**Static Host Inventory File**

In **Ansible**, a static inventory file is a plain text file that contains a list of managed hosts declared under a host group using either hostnames or IP addresses. A host group name is enclosed in square brackets i.e [group name]. The managed host entries are later listed below the group name, each on its own line. As discussed earlier, the hosts are listed using either hostnames or IP addresses.

**[group name]**

Host A ip\_address

Host B ip\_address

Host c ip\_address

For purposes of illustration, we shall create a static inventory file.

# mkdir test\_lab && cd test\_lab

# vim hosts

Static Inventory File

**[webservers]**

173.82.115.165

**[database\_servers]**

173.82.220.239

**[datacenter:children]**

webservers

database\_servers

Save the file and exit.

As you can see in the inventory file above, we have created 2 host groups: **webservers** and **database\_servers**. Also, we have created an additional group called **datacenter** that includes a group of host groups denoted by ': children' suffix as seen above.

Ansible also allows groups of hosts to be placed under a group name. In the inventory file above, the **webservers** and **database\_servers** groups have been placed under the **datacenter**.

**NOTE**: It’s not mandatory to place managed hosts in a host group. You can simply list them using their hostnames or IP addresses for example.

173.82.202.239

172.82.115.165

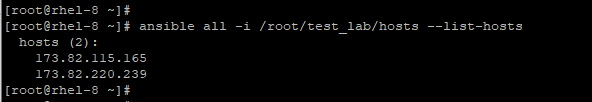
load\_balancer.pnl.com

Let’s now use a few Ansible commands for referencing the host inventory file. The basic syntax for inventory management is as shown.

$ ansible {host-pattern} -i /path/of/inventory/file --list-hosts

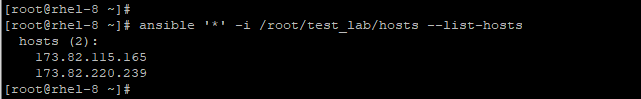
For example,

$ ansible all -i /root/test\_labs/hosts --list-hosts

[](https://www.tecmint.com/wp-content/uploads/2019/11/List-Ansible-Hosts-from-Inventory-File.png)List Ansible Hosts

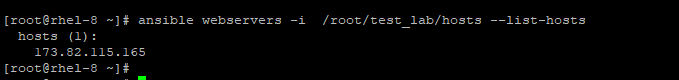
Alternatively, you can use the wildcard character \* to replace ‘all’ argument.

$ ansible \* -i /root/test\_labs/hosts --list-hosts

[](https://www.tecmint.com/wp-content/uploads/2019/11/List-Ansible-Hosts.png)List Ansible Hosts Using Wildcards

To list hosts in a group, specify the host group in the place of host-pattern.

$ ansible webservers -i /root/test\_labs/hosts --list-hosts

[](https://www.tecmint.com/wp-content/uploads/2019/11/List-Ansible-Hosts-in-Group.png)List Ansible Hosts in Group

**Dynamic Host Inventory File**

In containerization world where autoscaling is enable, node can come and go down at any point of time, so it’s very difficult to manage static inventory, so we have runtime inventory called dynamic inventory which manage run time data.

All the major cloud provider provide a way to configure the dynamic inventory by using(python/shell scripting)

**Conclusion**

In this article, we have demonstrated how to create both static and dynamic inventories. In summary, a static inventory file is a plain text file containing a list of managed hosts or remote nodes whose numbers and IP addresses remain fairly constant.

On the other hand, a dynamic host file keeps changing as you add new hosts or decommission old ones. The IP addresses of hosts are also dynamic as you stop and start new host systems. We do hope that you found this tutorial informative.