Ansible Tower on Azure: Post Deployment Guide

Overview

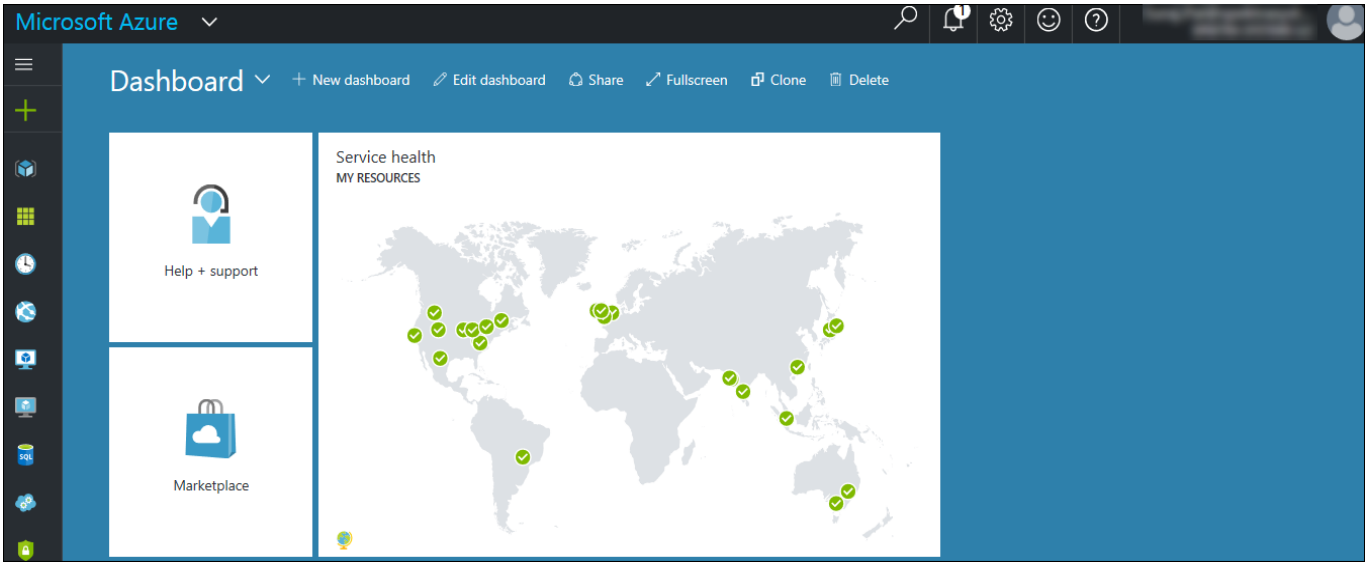
This document will help you in configuring the Ansible Tower to add host VM's and get an introduction to Ansible Tower and Configuration Management.

Prerequisites

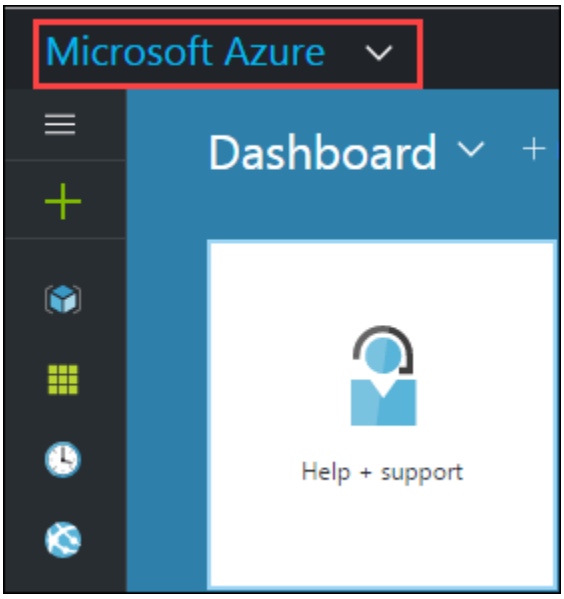
- Microsoft Azure Subscription with admin credentials.
- Azure Quick-start template **Ansible-Tower-RHEL-solution** needs to be deployed successfully in the subscription.

Instructions

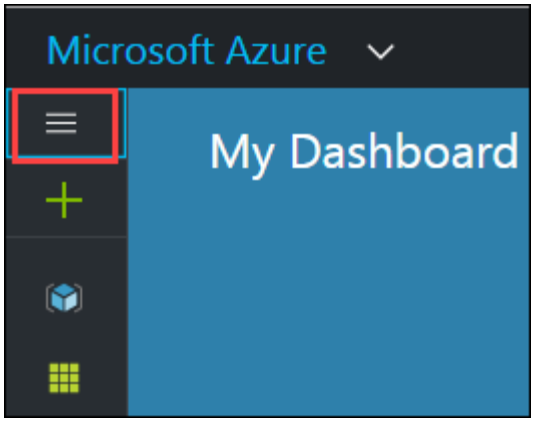
1. **Launch** a browser and **Navigate** to https://portal.azure.com. **Login** with your Microsoft Azure credentials.



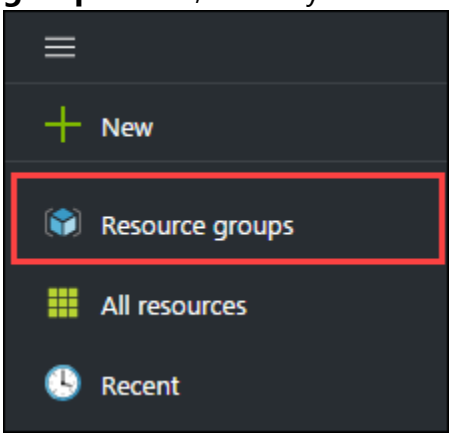
2. **Click** on **Microsoft Azure** at the top left corner of the screen, to view the Dashboard.



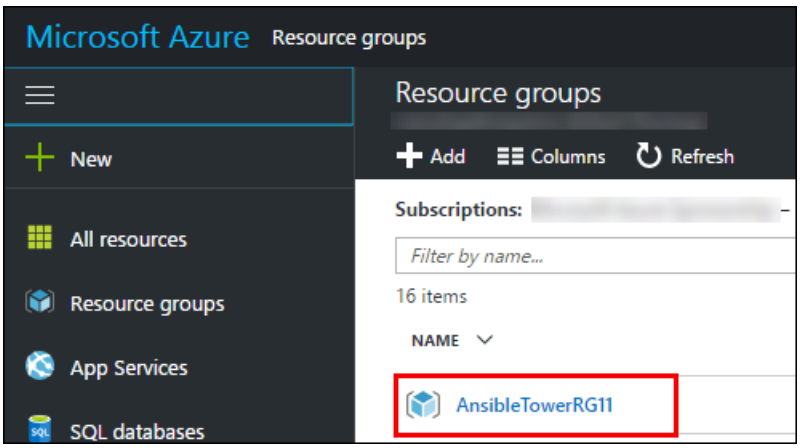
3. To toggle **show/hide** the Portal menu options with icon, **Click** on the **Show Menu** button.



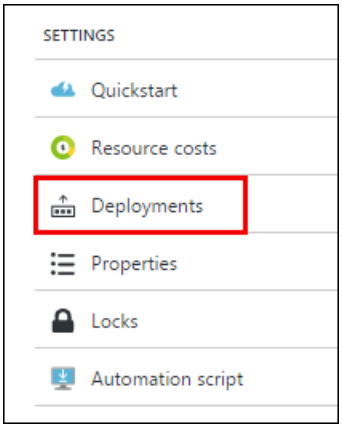
4. **Click** on the **Resource groups** button in the **Menu navigation** bar to view the **Resource groups** blade, where you can view all the resource groups that you have created.



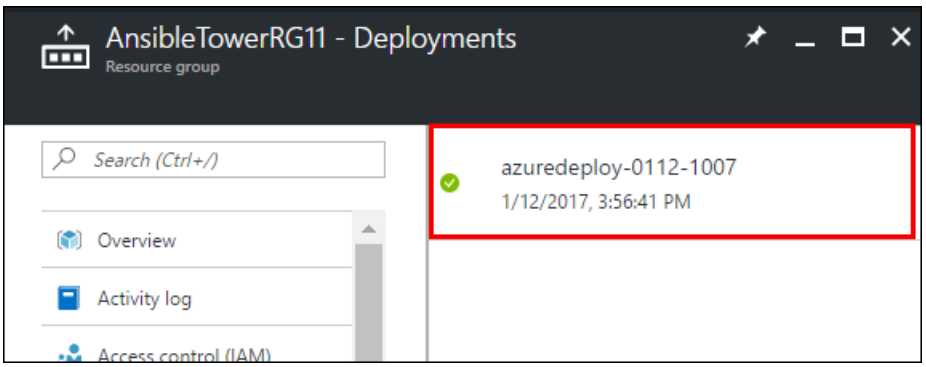
5. **Select** the Resource Group in which you deployed the quick start template.



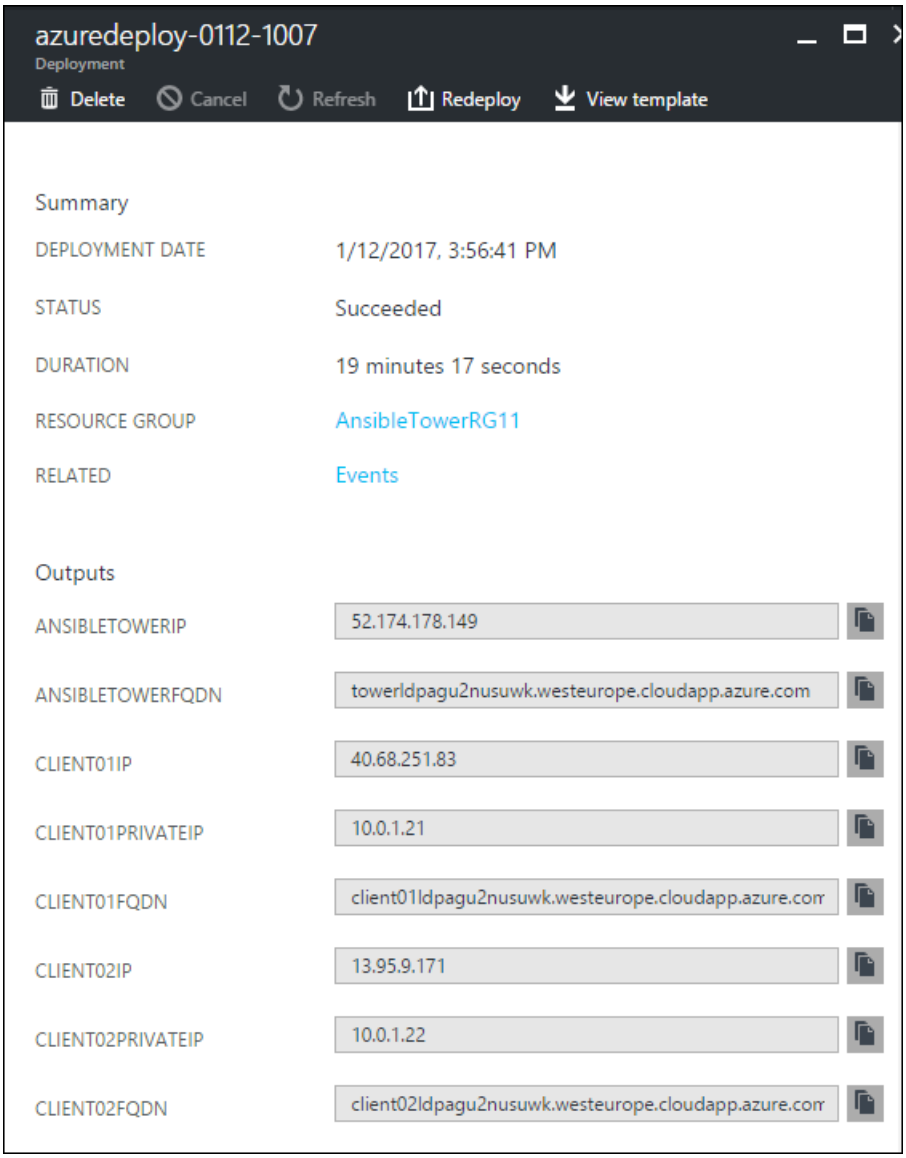
6. From **Settings**, select **Deployments**.



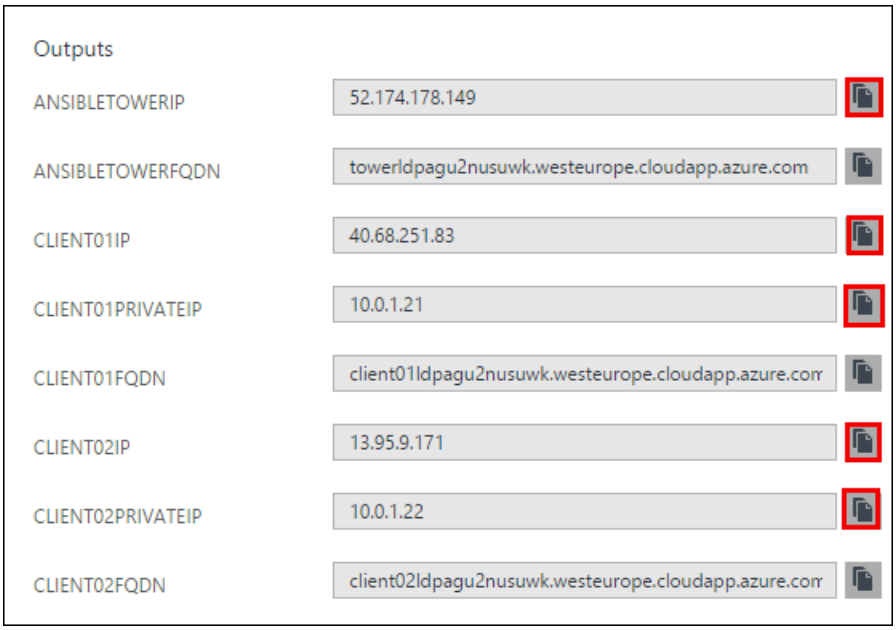
7. Select the latest **deployment** available on this resource group.



8. In the **Deployment** blade, scroll down to the **Outputs** section. You will see the **Public IP** address and **DNS** Names of **Ansible Tower** and **Client** Virtual Machines.



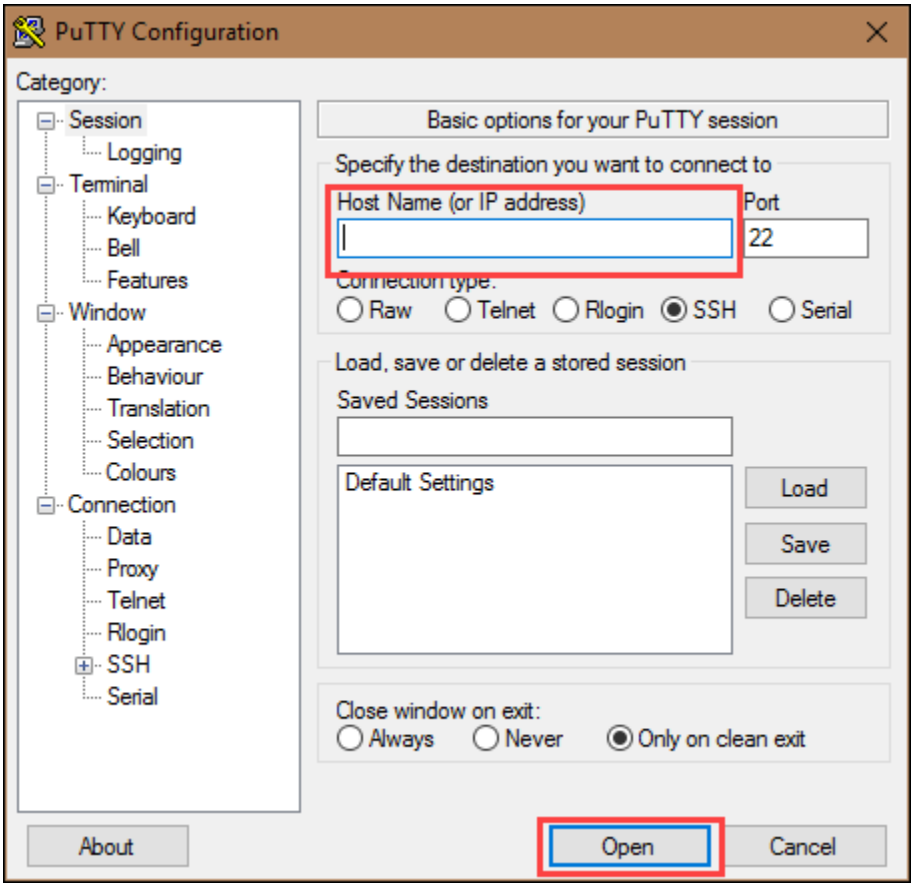
9. **Click** the **Copy** icon to copy all the Public IP address. **Create** a new text document in Notepad and **paste** both **IP addresses** to it as **Ansible Tower Public Ip**, **Client01 Public IP** and **Client02 Public IP**.



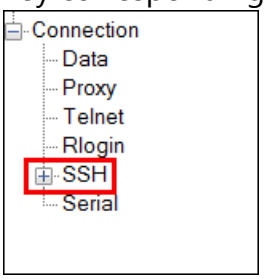

```
ANSIBLETOWER IP
52.174.178.149

CLIENT 01 IP
40.68.251.83

CLIENT 01 PRIVATE IP
10.0.1.21

CLIENT 02 IP
13.95.9.171

CLIENT 02 PRIVATE IP
10.0.1.22
```

10. Now you will connect to the **Ansible Tower VM**. If you are using a Windows machine, you would need an **SSH client** for connecting to an Linux Virtual Machine. **Putty** is the most used SSH client for windows.
11. **Download** Putty from here. http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html
12. Now run **putty.exe** from you PC.

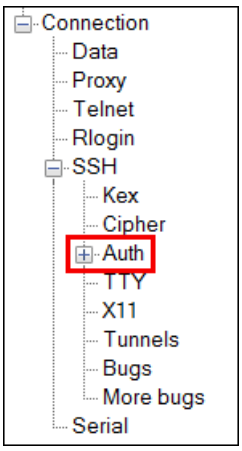
13. This is the application window that pops up when you run **putty.exe.**



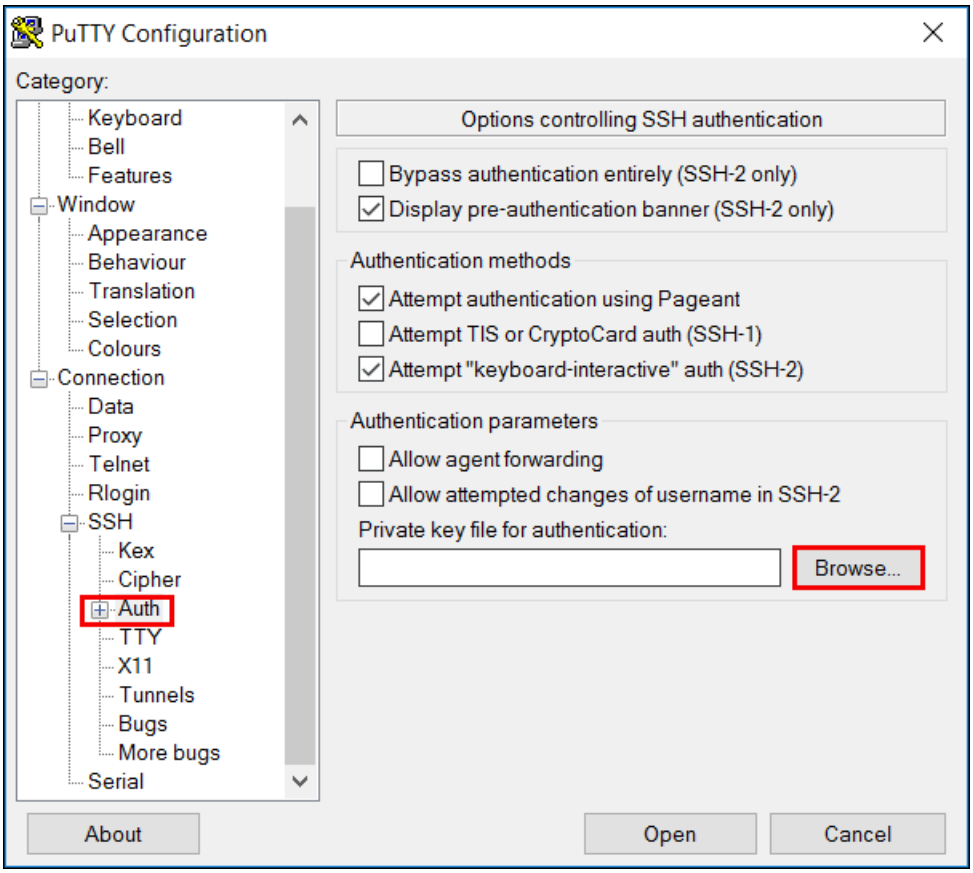
14. **Enter** the **Public IP address** of the Ansible Tower VM to the **Host Name (or IP address)** box of the putty to connect.
15. Now click on **+ SSH** from the Category menu on the left side of the putty to select the private key corresponding to the public key that was mentioned during the Quick Start launch.



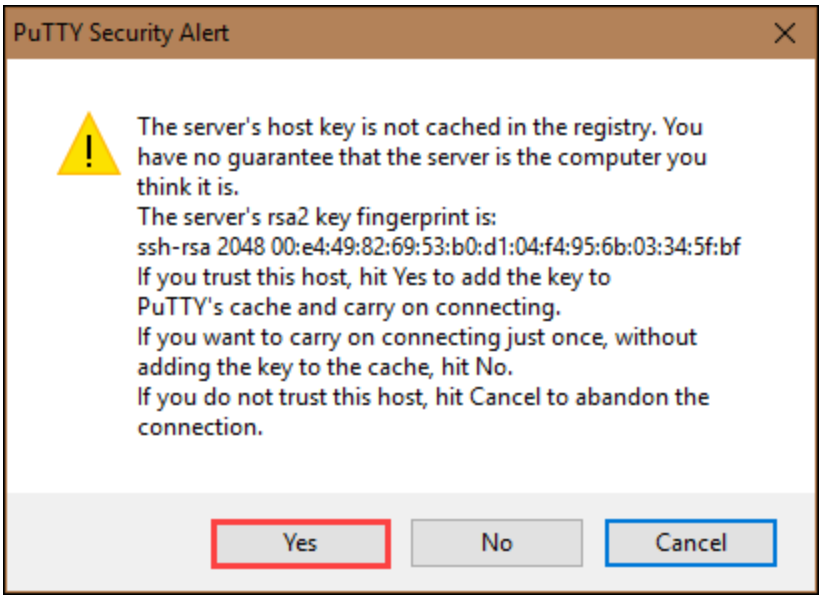
16. Then click on **+ Auth**



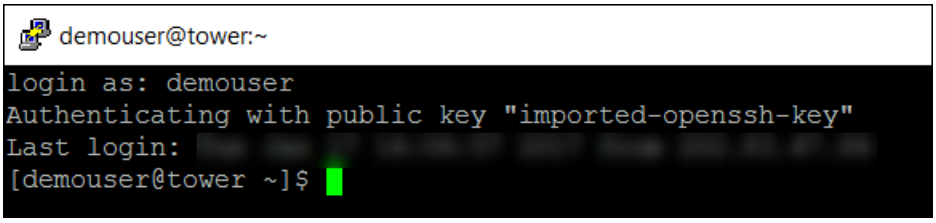
17. Now click on browse and select the private key file with " .ppk " extension.



18. Then **Click** on **Open.**
19. Now a new terminal will pop and you will be connected to your Ansible Tower virtual machine.
20. The **PuTTY Security Alert** will pop up. **Click** on **Yes.**

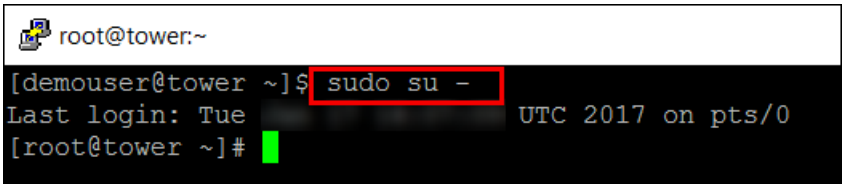


21. **Login** using your **username** for the **Ansible Tower VM.**
22. After entering the username, you provided during Quick Start Launch, you can start accessing the **Ansible Tower** Virtual Machine**.**



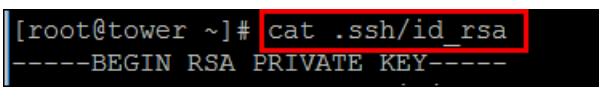
23. Now **sudo** to **root** account by executing the following command

```
sudo su -
```



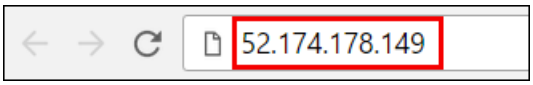
24. Now, **execute** the following **command** to display the private key generated in the Ansible Tower VM.

```
cat .ssh/id_rsa
```



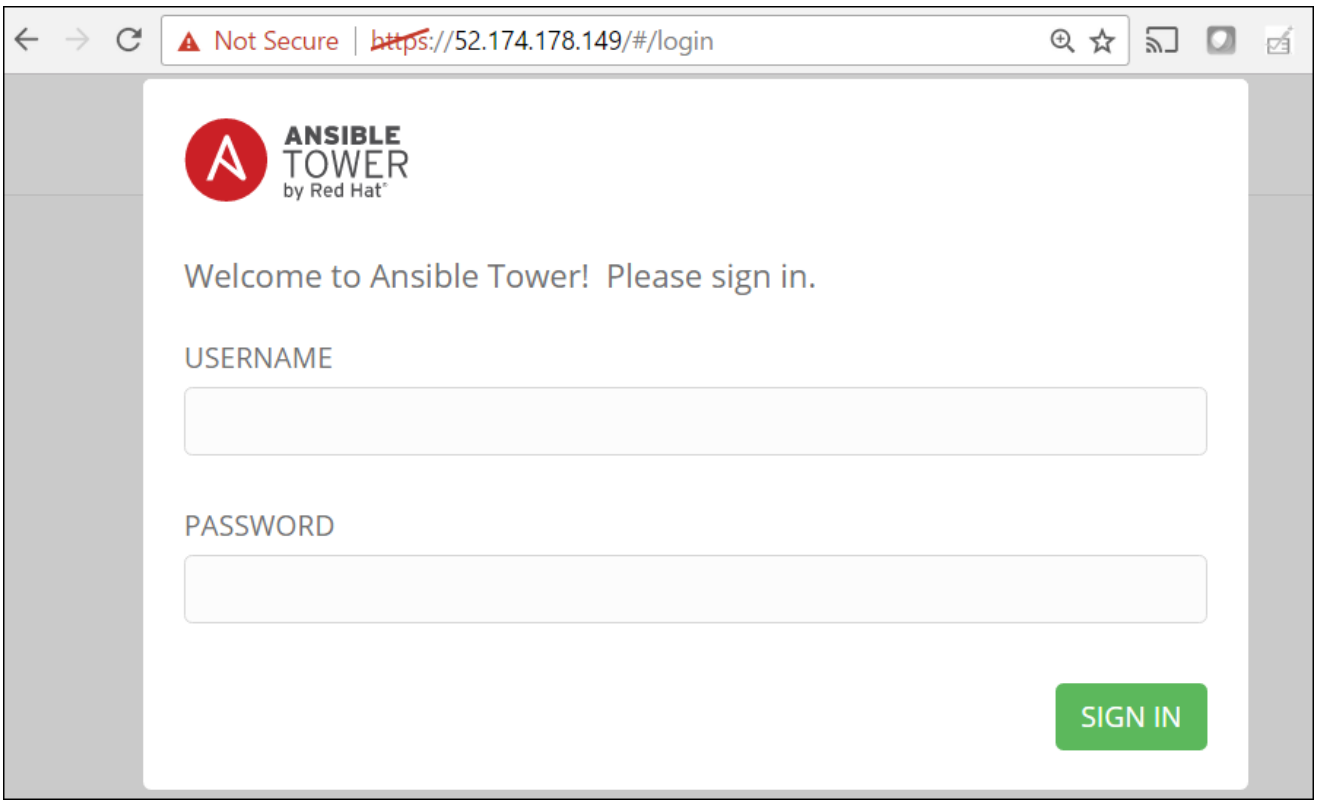
25. Now **copy** the **private key** by selecting the text from "-----BEGIN RSA PRIVATE KEY-----" and "-----END RSA PRIVATE KEY-----" and then pressing **CTRL + C** on keyboard and then **paste** the private key on **to** a **notepad**.

26. **Open** a new tab in the browser and paste the **Ansible Tower Public IP** from the notepad.



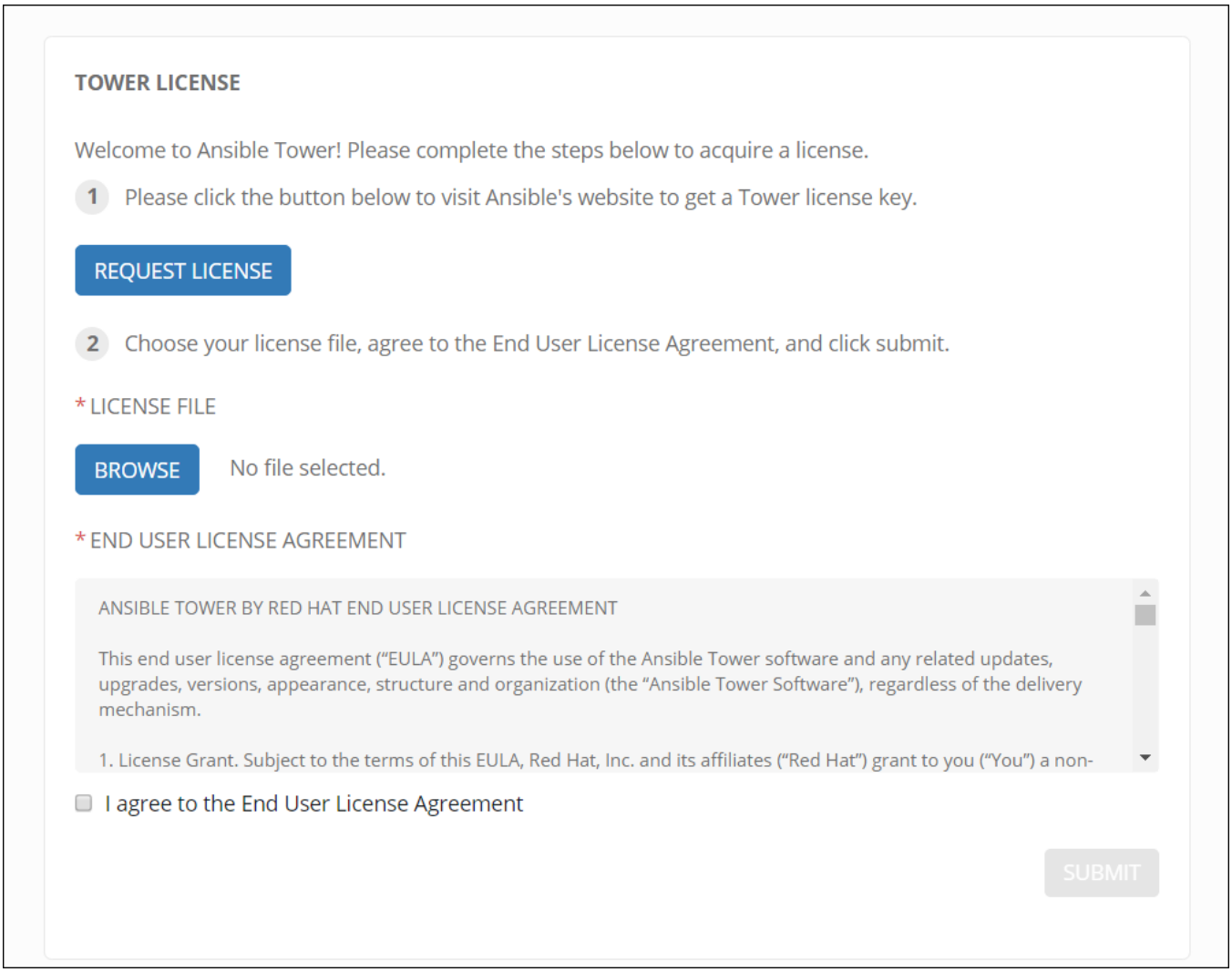
You'll see a warning in your web browser. This is because the deployment uses a self-signed certificate. To proceed, ignore the SSL Warning

27. Now you will be directed to the Ansible Tower Login page.



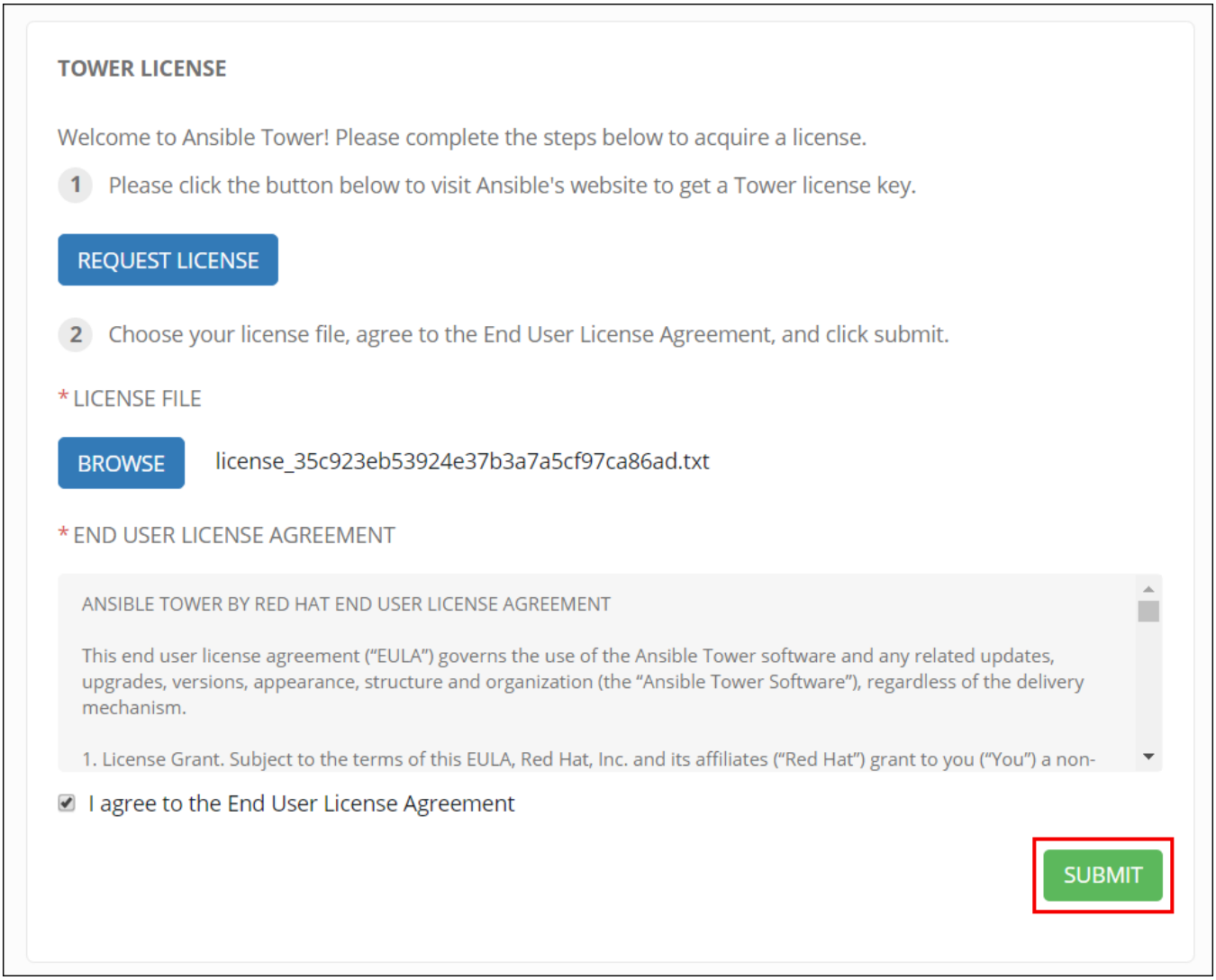
28. For the user name, type **admin**, and then **provide** the **admin password** you provided when you launched the Azure Quickstart template and then **Click** on **SIGN IN**.

29. Now you will be redirected to the license page.

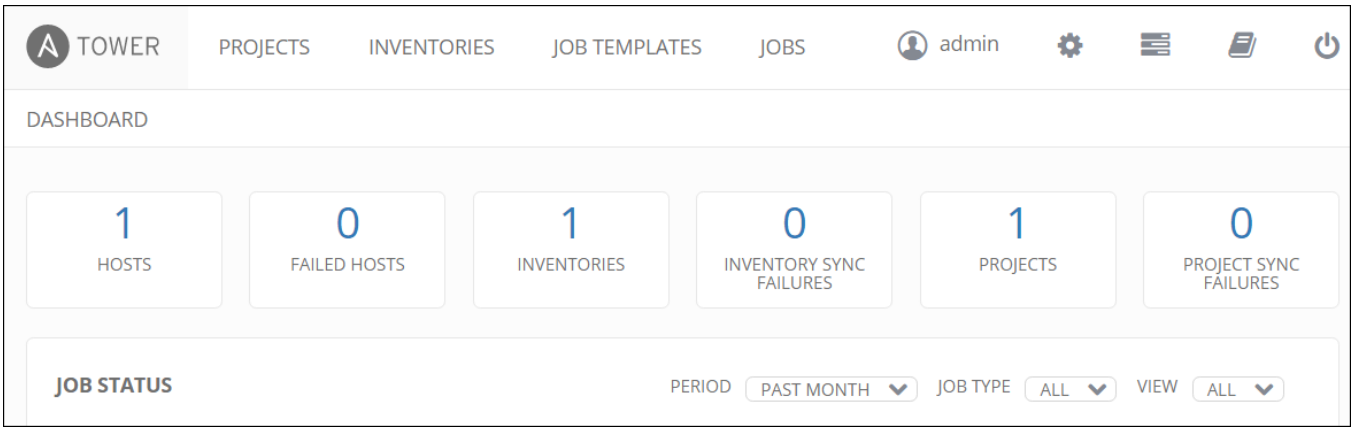


30. If you already have a license file, **click** Browse and **select** the license file. Else, **click** on **REQUEST License** and get a license and **upload** the license file.

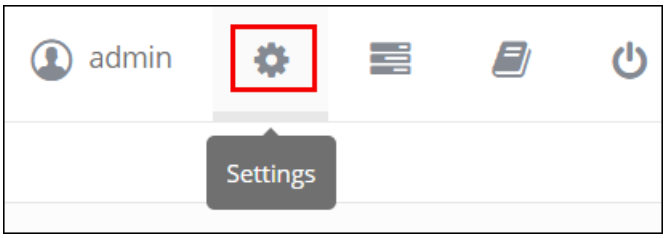
31. After uploading the license file, **accept** the License Agreement and then **click** on **SUBMIT**.



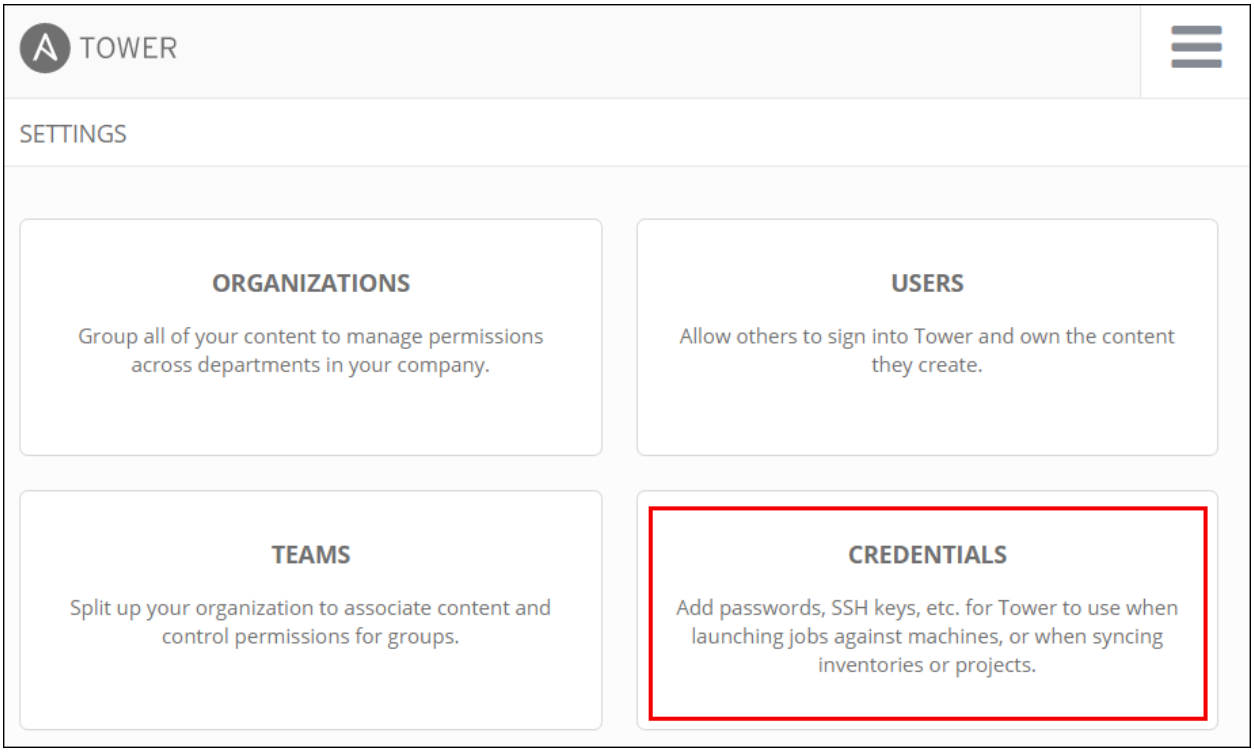
32. Now you will be directed to the Ansible Tower Dashboad.



33. On the Ansible Tower dashboard, **choose** the **Settings** button in the upper-right corner to open the Settings screen.

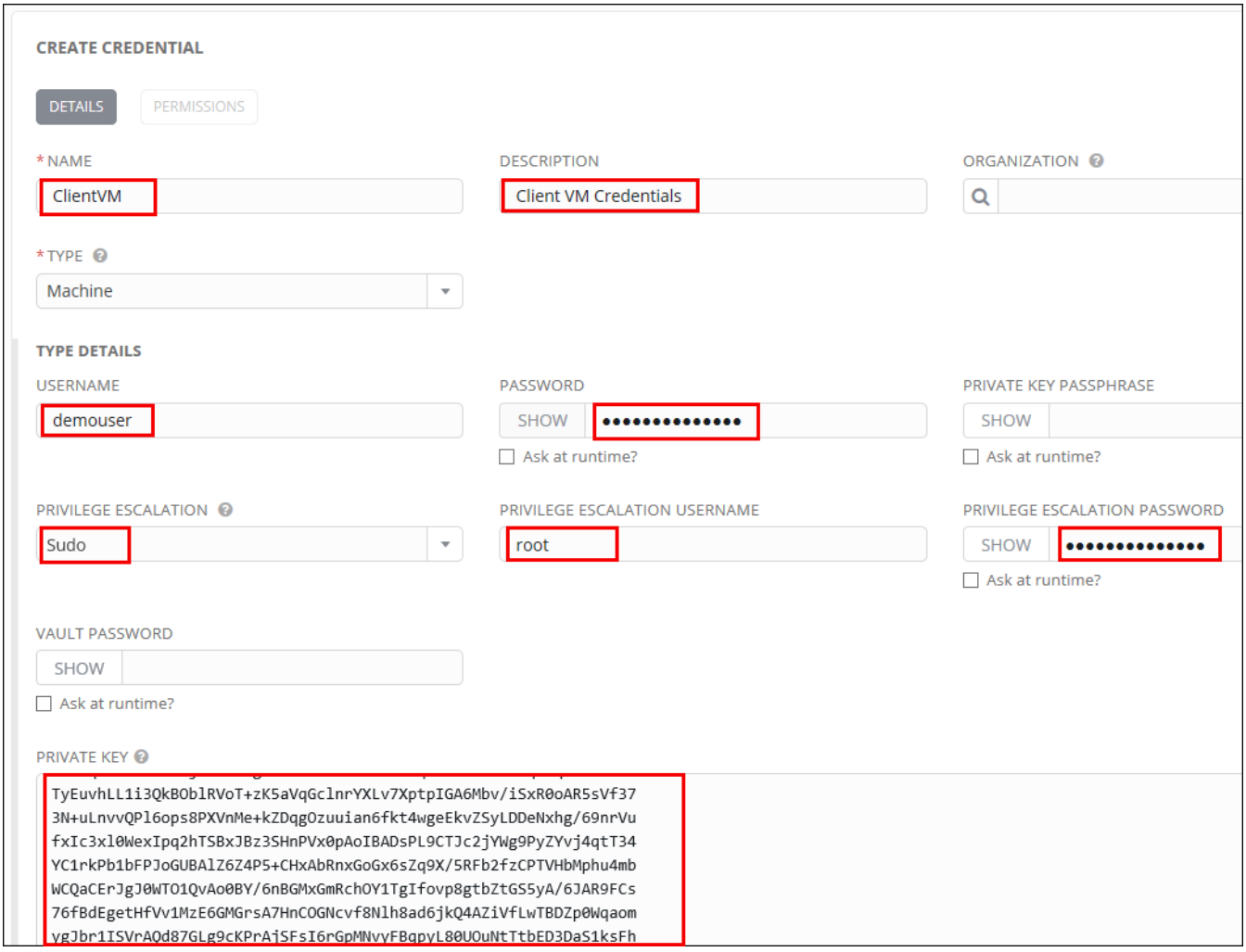


34. Now choose **Credentials**, and then choose the +**Add** button to create a new credential.

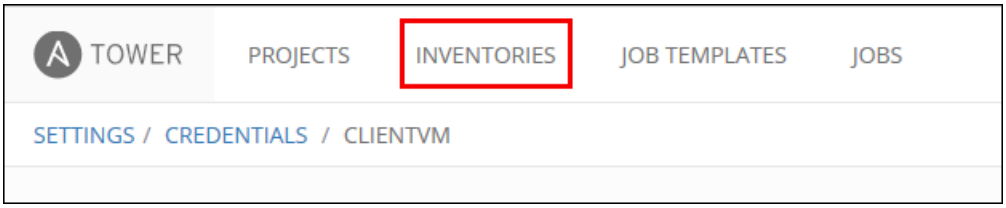


35. **Enter** the **credential details** as shown:
    - Provide a **Name** and **Description**.
    - Leave **User** selected as the owner type.
    - Choose **Machine** as the type.

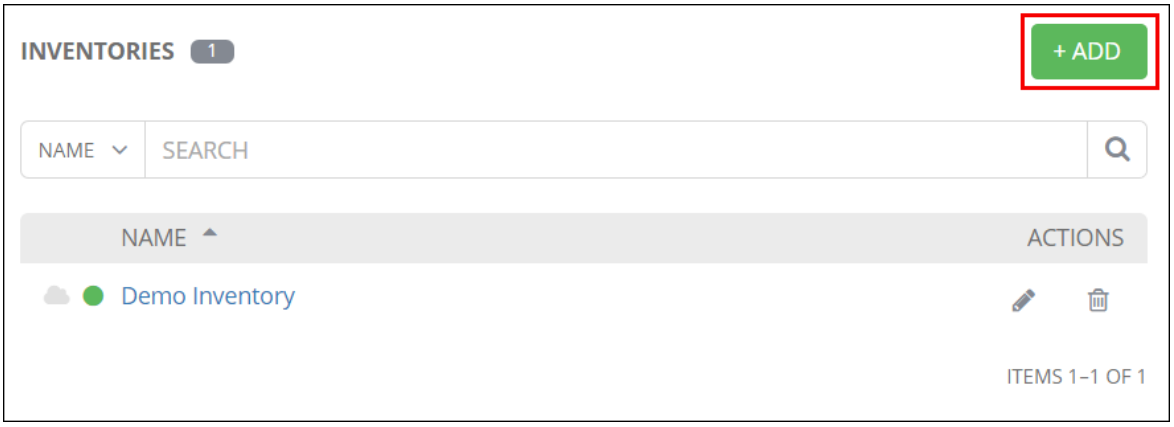
- **Username**: Provide the Client VM's username here
- **Password**: Provide the Client VM's password here
- **Privilege Escalation**: Select Sudo from the list
- **Privilege Escalation Username**: Provide root
- **Privilege Escalation Password**: Provide the Client VM's password here
- **Private Key**: Paste the private key that was copied earlier in the field
  Then Choose **Save**.



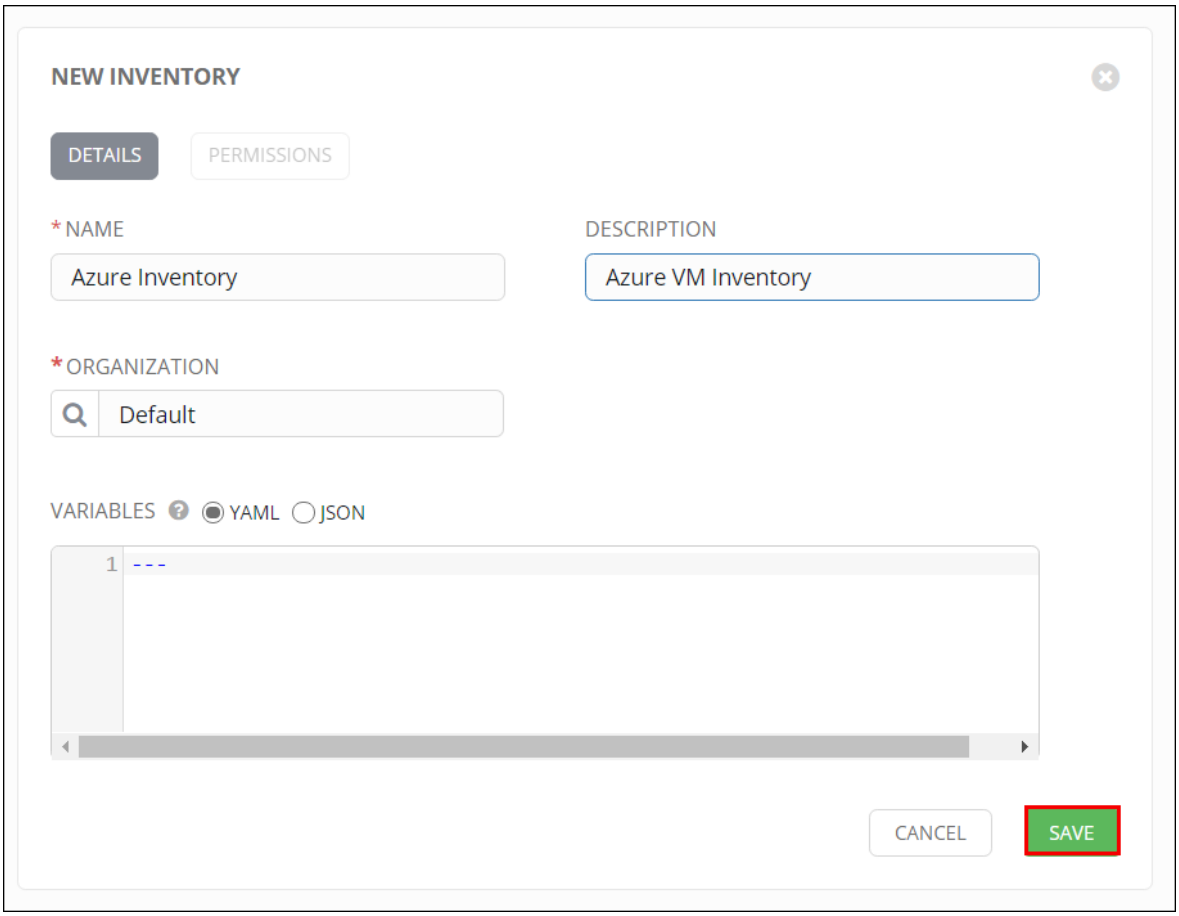
36. Select **INVENTORIES** in the Ansible Tower dashboard.



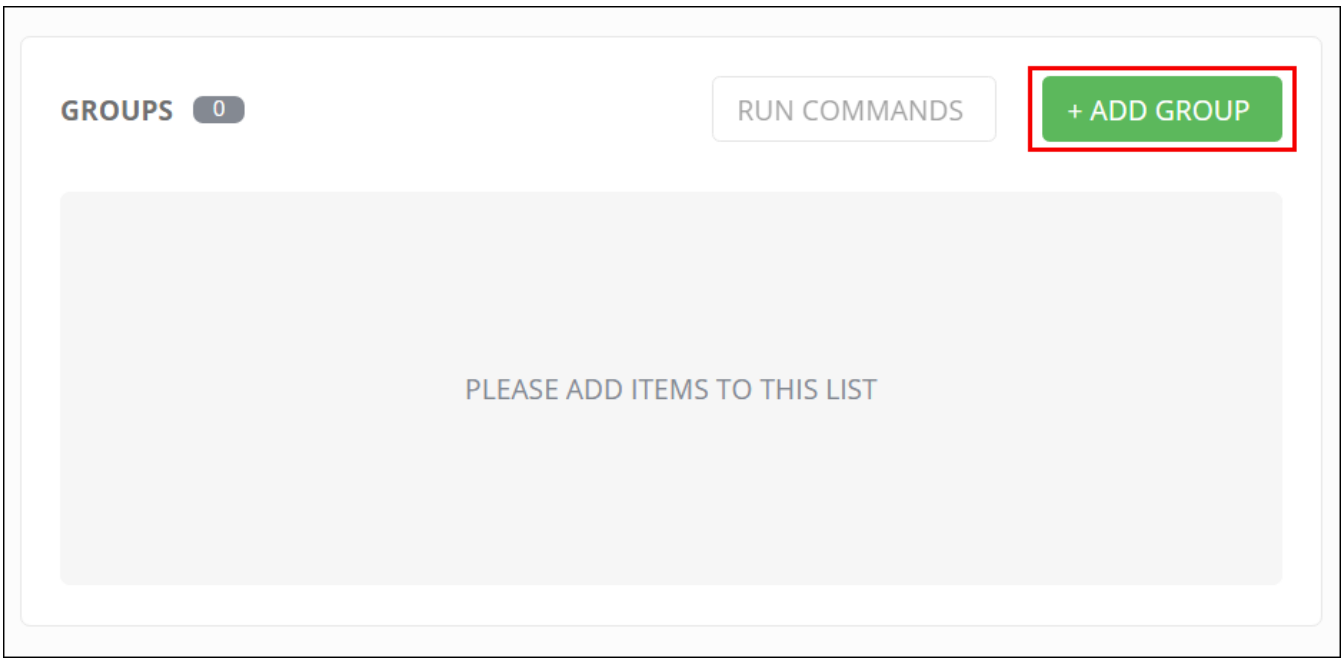
37. **Create** a new **inventory** by clicking the + ADD button, which opens the **Create Inventory** window.



38. **Provide** a **name** and **description** for the default organization. Leave the Variables section unchanged, and choose **Save** to create an inventory.

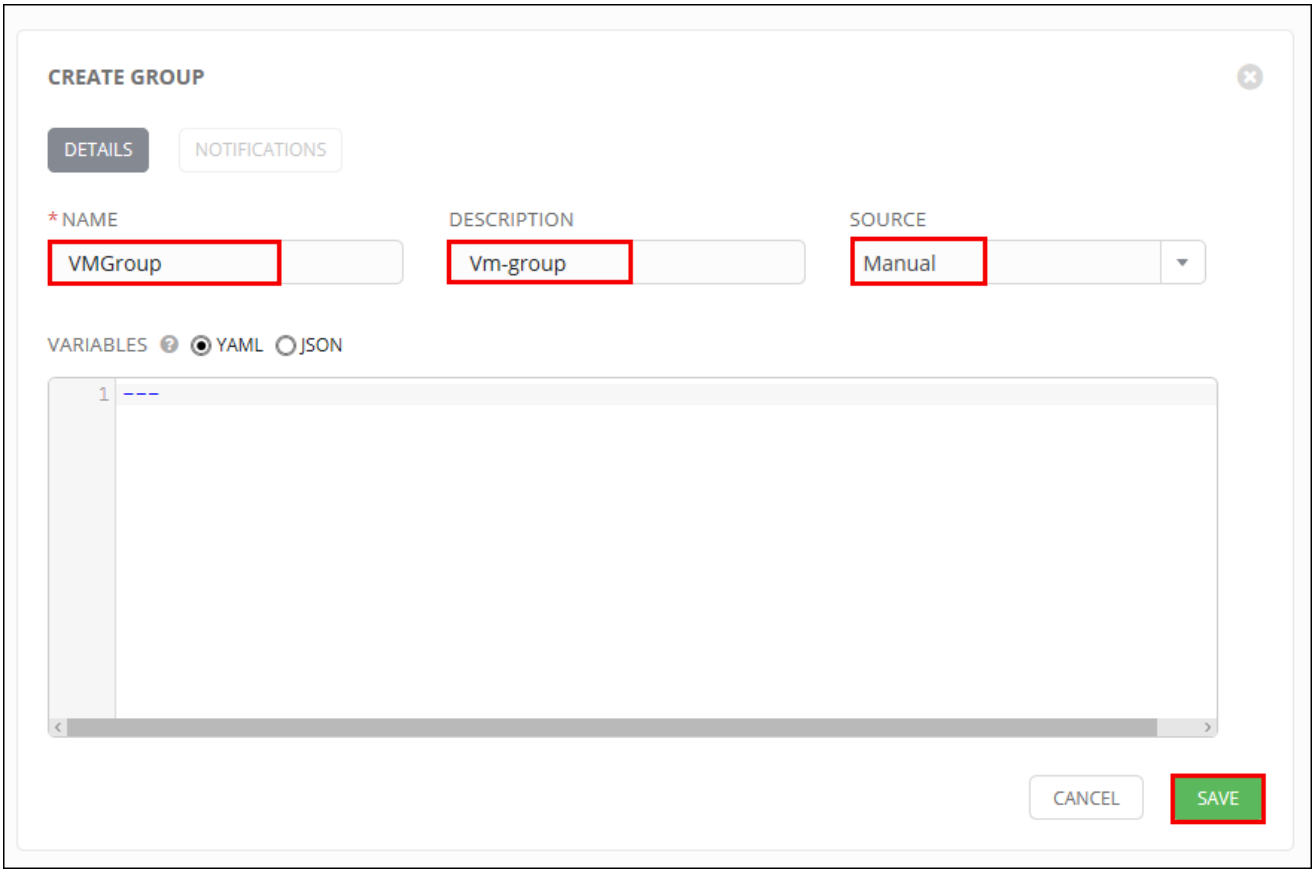


39. **Create** a new **group** for an inventory by clicking the + ADD GROUP button, which opens the **Create Group** window.



40. **Enter** the **following details** into the required and optional fields, and click **Save**.

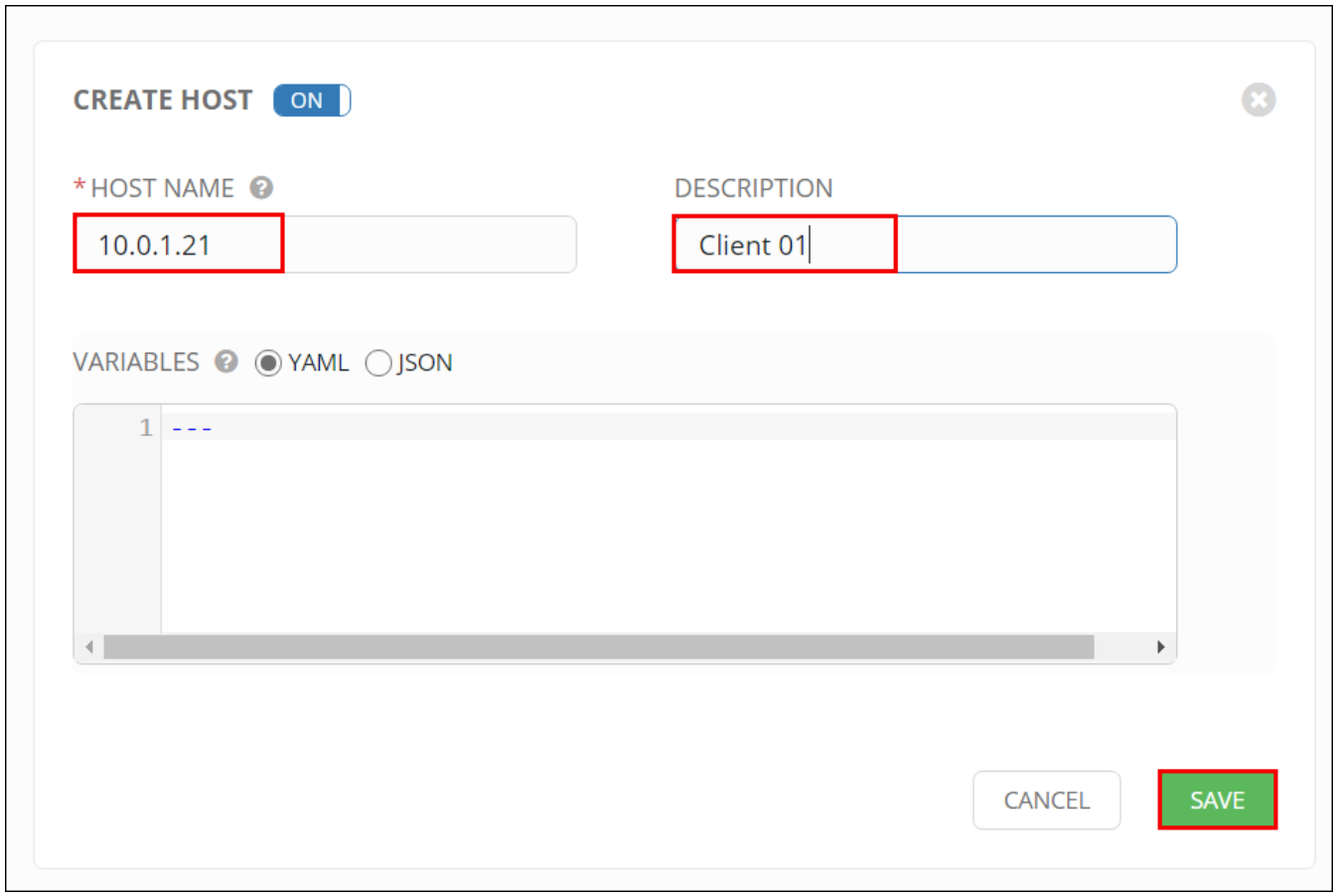
- **Name**: VMGroup
- **Description**: Enter an arbitrary description as appropriate
- **Source**: Choose Manual



41. To add Hosts to an existing group, **select** the existing group **VMGroup** from the inventory by **clicking** on **VM Group**.

42. To add Hosts, **click** the button + ADD HOST

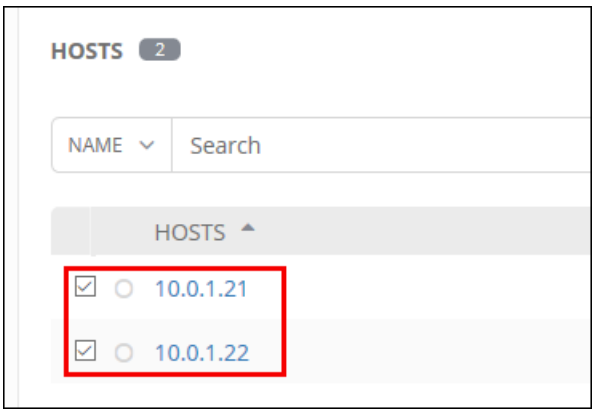
43. In the **Add Hosts** window, **provide** the copied **Private IP** of **client01** virtual machine as Host name and a **description** for the Host, as shown. Leave the Variables section unchanged, and then choose **Save**.



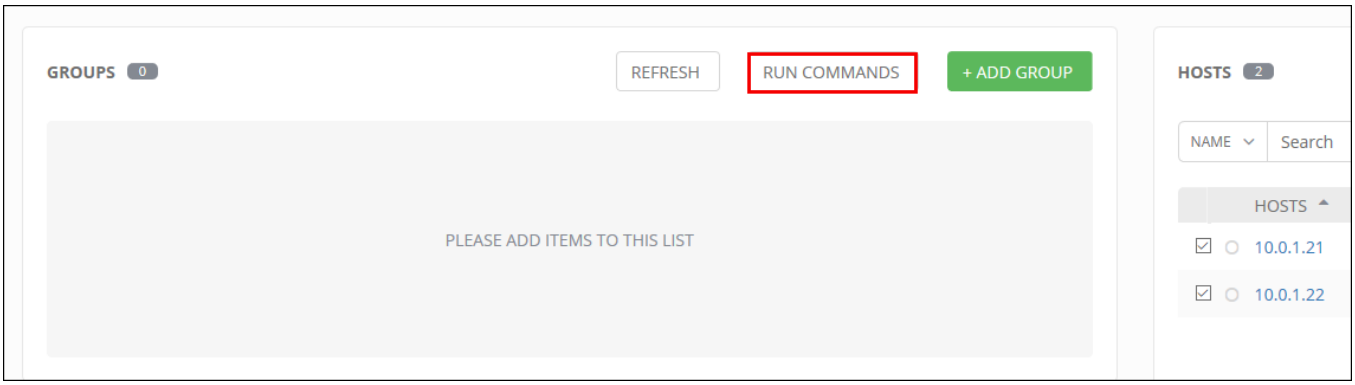
44. Similarly, **add** the **Private IP** of **Client 02** as host.

45. Now, in the **HOSTS** section of the inventory, you can see the added hosts.

46. To verify that SSH connection can be established between the hosts, **select** both hosts.



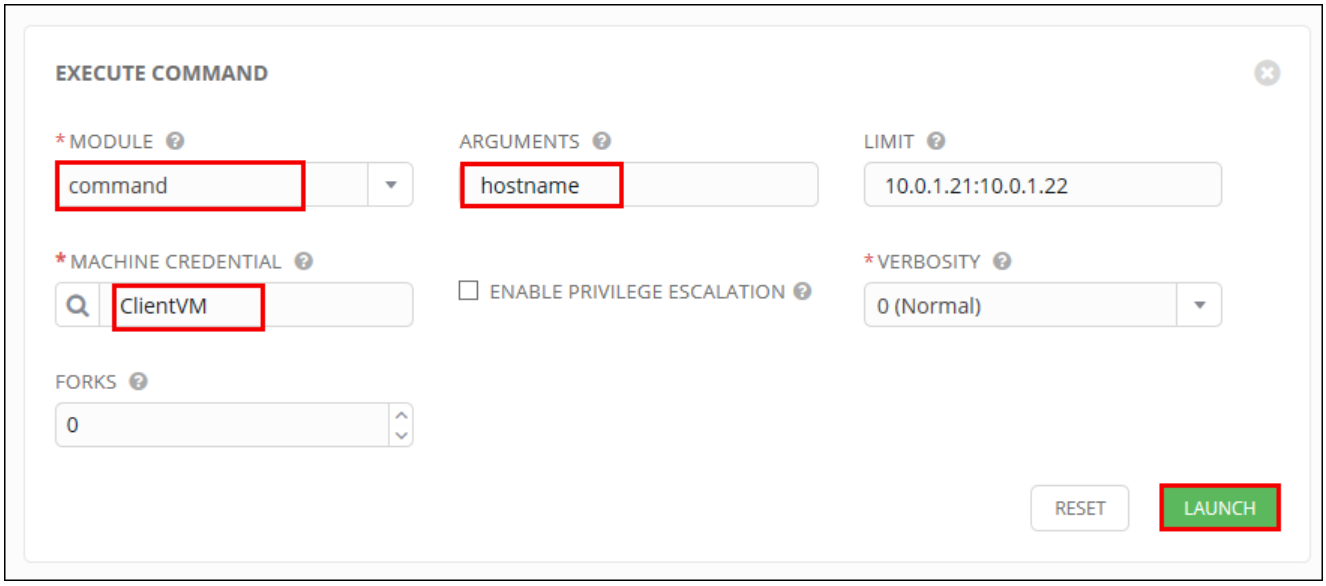
47. Select **Run Commands** from the Group Section.



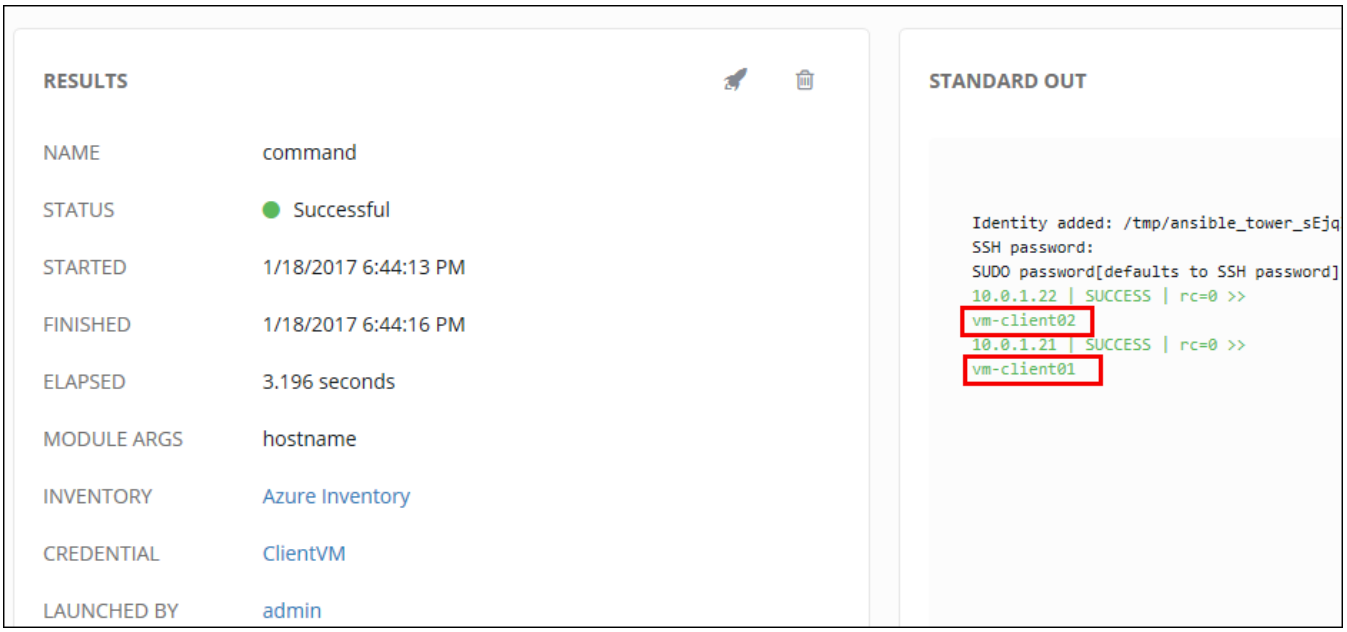
48. **Enter** the **following details** into the Execute Command Section, and click **Launch**.

- **Module**: command
- **Arguments**: hostname
  This command prints the host name

- **Machine Credential**: ClientVM

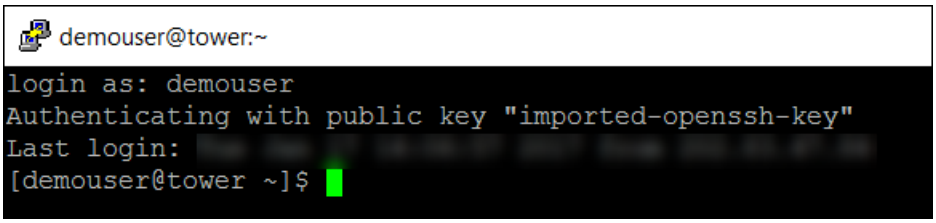


49. Now you will be redirected to the Results page and you can verify that the commands were properly executed by checking the **STANDARD OUT** section for hostnames of client VM's



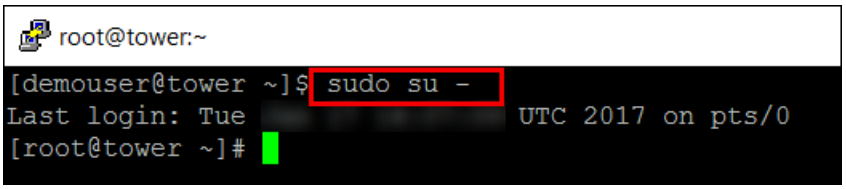
Installing Wordpress on Client VM's (Optional)

50. **Connect** to **Ansible Tower VM** using **Putty** or terminal as done earlier.
51. **Login** using the **username** you provided for the **Ansible Tower VM.**
52. After entering the username, you provided during Quick Start Launch, you can start accessing the **Ansible Tower** Virtual Machine**.**



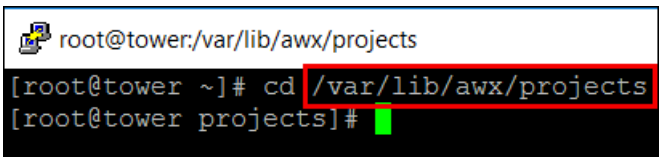
53. Now sudo to root account by executing the following command

```
sudo su -
```



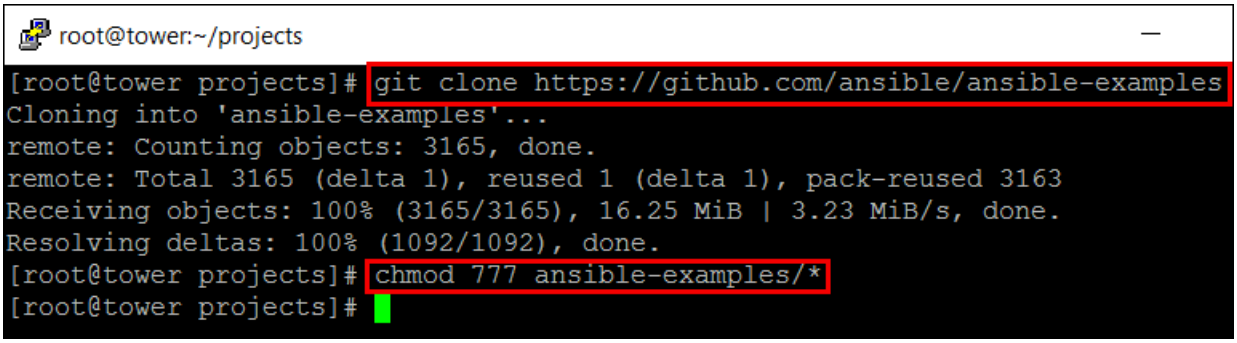
54. Now, **execute** the following **command** to change the directory to Ansible project directory.

```
cd /var/lib/awx/projects
```



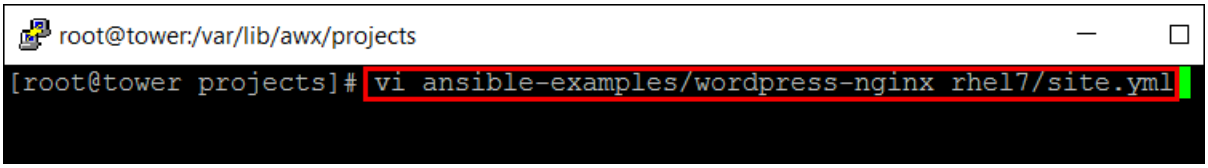
55. Now **execute** the following **commands** to clone the Ansible Official Samples Repository and change the permissions of the folder.

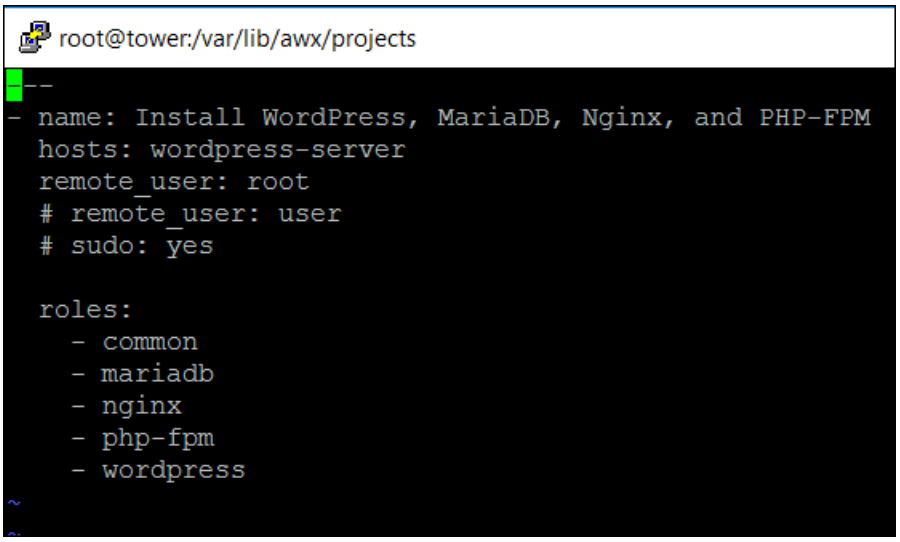
```
git clone https://github.com/ansible/ansible-examples
chmod 777 ansible-examples/*
```



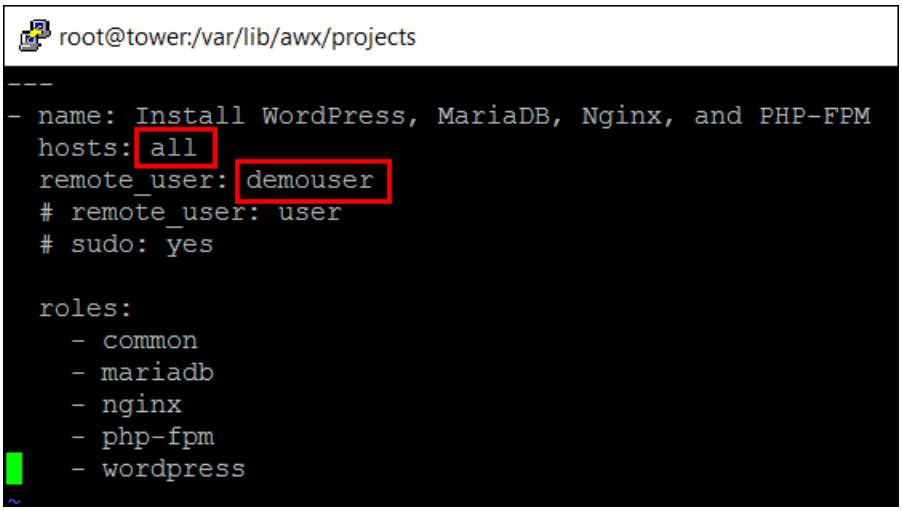
56. Now, **execute** the following **command** to edit the Inventory file of wordpress-nginx_rhel7 project by opening it in VI Text Editor.

```
vi ansible-examples/wordpress-nginx_rhel7/site.yml
```



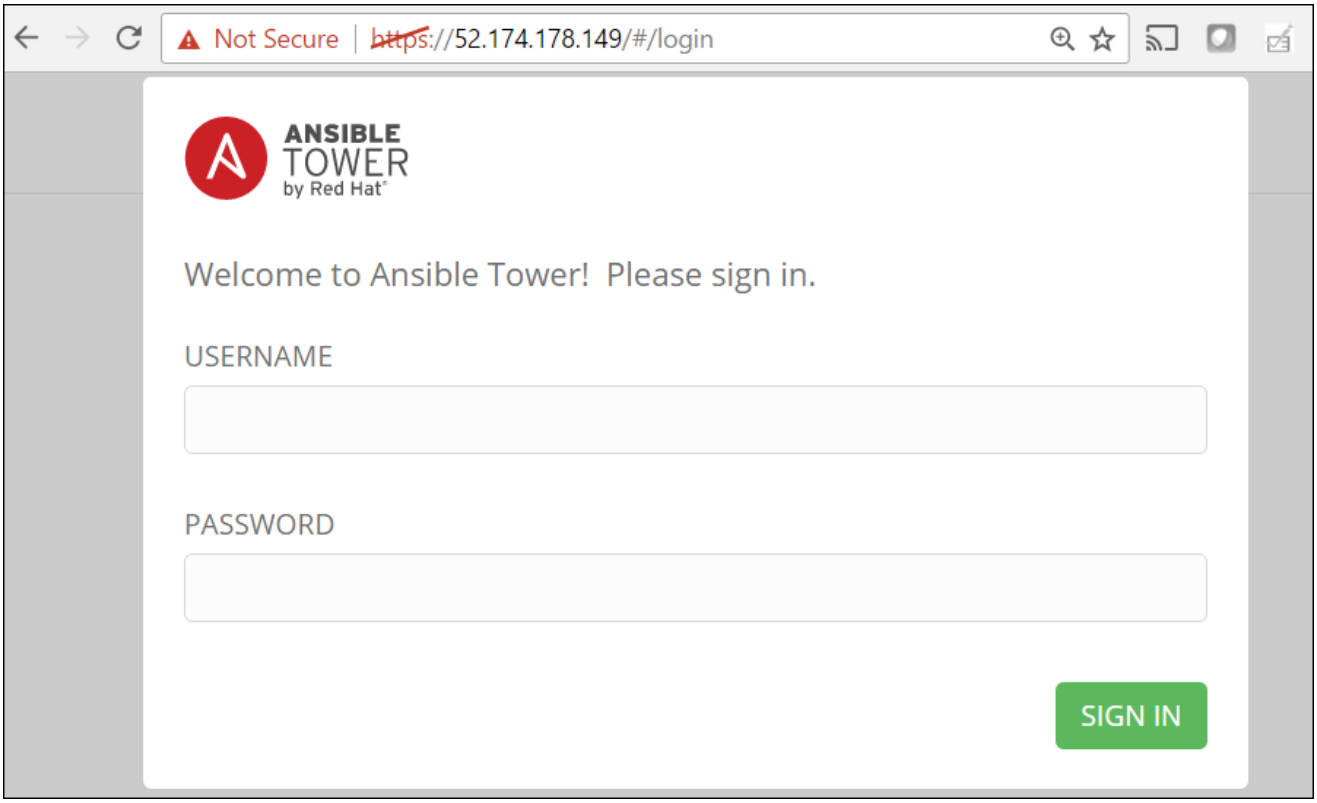


57. Now press **Insert** key and **replace** root corresponding to remote_user with the username of the Client VM's user and replace '**wordpress-server'** with '**all**' and then press **ESC** and then type **' :wq! '**



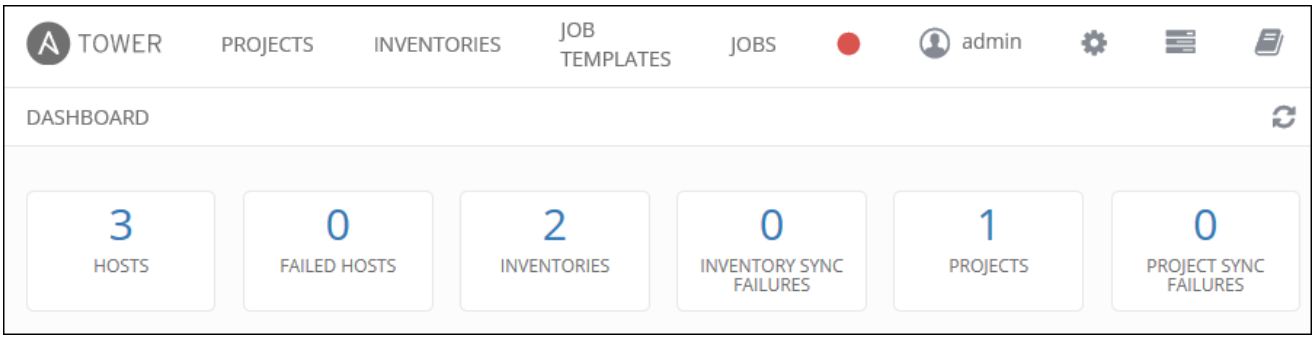
58. **Open** a new tab in the browser and paste the **Ansible Tower Public IP** from the notepad.

59. Now you will be directed to the Ansible Tower Login page.



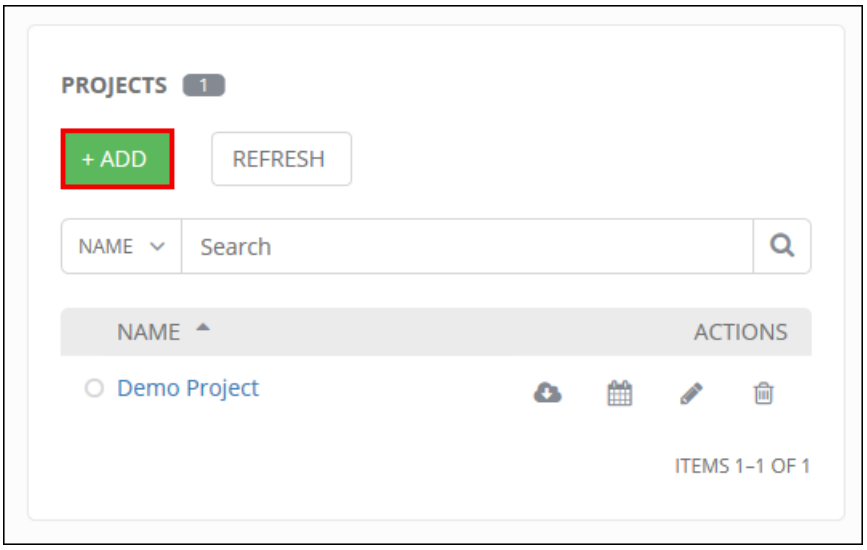
60. For the user name, type **admin**, and then **provide** the **admin password** you provided when you launched the Azure Quickstart template and then **Click** on **SIGN IN**.

61. Now you will be directed to the Ansible Tower Dashboard.



62. Select **PROJECTS** from the dashboard menu.

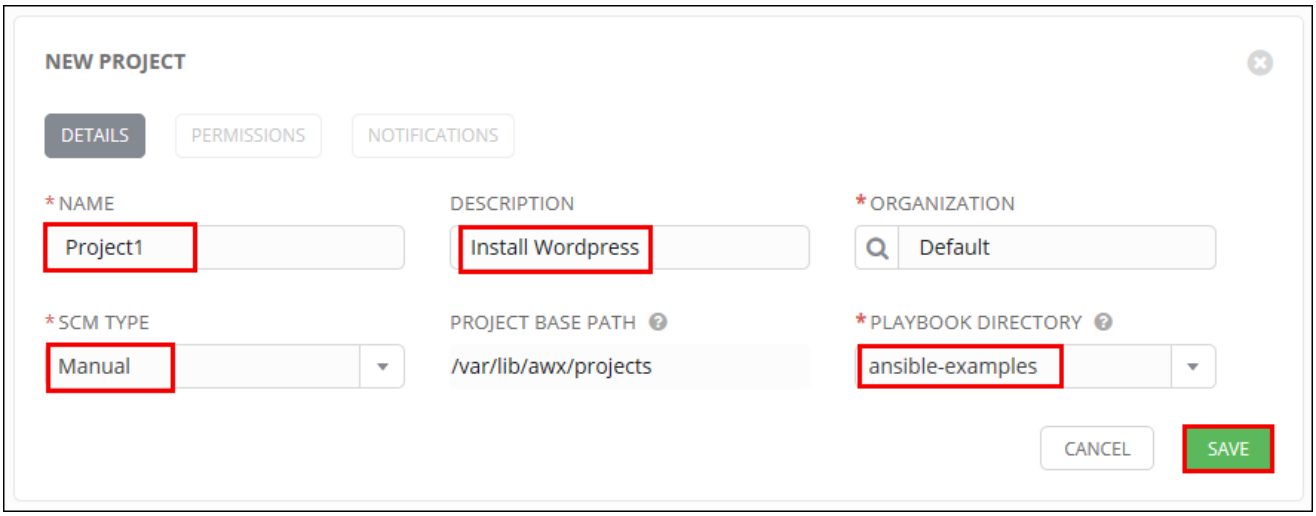
63. **Create** a new project by clicking the + ADD button, which opens the **NEW PROJECT** window.



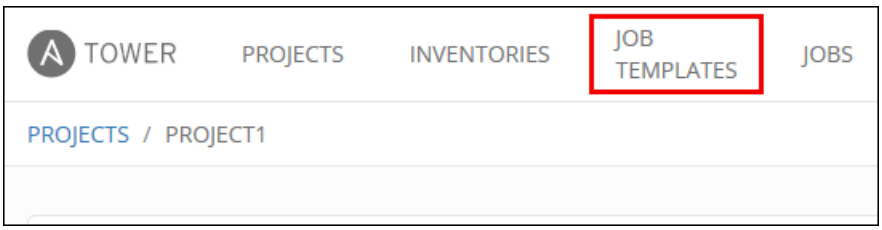
64. A **Enter** the **following details** into the NEW PROJECT Section, and click **Launch**.

- **NAME**: Project1
- **DESCRIPTION**: Install Wordpress
- **SCM TYPE**: Select **Manual**
- **PLAYBOOK DIRECTORY**: Select **ansible-examples**

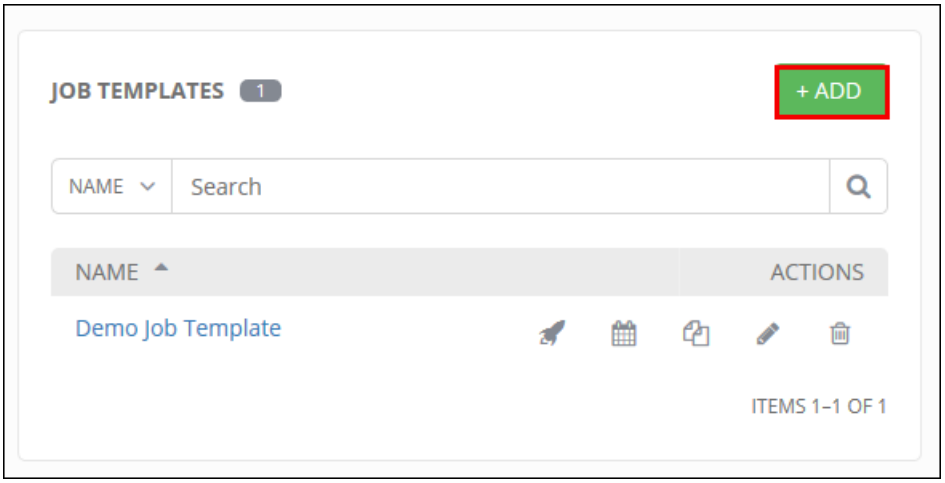
  And then **Click Save.**



65. Select **JOB TEMPLATES** from the dashboard menu.



66. **Create** a new job template by clicking the + ADD button, which opens the **CREATE JOB TEMPLATE** window.

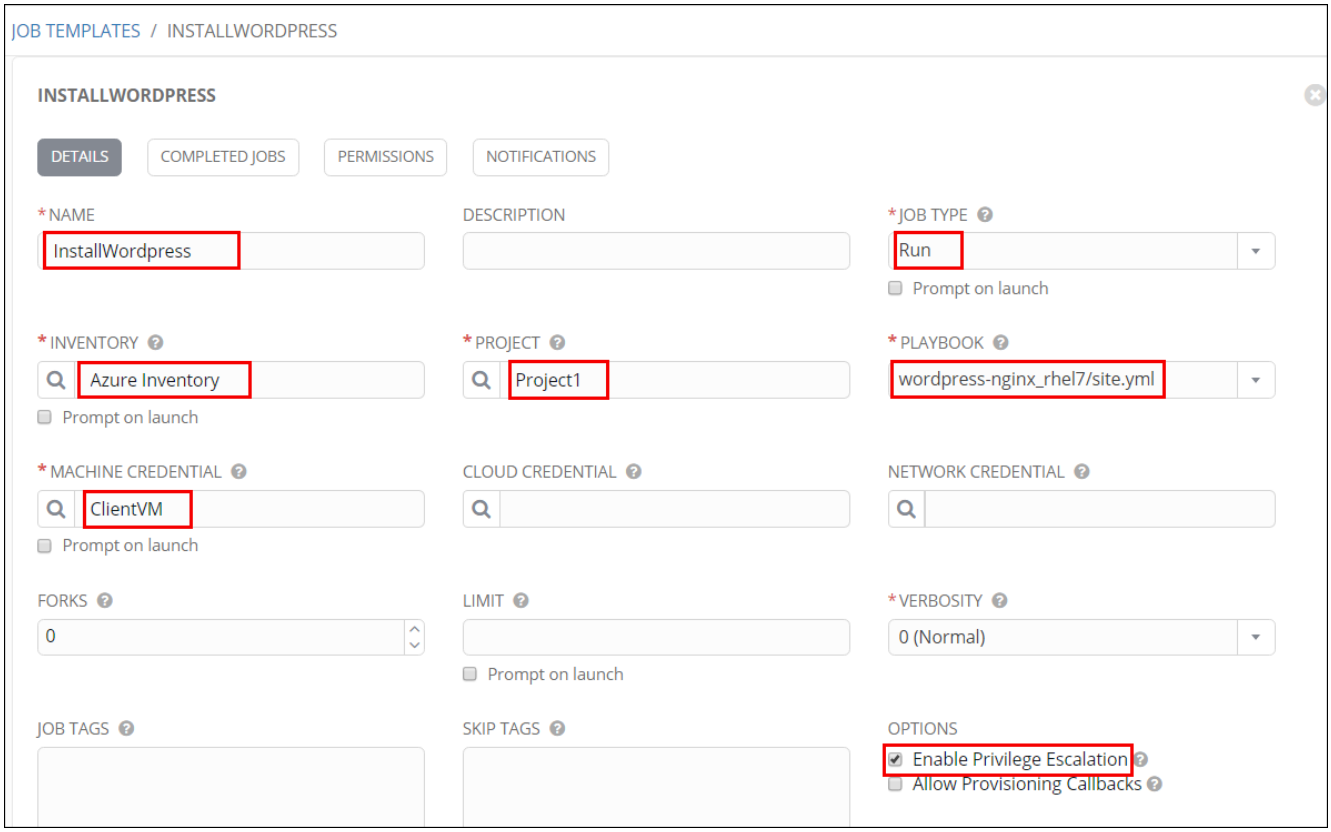


67. **Enter** the **following details** into the Create Job Template Section, and click **Save**.

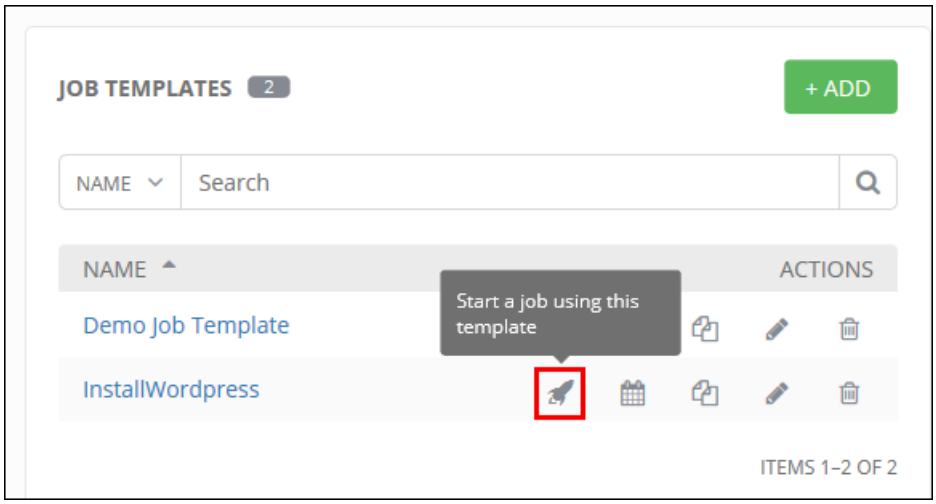
- **NAME**: InstallWordpress
- **JOB TYPE**: Run
- **INVENTORY**: Azure Inventory
- **PROJECT**: Project1
- **PLAYBOOK**: Select wordpress-nginx_rhel7/site.yml

- **MACHINE CREDENTIAL**: ClientVM
- Under Options**,** select **Enable Privilege Escalation**

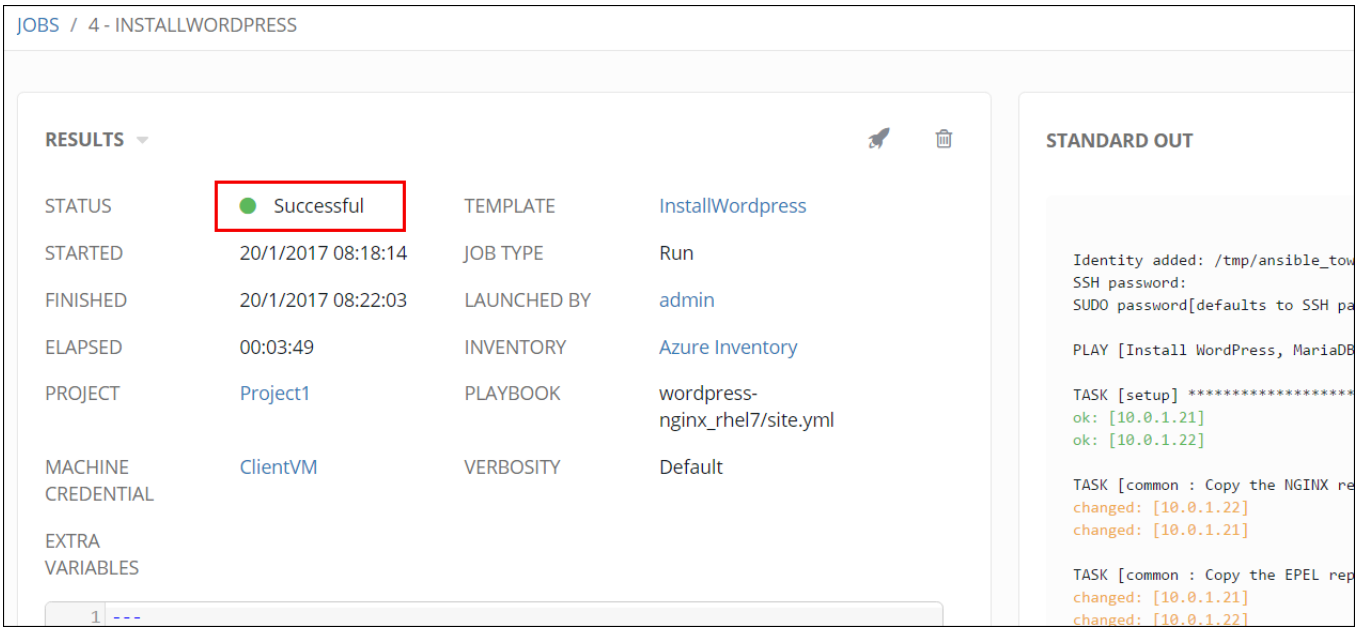
  And then **Click Save.**



68. Now **start** a **job** by using the created Job template by **clicking** the launch icon. Now you will be directed to the Results Page and you can see the outputs in the Standard Out section.



69. Once the job is completed, you can **check** the **status** in Results Section.



70. Now to **verify** that **wordpress** is **installed** on both Client Virtual Machines and is accessible on port 80, open a new tab in browser and copy the public ip of client 01 vm and public ip of client 02 vm and hit enter key.
71. The Wordpress installation page will come up if successfully installed.