.

Minimum 2 GB RAM is recommended for Vagrant trial installations

And 4 GB RAM is recommended /100 forks

AWS need the m4.large instance type

Step-1

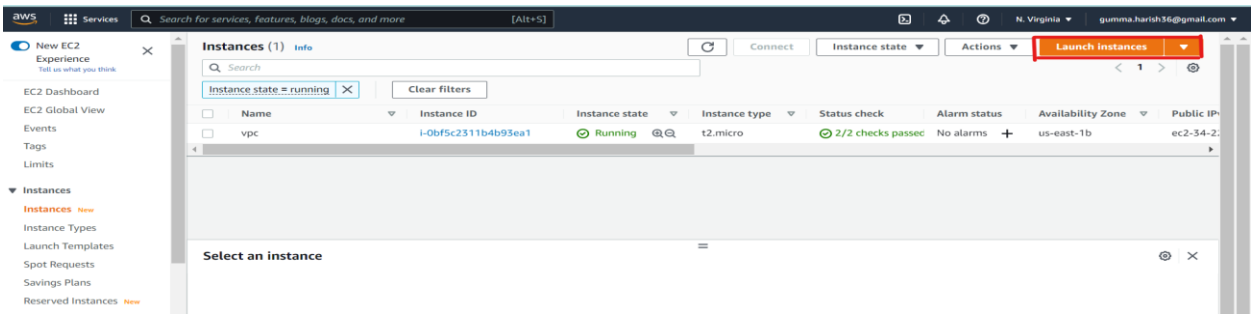
Update system and add EPEL repository

1.update package manager

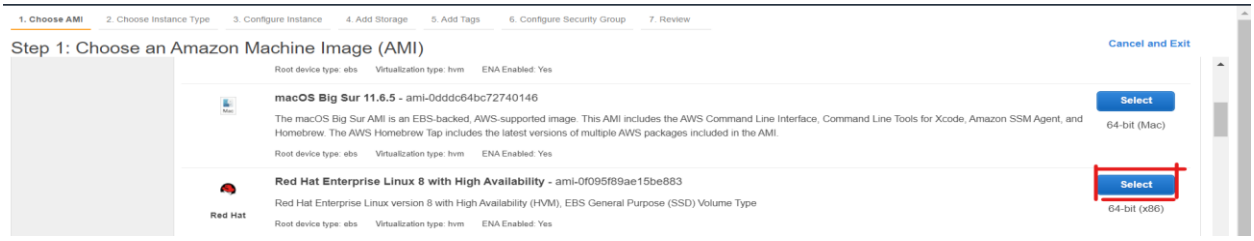
$ sudo yum -y update

Install EPEL Repository on RHEL

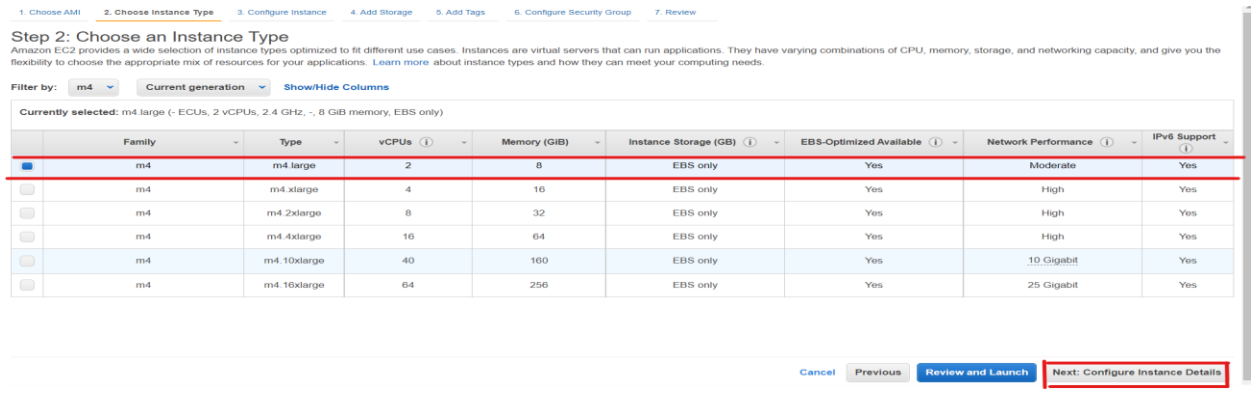
Step-2 : Launch the instance



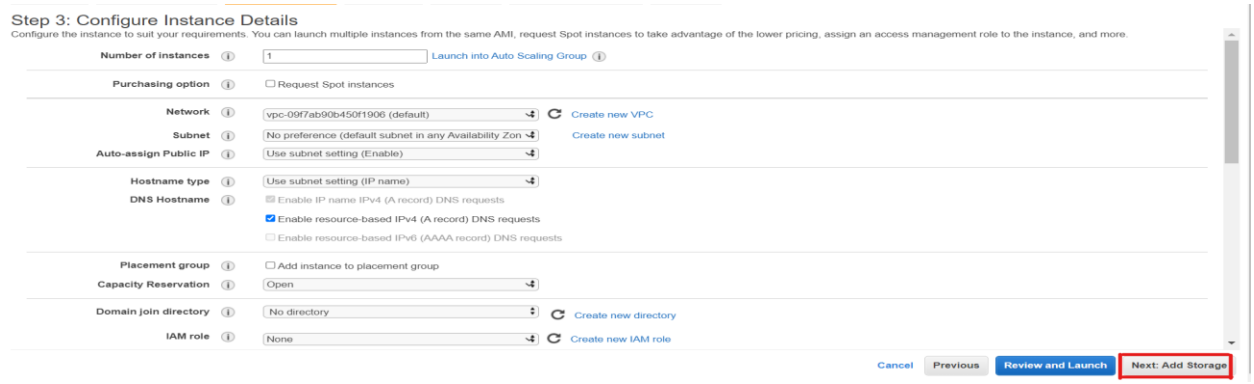
Choose an Amazon machine image



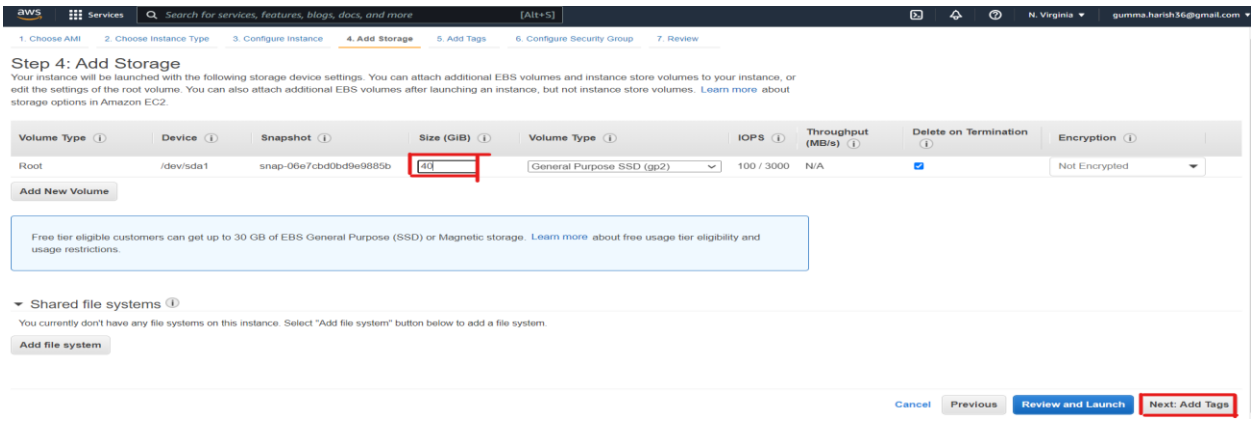
Choose an instance type



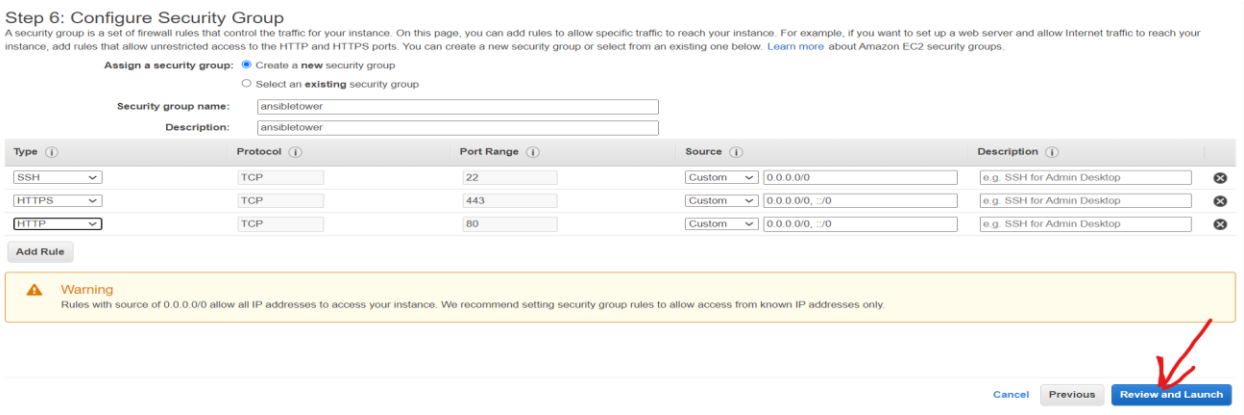
Configure instance details



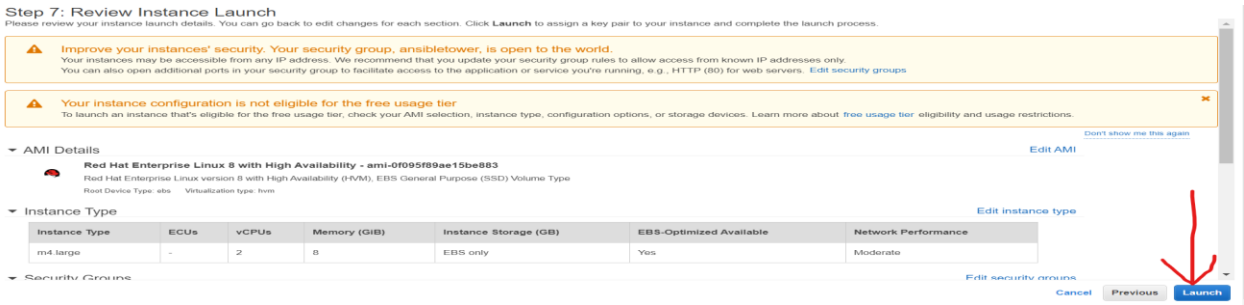
Add Storage (for ansible tower we need the minimum requirement 20GB .but take little bit extra GB)



Configure security Group (create a new security group)

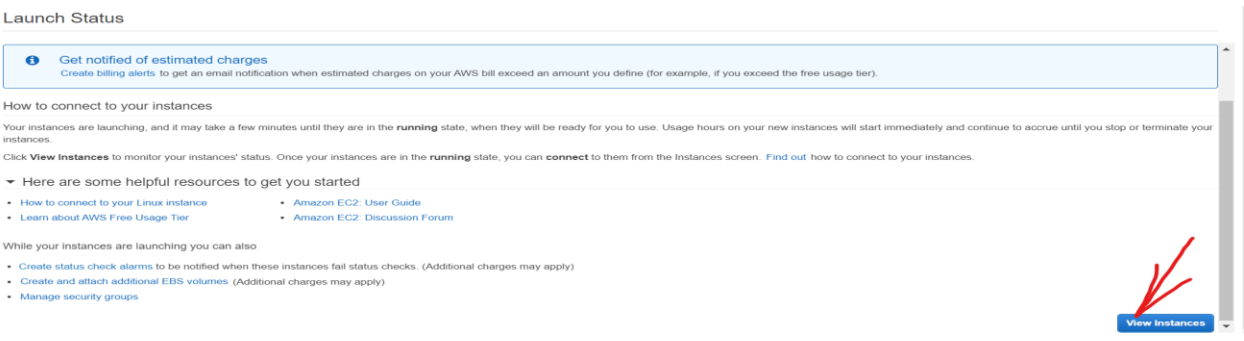


Review Instance launch

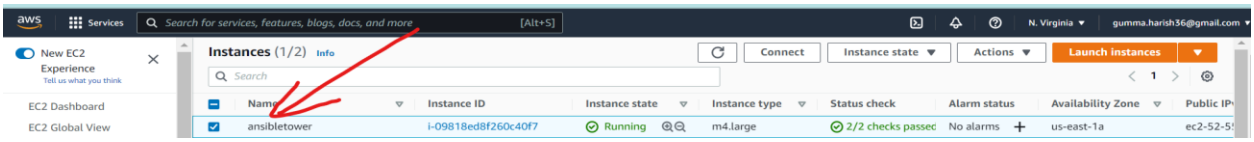


Create a new key pair and download the key pair and launch the instance

Launch status



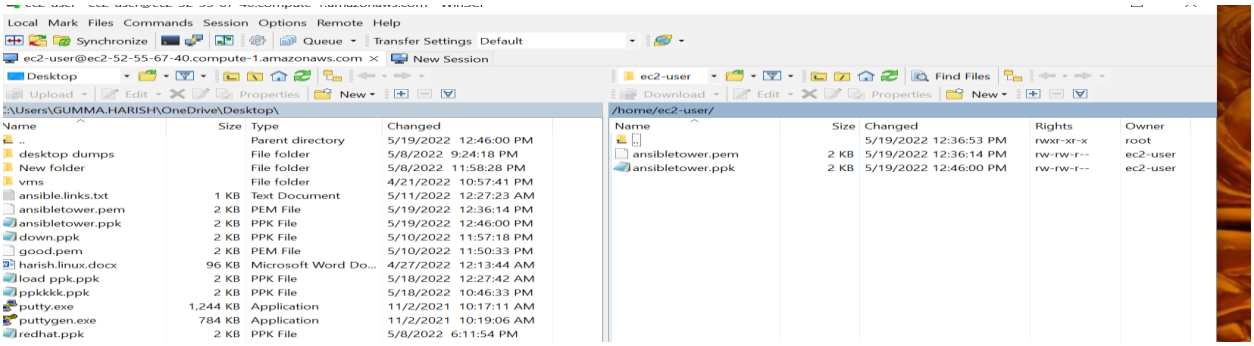
Now instance has created



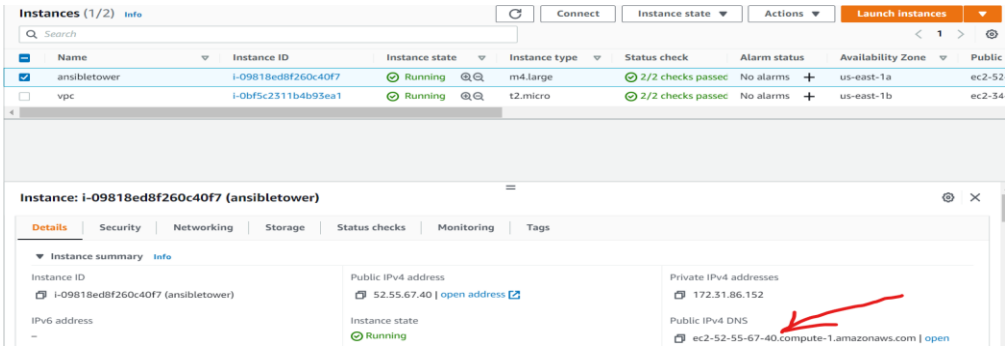
Pem file and should be available in the server (means it should be in linux machine)

Using the winscp are mobaxterm for transferring the files from windows to linux

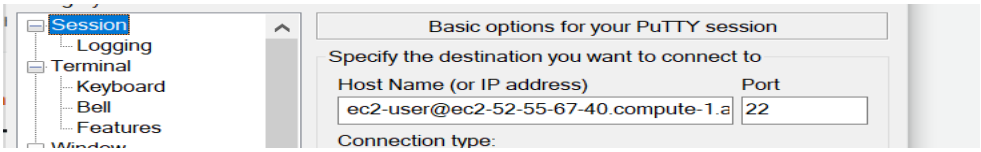
Winscp is used to transfer the file from windows to linux



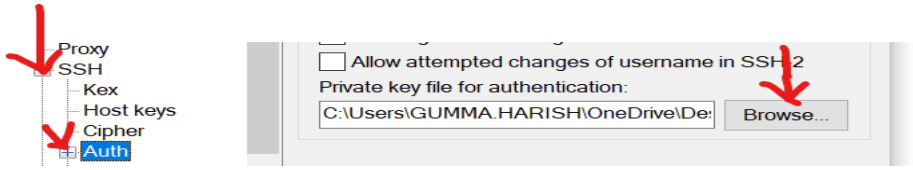
Now using the putty we connect we need to take the aws Dns name



Putty connection



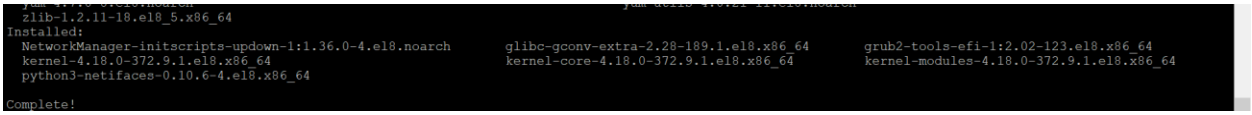
Add the ssh under auth we need to browse



Step-3

Update the package manager

$ sudo yum update -y

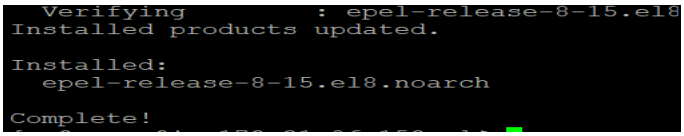


Install EPEL Repository on RHEL

$ sudo dnf install

https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm

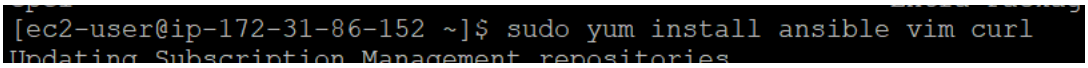
Output



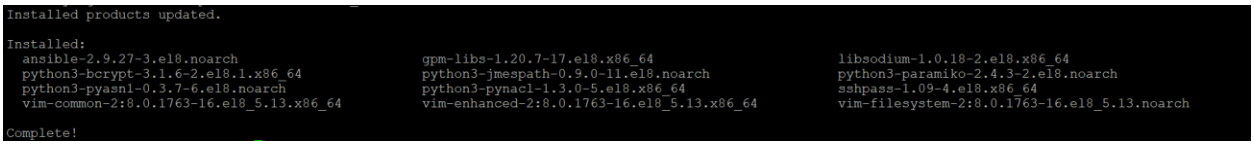
$ sudo dnf repolist epel

Ansible tower uses ansible playbook to deploy itself so we also need ansible installed

$ sudo yum install ansible vim curl -y



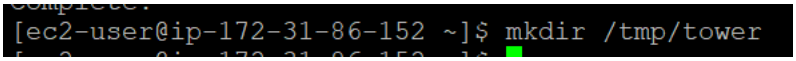
Output



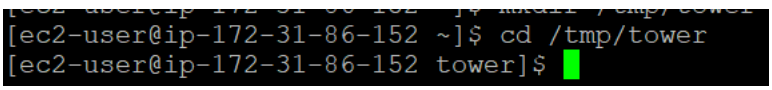
Step-4

Download ansible tower archive

$ mkdir /tmp/tower



$ cd /tmp/tower



We download the latest ansible tower release

$ curl -k -O https://releases.ansible.com/ansible-tower/setup/ansible-tower-setup-latest.tar.gz

```
[ec2-user@ip-172-31-86-152 tower]$ curl -k -O https://releases.ansible.com/ansible-tower/setup/ansible-tower-setup-latest.tar.gz
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 4621k  100 4621k    0     0  3900k      0  0:00:01  0:00:01 --:--:-- 3900k
```

$ ls

```
[ec2-user@ip-172-31-86-152 tower]$ ls
ansible-tower-setup-latest.tar.gz
```

Extract download archive

$ tar xvf ansible-tower-setup-latest.tar.gz

```
[ec2-user@ip-172-31-86-152 tower]$ tar xvf ansible-tower-setup-latest.tar.gz
```

Output

```
ansible-tower-setup-3.8.6-2/
ansible-tower-setup-3.8.6-2/collections/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/ansible/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/ansible/galaxy_collection/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/ansible/galaxy_collection/roles/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/ansible/galaxy_collection/roles/post_install_config/
ansible-tower-setup-3.8.6-2/collections/ansible_collections/ansible/galaxy_collection/roles/post_install_config/defaults/
```

$ ls

```
[ec2-user@ip-172-31-86-152 tower]$ ls
ansible-tower-setup-3.8.6-2  ansible-tower-setup-latest.tar.gz
```

Step-5

Install the ansible tower

Navigate to the created directory

$ cd ansible-tower-setup-3.8.6-2

```
[ec2-user@ip-172-31-86-152 tower]$ cd ansible-tower-setup-3.8.6-2
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$
```

Then give the ls command it will shows the directories and files

$ ls

```
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$ ls
backup.yml   group_vars   inventory  README.md  restore.yml  setup.sh
collections  install.yml  licenses   rekey.yml  roles
```

Edit inventory file to set required credentials (Admin password &PG password)

Edit the inventory file

$ vim inventory

```
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$ vim inventory
```

Inside the inventory file we give the user name and password

```
[tower]
localhost ansible_connection=local

[automationhub]

[database]

[all:vars]
admin_password='admin'

pg_host=''
pg_port=''

pg_database='awx'
pg_username='awx'
pg_password='redhat'
pg_sslmode='prefer'  # set to 'verify-full' for client-side enforced SSL

# Automation Hub Configuration
#

automationhub_admin_password=''

automationhub_pg_host=''
automationhub_pg_port=''

automationhub_pg_database='automationhub'
automationhub_pg_username='automationhub'
automationhub_pg_password=''
automationhub_pg_sslmode='prefer'

# By default if the automation hub core and plugin packages
# are installed (i.e. pulp), they won't get upgraded when running the installer
# even if newer packages are available. One needs to run the ./setup.sh
# script with the following set to True.
#
# automationhub_upgrade = False

# By default, the Ansible package will not be upgraded
# to the latest version, even if one exists in the bundled
# installer or another repository. Set upgrade_ansible_with_hub
# to True if you want Ansible to be upgraded
```

Step-6

Installation of ansible tower

$ sudo ./setup.sh

```
The setup process completed successfully.
Setup log saved to /var/log/tower/setup-2022-05-19-09:09:15.log.
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$
```

$ sudo ansible-tower-service start

```
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$ sudo ansible-tower-service start
```

$ sudo ansible-tower-service status

```
[ec2-user@ip-172-31-86-152 ansible-tower-setup-3.8.6-2]$ sudo ansible-tower-service status
● ansible-tower.service - Ansible Tower service
   Loaded: loaded (/usr/lib/systemd/system/ansible-tower.service; enabled; vendor preset: disabled)
   Active: active (exited) since Thu 2022-05-19 09:17:53 UTC; 2min 53s ago
  Process: 77406 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
 Main PID: 77406 (code=exited, status=0/SUCCESS)

May 19 09:17:53 ip-172-31-86-152.ec2.internal systemd[1]: Starting Ansible Tower service...
May 19 09:17:53 ip-172-31-86-152.ec2.internal systemd[1]: Started Ansible Tower service.

● postgresql.service - PostgreSQL database server
   Loaded: loaded (/usr/lib/systemd/system/postgresql.service; enabled; vendor preset: disabled)
  Drop-In: /etc/systemd/system/postgresql.service.d
           └─override.conf
   Active: active (running) since Thu 2022-05-19 09:10:17 UTC; 10min ago
 Main PID: 71510 (postmaster)
    Tasks: 17 (limit: 49245)
```

After run the script it will shows

The setup process completed successfully

After open the browser we give the ip address

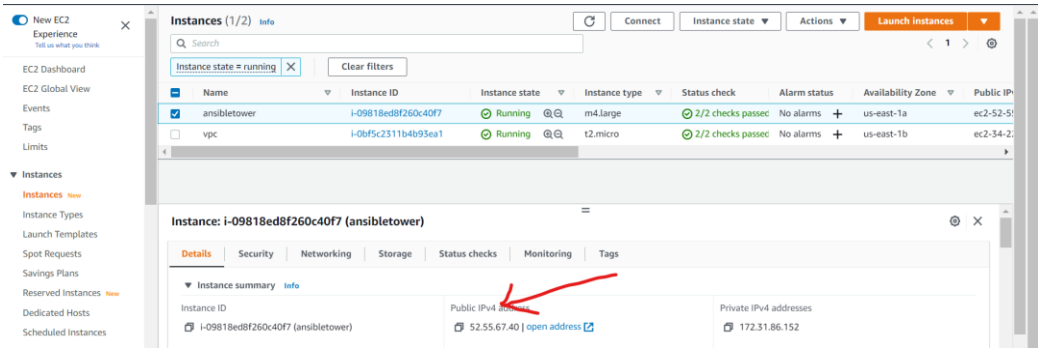
It will ask the User name and password

Username: admin

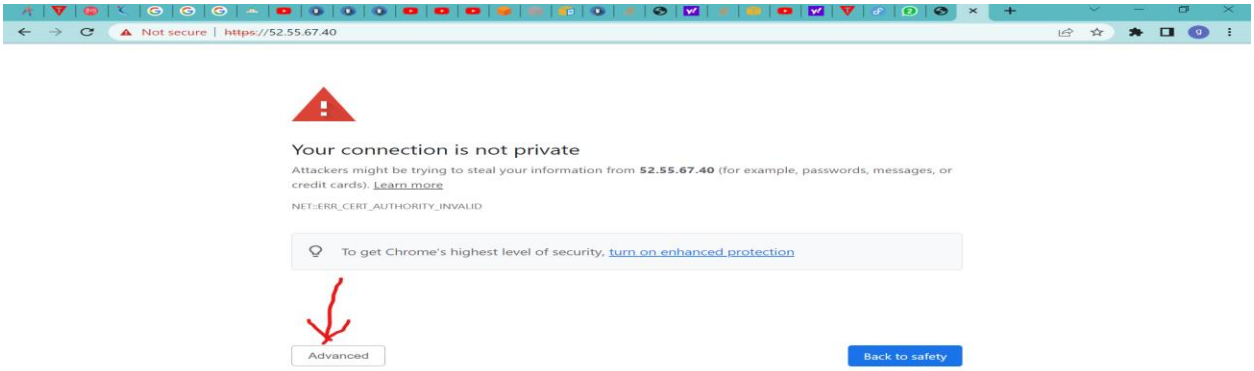
Password: redhat

Step-7

Lets check that by taking the public ip of the instance

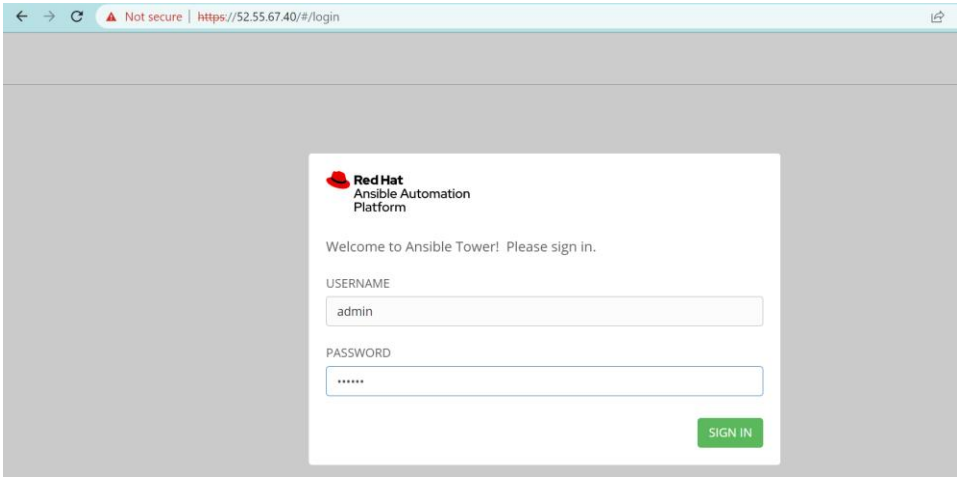


Paste the ip address in the web browser the output will come like this (we need to select the advance option)

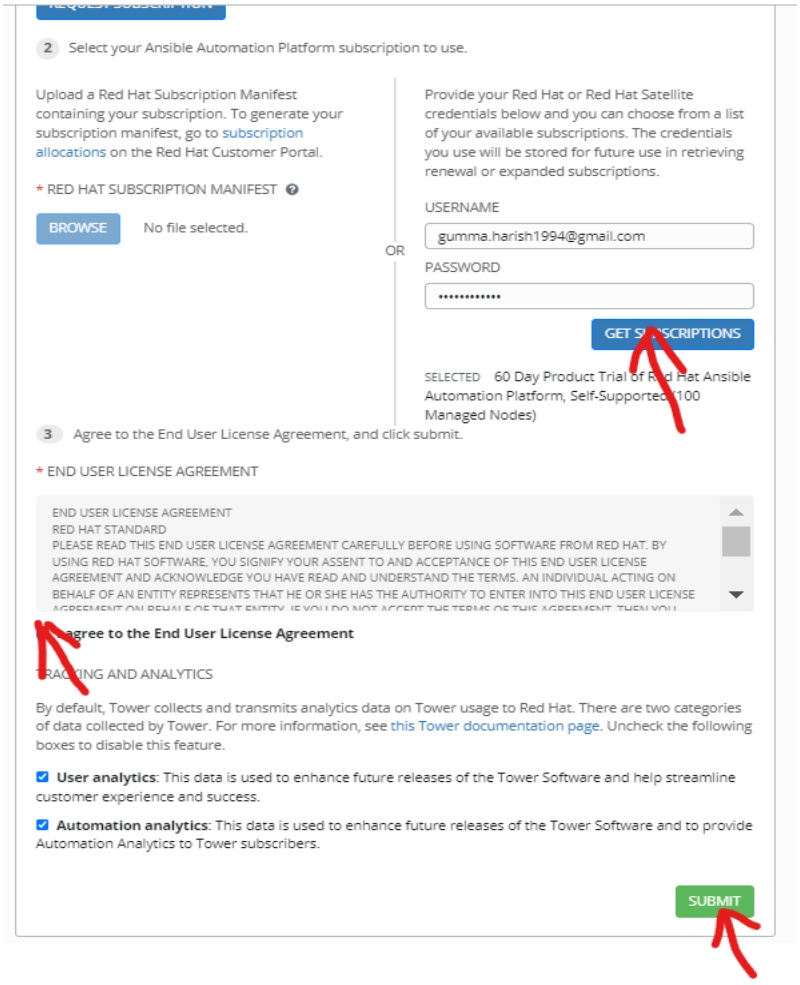


We need to proceed that

Now we got the login page



After login the page we get the this page



Finally we will get ansible tower dashboard