**Project and Job Management in Ansible Tower**

[Video description begins] *Topic title: Project and Job Management in Ansible Tower. Your host for this session is Niranjan Pandey.* [Video description ends]

The objective of this video is to demonstrate the steps involved in creating projects and managing jobs using Ansible Tower.

[Video description begins] *A Login page for RedHat Ansible Tower is open. It has input fields for Username and Password. A Sign In button is present at the bottom.* [Video description ends]

After installing Ansible and using the license, you have to go and you have to log in to your Ansible Tower. To do that, you will specify the IP address. Once you'll specify the IP address, it will launch login page. You have to go and you have to specify the user ID and the password.

[Video description begins] *For Username, he types admin. He then enters a password.* [Video description ends]

After specifying your user ID and password, we'll click on Sign In. Once you'll click on Sign In, it will launch the Dashboard. Now, our next objective is to go and plan the project.

[Video description begins] *An Ansible Tower Dashboard opens. The navigation pane has the following headers: Views, Resources, Access, and Administration. In the center, at the top, the following details are displayed: Hosts, Failed Hosts, Inventories, etc. The page contains the following sections: Job Status, Recently Used Job Templates, and Recently Run Jobs. A graph is displayed for Job Status.* [Video description ends]

Project will have various components, let's start with creating inventory first. In order to create an inventory, we'll click on Inventories in the dashboard.

[Video description begins] *He clicks on Inventories. A page titled Inventories opens. At the top, there are two tabs: Inventories and Hosts. The Inventories tab is currently selected. Under it, a table is present with the following columns: Name, Type, Organization, and Actions. It contains an inventory named Demo Inventory. A + button is present above the table.* [Video description ends]

And we'll click on + symbol, which is there on the extreme right, and click on Inventory.

[Video description begins] *He clicks the + button. It expands to show two options: Inventory and Smart Inventory. A Create Inventory page appears. A section titled New Inventory is open. It has the following tab: Details, Permissions, Groups, Hosts, etc. The Details tab is currently selected. Under it, input fields are present for: Name, Description, Organization, Insights Credentials, and Instance Groups. Below the input fields, two options are present for Variables: YAML and JSON. YAML is currently selected. An Editor is present below it. Cancel and Save buttons are present at the bottom.* [Video description ends]

Once we'll click on Inventory, it will ask you a name. You can go and you can add name of the inventory. For example, we'll add demo2. We'll select the organization to be Default. If you want to specify some Insight Credentials, you can specify Insight Credentials. You can also specify Instance Group. And you can specify variables that will be declared in form of YAML or jSON. As of now, we'll click on Save.

[Video description begins] *The section title changes to demo2.* [Video description ends]

Once you'll click on Save, you'll find that it enables other buttons on the top. Will click on Hosts.

[Video description begins] *The Hosts tab opens. Run Command and + buttons are present at the top. The page displays the following text: Please Add Items To The List.* [Video description ends]

Once you'll click on Hosts, it will provide you capability of adding the host. We can go and we can add the host by clicking on Create a new host, which is indicated by + symbol in the extreme right of the browser.

[Video description begins] *He clicks the + button. A Create Host page appears. The following tabs are present at the top: Details, Facts, Groups, and Completed Jobs. The Details tab is currently selected. Under it, input fields are present for Host name and Description. Below the input fields, two options are present for Variables: YAML and JSON. YAML is currently selected. An Editor is present below it. Cancel and Save buttons are present at the bottom.* [Video description ends]

We have to go and we have to specify the host name. For example, let's take local host. You can also go and you can specify description if you wish to. Next, you can go and you can define variable, for example, we'll define variable as ansible\_connection: local.

[Video description begins] *In the editor, he types the following code on line 2: ansible\_connection: local.* [Video description ends]

We'll click on Save.

[Video description begins] *The section title changes to localhost.* [Video description ends]

Once you'll click on Save, you'll find that local host is defined as part of the current inventory.

[Video description begins] *He scrolls down the page. The demo2 section appears. The table displays the newly created host named localhost.* [Video description ends]

Next, we'll go and we'll create a project. In order to create a project, we'll come to the panel which is there in the extreme left, and under Resources we'll click on Projects.

[Video description begins] *The Projects page appears. A Projects section is open. It has a Search bar with a Key button. A + button is present on the extreme right. The page displays a project named Demo Project.* [Video description ends]

Once we'll click on Project, it will launch Project dashboard. We'll go and we'll click on + icon, which is there on the extreme right, and we'll specify the project name.

[Video description begins] *A Create Project page appears. There are two sections: New Project and Projects. Under New Project, the following tabs are present at the top: Details, Permissions, Job Templates, and Schedules. The Details tab is currently selected. Under it, input fields are present for: Name, Description, Organization, and SCM Type. Cancel and Save buttons are present at the bottom.* [Video description ends]

For example, let me go and specify demo2project. Give a description. You can go and you can specify the organization. You can also select an SCM type, which can be of different types. It can be Git, it can be Subversion, it can be a Red Hat insights, or it can also be Manual.

[Video description begins] *He clicks on the field for SCM Type. A list of options appears.* [Video description ends]

Let's go with Git.

[Video description begins] *A section titled Source Details appears below SCM Type. It has the following fields: SCM URL, SCM Branch/Tags/Commit, SCM Credential, and SCM Update Options. For SCM Update Options, the following options are present with checkboxes: Clean, Delete on Update, and Update Revision on Launch.* [Video description ends]

Once you'll go with Git, you have to specify SCM URL. We can also go and specify the branch and SCM credentials.

[Video description begins] *A URL appears in the field for SCM URL.* [Video description ends]

Since we are using public URL, we don't need to specify SCM credential. Let's go and select Update Revision On Launch.

[Video description begins] *The following field appears: Cache Timeout (seconds).* [Video description ends]

You can also go and specify the cache type. After specifying all the details, you'll click on Save.

[Video description begins] *The section title changes to demo2project.* [Video description ends]

Now, you have demoproject2 ready and it is in green.

[Video description begins] *He scrolls down the page to the Project section. The table now displays two project: demo2project and Demo Project.* [Video description ends]

Now, we need to go and add credentials. For that we need to go to Resource panel which is there on extreme left and click on Credentials.

[Video description begins] *A Credentials page appears. There is a section titled Credentials. It has a Search bar and a table with the following columns: Name, Kind, Owners, and Actions. It has the following credentials: Demo Credential and testcred. A + button is present above the table.* [Video description ends]

We can go and we can click on add, which is the + symbol. In order to create a credential, we have to specify a name to the credential.

[Video description begins] *A Create Credentials page appears. It has two sections: New Credential and Credentials. Under New Credentials, the following tabs are present at the top: Details and Permissions. The Details tab is currently selected. Under it it, input fields are present for: Name, Description, Organization, and Credential Type. Cancel and Save buttons are present below the input fields. In the input field for Name, he types TEstcred2.* [Video description ends]

And then you have to go and you have to specify the type. Let's go and specify type as Machine.

[Video description begins] *A section titled Type Details appears below Credential Type. It has the following fields: Username, Password, SSH Private Key, Signed SSH Certificate, Private Key Passphrase, Privilege Escalation Method, Privilege Escalation Username, and Privilege Escalation Password.* [Video description ends]

After specifying type, you can go and you can select organization. For example, we can go and we can specify default or you can click on search in order to search the organization.

[Video description begins] *He clicks the Search icon present for Organization. A pop-up box titled Select Organization appears. It contains an organization named Default. At the bottom, Cancel and Select buttons are present.* [Video description ends]

We'll select the Default and click on Select.

[Video description begins] *The screen shifts back to the Create Credentials page.* [Video description ends]

Now we have our new credentials ready, we can go and we can specify the user ID and the password.

[Video description begins] *Under the Type Details section, for Username, he types: admin. He then enters a password.* [Video description ends]

After specifying user ID and password, we can go and we can click on Save.

[Video description begins] *The section title changes to demo2TEstcred2.* [Video description ends]

You'll find that your credential is created, the kind is machine, owner is admin Default.

[Video description begins] *He scrolls down the page to the Credentials section. The newly created credentials named TEstcred2 appears in the table.* [Video description ends]

Now, our next objective is to go and create a job template. In order to create a job template, you'll click on Dashboard.

[Video description begins] *He shifts to the Dashboard page.* [Video description ends]

Once you'll click on Dashboard, you'll find hosts. Now 2 hosts are added, 2 inventories are there. You have 2 projects now, which we have created. We'll go and we'll click on Templates.

[Video description begins] *In the navigation pane, under Resources, he clicks on Templates. The Templates page appears. A section titled Templates is open. It has a Search bar with a Key button. It has a template named Demo Job Template.* [Video description ends]

You can clearly see that you have a Demo Job Template. In order to add template, we'll click on add button, which is there on the extreme right.

[Video description begins] *He clicks the + button. Two options appear: Job Template and Workflow Template.* [Video description ends]

You will select type of template that you want. We want job template so we'll click on Job Template.

[Video description begins] *A Create Job Template page appears. It has the following sections: New Job Template and Templates. Under New Job Template, the following tabs are present at the top: Details, Permissions, Add Survey, etc. The Details tab is currently selected. Under it, the following fields are present: Name, Description, Job, Job Type, Inventory, Project, etc. An editor is present below the input fields. Launch, Cancel and Save buttons are present here.* [Video description ends]

You have to go and you have to specify name to the template. For example, we'll say Demo2jobtemplate. You can specify description. You can select job type, I select Run here instead of Check.

[Video description begins] *He sets the job type as Run.* [Video description ends]

Then you have to go and you have to specify the inventory. We can click on the search in order to look for the inventory.

[Video description begins] *A pop-up box titled Select Inventory appears. It contains the following inventories with radio buttons: demo2 and Demo Inventory. Cancel and Select buttons are present at the bottom.* [Video description ends]

We have demo2 inventory, we'll click on Select.

[Video description begins] *The screen shifts back to the Create Job Template page. The field for inventory now reads demo2.* [Video description ends]

Similarly, you can go and you can select the project.

[Video description begins] *He clicks the search icon for Project. A pop-up box titled Select Project appears. It contains the following projects with radio buttons: demo2project and Demo Project. Cancel and Select buttons are present at the bottom.* [Video description ends]

We have demo2 project, we'll select demo2 project.

[Video description begins] *The screen shifts back to the Create Job Template page. The field for Project now reads demo2project.* [Video description ends]

After selecting demo2 project, you'll click on Choose a playbook.

[Video description begins] *He clicks on the field for Playbook. The following option appears: hello\_world.yml.* [Video description ends]

Now since we have used SCM, we can see all the playbooks which are part of that particular Git repository which we have added while creating the inventory. We'll select hello\_world.yml. You can go and you can select Credential, though it is optional. You can also select the log level, which is verbose.

[Video description begins] *He clicks on the field for Verbosity. A list of options appears.* [Video description ends]

We can go and we can select Normal or More Verbose. Let's keep the default.

[Video description begins] *He sets the Verbosity as 0 (Normal).* [Video description ends]

After specifying all the mandatory options, we can go and we can click on Save.

[Video description begins] *The section name changes to Demo2jobtemplate.* [Video description ends]

Now we have job template ready, we can clearly see that we have Demo2jobtemplate.

[Video description begins] *He scrolls down the page to show the Templates section. The table now has two templates: Demo2jobtemplate and Demo job Template.* [Video description ends]

In order to launch the job, you can go and you can click on the Launch to start the job using the current template. We click on Launch. Once you'll click on Launch, depending on the configuration, it will show you the details, that is status.

[Video description begins] *A page titled 8 - Demo2jobtemplate appears. It has the following sections: Details and Demo2jobtemplate. Under Details, the following information is displayed: Status, Started, Finished, etc. Under Demo2jobtemplate, an Editor is present.* [Video description ends]

Now it has started, it is running, it has executed the playbook successfully.

[Video description begins] *A set of code lines appears in the editor.* [Video description ends]

This is how you will create a project and you will execute a job. You have to wait until and unless you don't get successful message.

[Video description begins] *He points at Status under the Details section. It reads: Successful.* [Video description ends]

A screenshot of a computer

Description automatically generated