

Demo: **Automate NetApp with Ansible**

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Ansible – NetApp Automatisierung, 21.08.2025



Ansible – NetApp Automation

- Demo-Code:
https://github.com/rk-it-at/netapp_demo
- Requirements:
 - **ansible-core** Version \geq 2.14
 - **netapp.ontap** Collection
- Documentation:
 - <https://galaxy.ansible.com/ui/repo/published/netapp/ontap/docs/>
 - <https://github.com/ansible-collections/netapp.ontap/tree/main>



Ansible – NetApp Automation

Automate the deployment and management of automation

Your entire IT footprint

Do this...

Orchestrate Manage configurations Deploy applications Provision / deprovision Deliver continuously Secure and comply

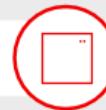
On these...



Firewalls



Load balancers



Applications



Containers



Virtualization platforms



Servers



Clouds



Storage



Network devices



And more ...

Source: https://github.com/ansible/workshops/blob/devel/decks/ansible_rhel.pdf

Demo Infrastructure

| Function | Version | IP Address |
|-----------------------------|-----------|-----------------|
| VMware ESXi | 7.0.3 | 192.168.122.198 |
| ONTAP Select | 9.16.1 | 192.168.122.200 |
| Data Interface (NFS) | | 192.168.122.202 |
| Ansible Development | Fedora 42 | 192.168.122.166 |
| Ansible Automation Platform | 2.5-16 | 192.168.122.79 |

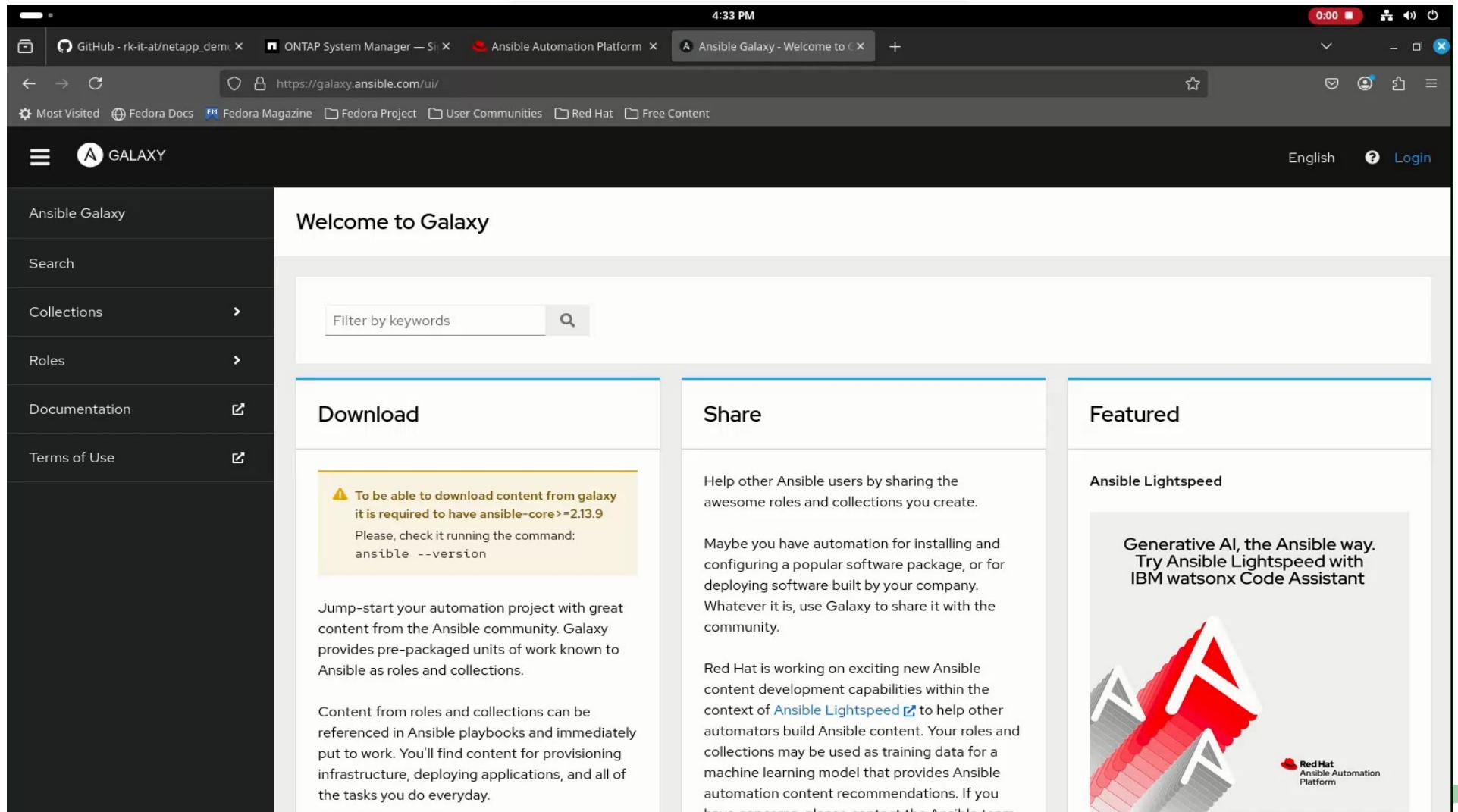


Demo 0: Documentation

- Getting started with NetApp automation
 - <https://galaxy.ansible.com/ui/repo/published/netapp/ontap/docs/>
 - <https://forum.ansible.com/>
 - <https://www.netapp.com/devops/ansible/>
 - https://docs.redhat.com/en/documentation/red_hat_ansible_automation_platform/2.5



Demo 0: Documentation

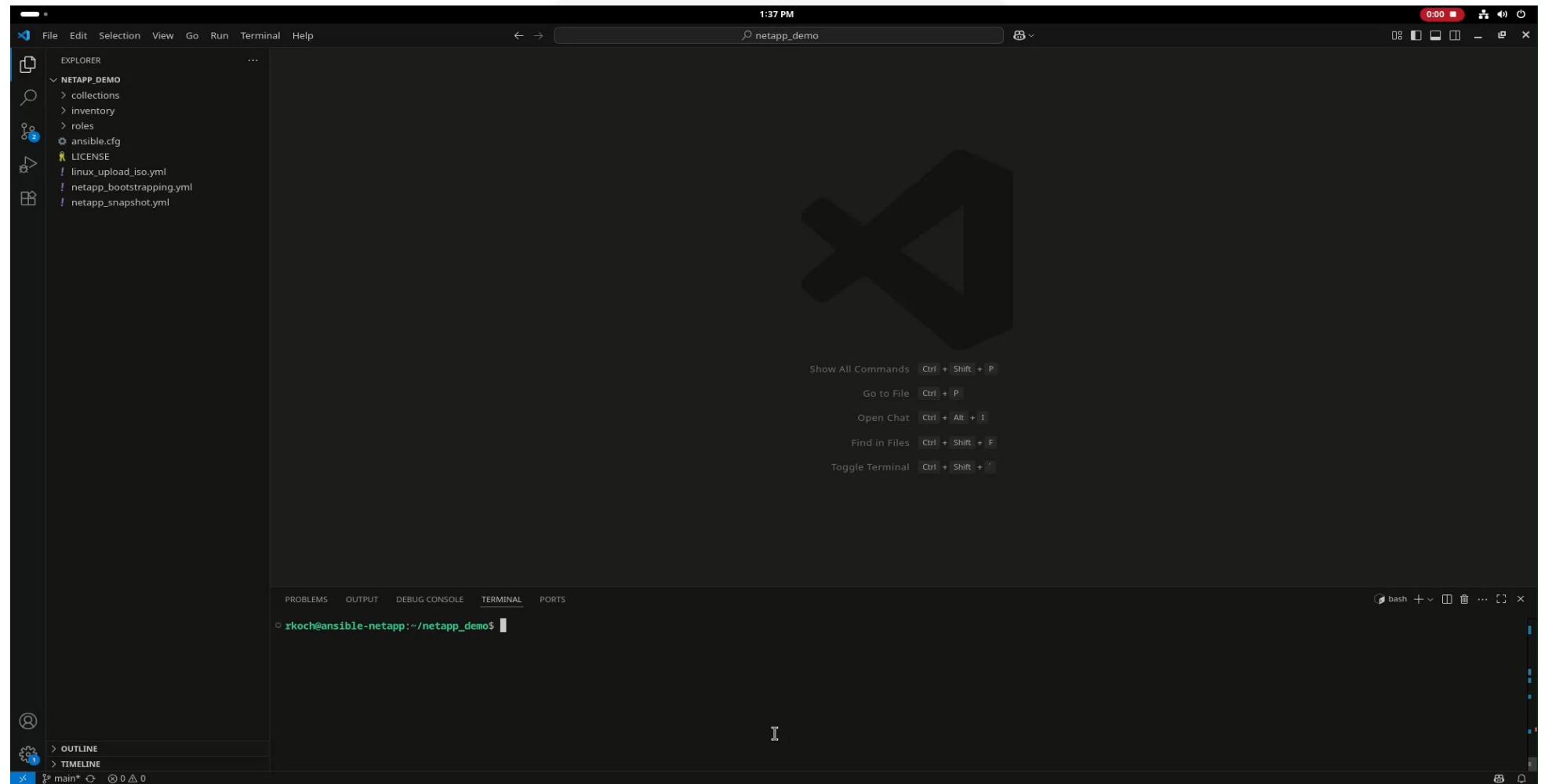


The screenshot shows a web browser window with the Ansible Galaxy interface. The title bar indicates it's 4:33 PM. The address bar shows the URL <https://galaxy.ansible.com/ui/>. The page header includes the Ansible Galaxy logo, a navigation menu with links to GitHub, ONTAP System Manager, Ansible Automation Platform, and Ansible Galaxy, and language selection for English. The main content area is titled "Welcome to Galaxy". It features a sidebar with links for "Ansible Galaxy", "Search", "Collections", "Roles", "Documentation", and "Terms of Use". The main content is divided into three sections: "Download", "Share", and "Featured". The "Download" section contains a warning about ansible-core version requirements and a description of what Galaxy provides. The "Share" section describes how users can share their own roles and collections. The "Featured" section highlights "Ansible Lightspeed" and "Generative AI, the Ansible way. Try Ansible Lightspeed with IBM Watsonx Code Assistant". A Red Hat logo and the text "Red Hat Ansible Automation Platform" are visible in the bottom right corner.

Demo 1: Bootstrapping

- Configure basic settings:
 - DNS
 - NTP
 - Login Banner

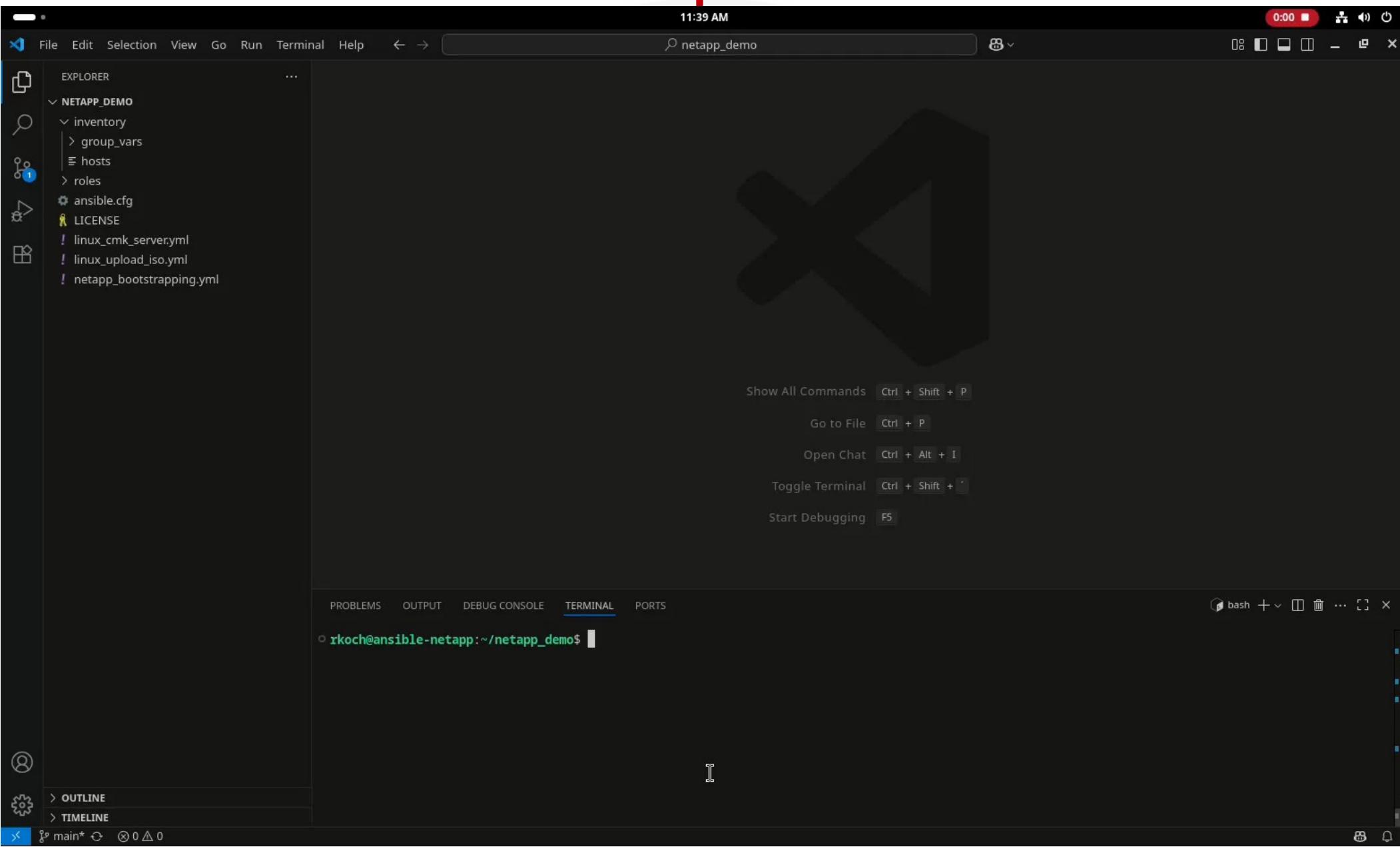
Demo 1: Bootstrapping



Demo 2: Host specific overrides

- Set different DNS server on host demo-01

Demo 2: Host specific overrides

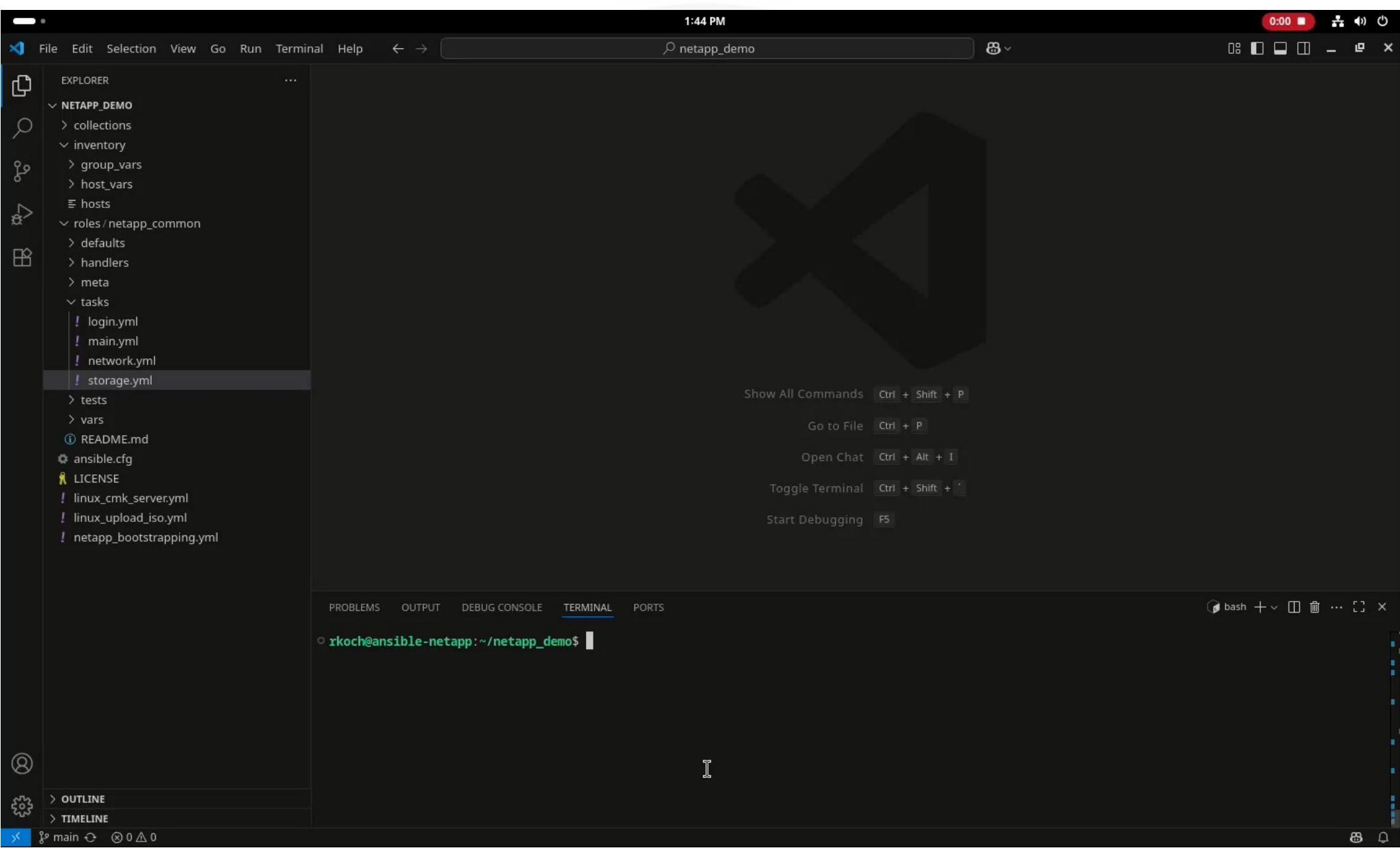


Demo 3: NFS Share

- Configure NFS Share:
 - Aggregate / Tier
 - Storage VM
 - Data Interface
 - Volume
 - Export Policy
- Allow access for:
 - VMware ESXi
 - Ansible Automation Platform



Demo 3: NFS Share



The screenshot shows the Visual Studio Code (VS Code) interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** netapp_demo
- Activity Bar:** Explorer, Search, Problems, Task, Terminal, Ports.
- Left Sidebar (Explorer):** Shows the file structure of the "NETAPP_DEMO" repository:
 - collections
 - inventory
 - group_vars
 - host_vars
 - hosts
 - roles / netapp_common
 - defaults
 - handlers
 - meta
 - tasks
 - ! login.yml
 - ! main.yml
 - ! network.yml
 - ! storage.yml
 - tests
 - vars
 - README.md
 - ansible.cfg
 - LICENSE
 - linux_cmk_server.yml
 - linux_upload_iso.yml
 - netapp_bootstrapping.yml
- Bottom Status Bar:** bash + x
- Terminal:** Shows the command prompt: rkoch@ansible-netapp:~/netapp_demo\$

Demo 4: Compliance

- Ensure common settings are configured every day:
 - DNS
 - NTP
 - Login Banner
 - Storage Configuration

Demo 4: Compliance

1:54 PM 0:00

GitHub - rk-it-at/netapp_demo × ONTAP System Manager — V: Ansible Automation Platform × +

https://192.168.122.79/overview

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Red Hat Ansible Automation Platform admin

Overview

Automation Execution Automation Controller

Jobs

Templates

Schedules

Projects

Infrastructure

Topology View

Inventories

Hosts

Instance Groups

Instances

Execution Environments

Credentials

Credential Types

Administration

Automation Analytics

Welcome to the Ansible Automation Platform

Empower, automate, connect: Unleash possibilities with the Ansible Automation Platform.

Resource Counts

- 4 Hosts ■ 4 Ready
- 2 Projects ■ 2 Ready
- 2 Inventories ■ 2 Synced

Job Activity

Past month All job types View all Jobs



9 Success 1 Error 8 Failed

Jobs Recently finished jobs View all Jobs

| Name | Status |
|------|-----------------|
| N/A | ONTAP Inventory |

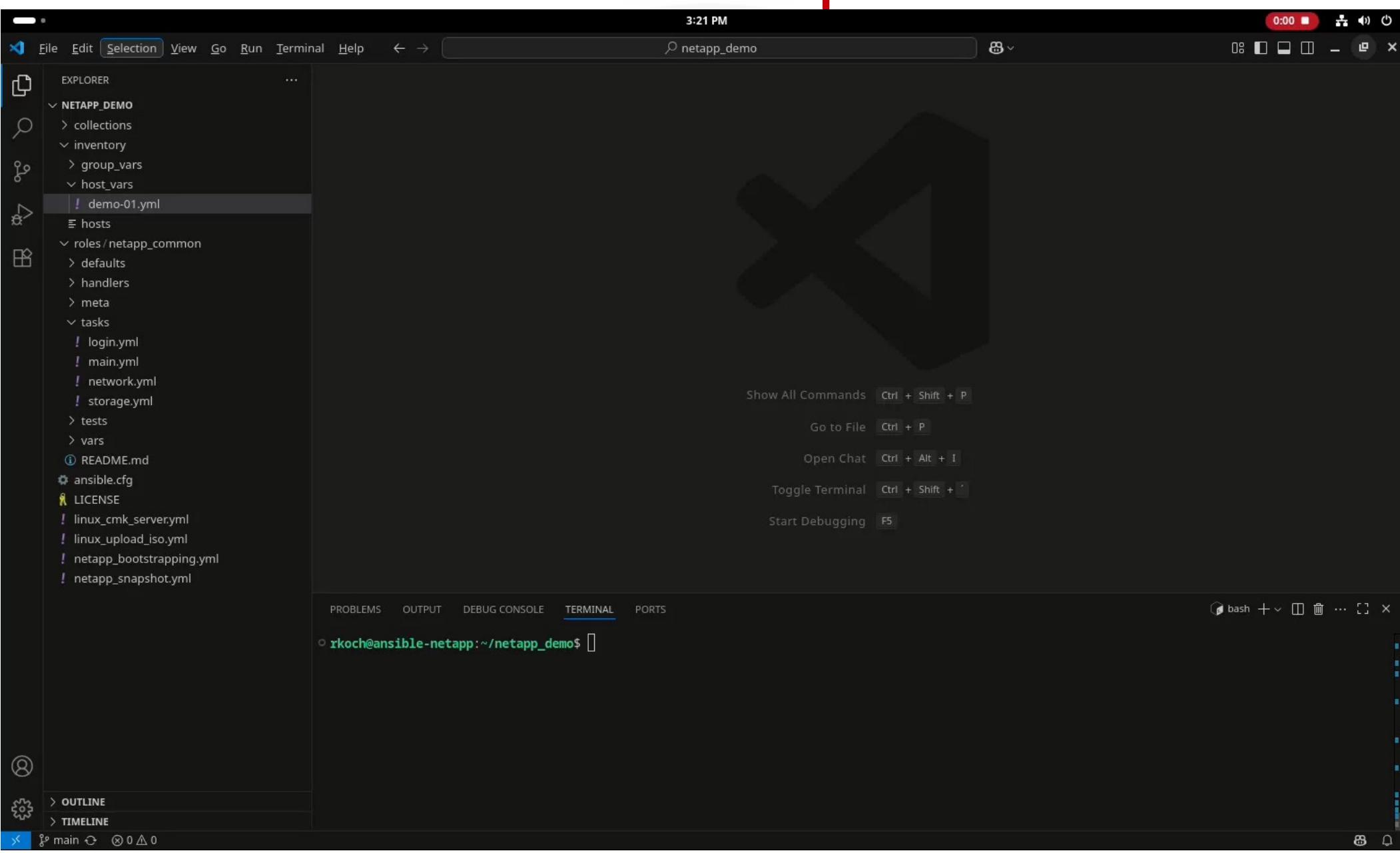
Projects Recently updated projects View all Projects

| Name | Status |
|---------------------|---------|
| CMX-Cloud-Inventory | Success |

Demo 5: Snapshots

- Allow Application Owner taking snapshots of NetApp Volumes

Demo 5: Snapshots



The screenshot shows the Visual Studio Code (VS Code) interface with a dark theme. The left sidebar contains the Explorer view, which lists the contents of a directory named 'NETAPP_DEMO'. The 'demo-01.yml' file is currently selected. Other files and folders visible include 'collections', 'inventory', 'group_vars', 'host_vars', 'roles/netapp_common', 'defaults', 'handlers', 'meta', 'tasks', 'tests', 'vars', 'README.md', 'ansible.cfg', 'LICENSE', and several YAML files like 'linux_cmk_serveryml', 'linux_upload_iso.yml', 'netapp_bootstrapping.yml', and 'netapp_snapshot.yml'. The main workspace shows a large 'X' icon, likely representing a terminal or a placeholder for code. The bottom navigation bar includes tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL (which is currently active), and PORTS. A terminal window at the bottom shows the command prompt: 'rkoch@ansible-netapp:~/netapp_demo\$'. The status bar at the bottom displays the file name 'main' and other system information.

More use cases

- Possible use cases for Ansible automation:
 - Change passwords based on company requirements
 - Update ONTAP
 - Configure authentication (LDAP, SAML,...)
 - Increase storage (Volume + Filesystem in Linux/Windows/VMware)
 - Auto-update documentation / asset database
 - Add NetApp to monitoring systems
 - ...



Summary

- Easy task to automate NetApp systems
- Demo examples:
 - Bootstrapping
 - Overrides for specific hosts
 - NFS Share
 - Compliance
 - Snapshot self service

Summary

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**Thanks a lot for
your attention**

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