

Runbook for Ansible Tower Creation and An Example Playbook

1. Spin up an EC2 instance with AMI named “Red Hat Enterprise Linux 8 (HVM)”
2. Once it is up and running, login to the EC2 instance
3. Use below commands to install Ansible
 - a. `sudo dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm -y`
 - b. `sudo dnf install ansible -y`
4. Below commands are used download Ansible Tower file and Unzip
 - a. `yum install wget -y`
 - b. `wget https://releases.ansible.com/ansible-tower/setup/ansible-tower-setup-latest.tar.gz`
 - c. `tar xvf ansible-tower-setup-latest.tar.gz`
5. Please do a ‘ls’ to view which version of Ansible Tower got downloaded and update the version number in the below command
 - a. `cd ansible-tower-setup-<tower_version>`
6. Once you get into the Ansible that should look like below image

```
[root@ip-10-0-0-39 ansible-tower-setup-3.7.2-1]# ls
README.md  group_vars  inventory  rekey.yml  roles
backup.yml install.yml licenses  restore.yml setup.sh
[root@ip-10-0-0-39 ansible-tower-setup-3.7.2-1]#
```

7. We need to edit inventory file. Please follow below commands and instructions in setting up the password for the Ansible tower
 - a. `vi inventory`



```
[root@ip-10-0-0-39 ansible-tower-setup-3.7.2-1]#
[tower]
localhost ansible_connection=local

[database]

[all:vars]
admin_password=''
pg_host=''
pg_port=''

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

# Isolated Tower nodes automatically generate an RSA key for authentication;
# To disable this behavior, set this value to false
# isolated_key_generation=true
```

- b.
- c. We need to add password in the above specified places
- d. Esc .qw! to save the file

8. Our Ansible Tower pre-setup is completed. Lets install Ansible Tower from below command.

- a. **./setup.sh**
- b. Please wait Approx 5 to 10 Minutes and let the Ansible Tower installation gets completed.

9. Create an account in Redhat portal


- a. <https://www.redhat.com/wapps/ugc/register.html>

10. Once you create the account at Redhat portal. Please login to the below URL for subscriptions

- a. <https://access.redhat.com/management/subscriptions>

Your subscriptions should contain “[60 Day Evaluation of Red Hat Ansible Automation, Self-Supported \(100 Managed Nodes\)](#)”

- b. Reference Image:



Red Hat Customer Portal

Products & Services
Tools
Security
Community

Overview
Subscriptions
Systems
Cloud Access
Subscription Allocations
Contracts
Errata
Manage

Inventory

Filter by Subscription (Number, Name, SKU) or Contract Number

Active
Ready to Renew
Recently Expired
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Download CSV


Subscription Number	Subscription Name	Contract Number	Quantity	Start Date	End Date	Status
8378485	60 Day Evaluation of Red Hat Ansible Automation, Self-Supported (100 Managed Nodes)	12447346	1	2020-09-07	2020-11-05	Expiring in < 60 days Renew


Show 100 entries
Showing 1 to 1 of 1 entries






















































First
Previous
1
Next
Last


C.

11. Now we need to launch our Ansible Tower with Public IP of EC2 we launched on a Web Browser




Not Secure
54.188.159.113



Your connection is not private

Attackers might be trying to steal your information from **54.188.159.113** (for example, passwords, messages or credit cards). [Learn more](#)

NET::ERR_CERT_AUTHORITY_INVALID

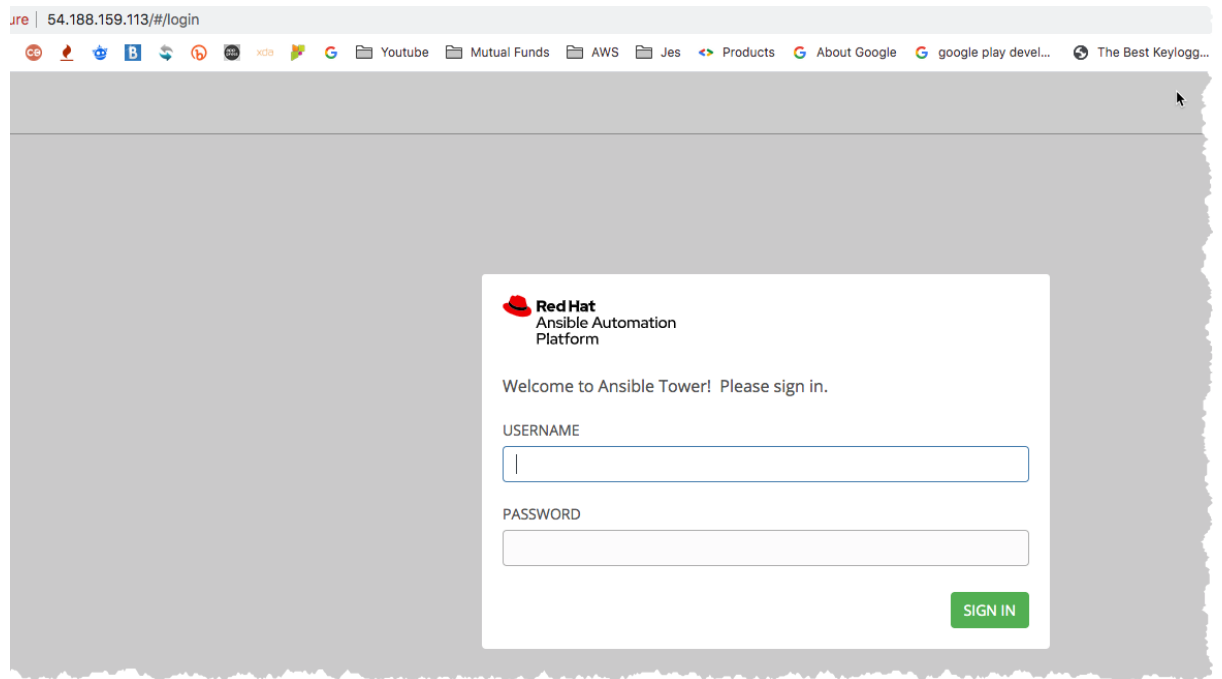
☐ Help improve security on the web for everyone by sending URLs of some pages that you visit, limited system information, and some page content to Google. [Privacy policy](#)

Hide advanced
Back to safety

This server could not prove that it is **54.188.159.113**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.

Proceed to 54.188.159.113 (unsafe)

12.



13.

14. Username : admin

15. Password : You entered in inventory file

16. Then you will get the below

TOWER LICENSE

Welcome to Ansible Tower! Please complete the steps below to acquire a license.

- 1 Please click the button below to visit Ansible's website to get a Tower license key.

REQUEST LICENSE

- 2 Choose your license file, agree to the End User License Agreement, and click submit.

* LICENSE

Upload a license file

BROWSE

No file selected.

OR

Provide your Red Hat customer credentials and you can choose from a list of your available licenses. The credentials you use will be stored for future use in retrieving renewal or expanded licenses. You can update or remove them in **SETTINGS > SYSTEM**.

USERNAME

PASSWORD

GET LICENSES

* END USER LICENSE AGREEMENT

This end user license agreement ("EULA") governs the use of the Ansible Tower software and any related updates, upgrades, versions, appearance, structure and organization (the "Ansible Tower Software"), regardless of the delivery mechanism.

1. License Grant. Subject to the terms of this EULA, Red Hat, Inc. and its affiliates ("Red Hat") grant to you ("You") a non-transferable, non-exclusive, worldwide, non-sublicensable, limited, revocable license to use the Ansible Tower Software for the term of the associated Red Hat Software Subscription(s) and in a quantity equal to the number of Red Hat

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TRACKING AND ANALYTICS

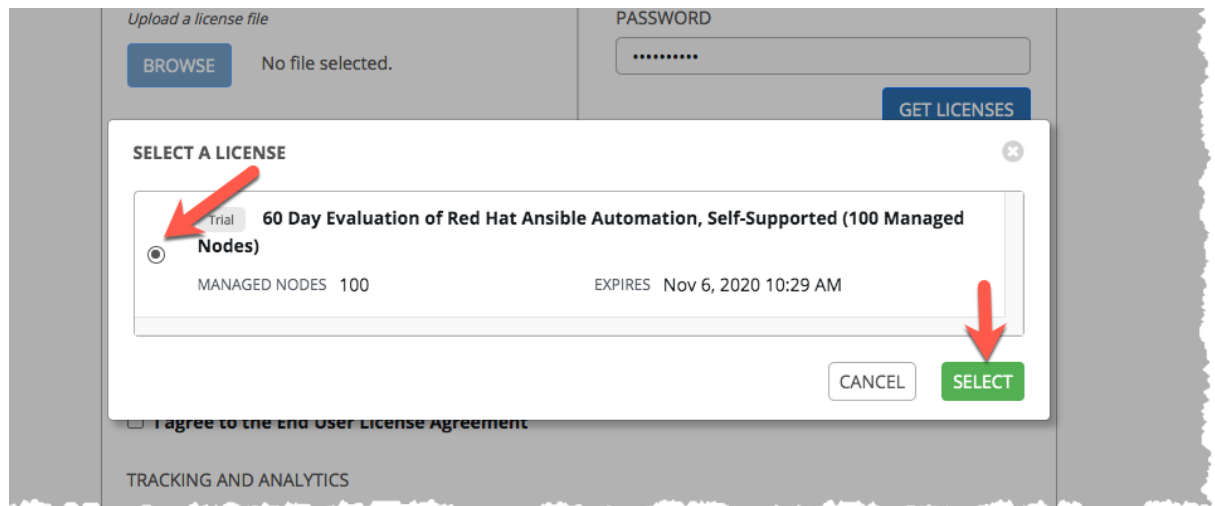
By default, Tower collects and transmits analytics data on Tower usage to Red Hat. There are two categories of data collected by Tower. For more information, see [this Tower documentation page](#). Uncheck the following boxes to disable this feature.

☒ **User analytics:** This data is used to enhance future releases of the Tower Software and help streamline customer experience and success.

☒ **Automation analytics:** This data is used to enhance future releases of the Tower Software and to provide Automation Analytics to Tower subscribers.

SUBMIT

18.



19.

Upload a license file

BROWSE No file selected.

PASSWORD

.....

GET LICENSES

SELECTED 60 Day Evaluation of Red Hat Ansible Automation, Self-Supported (100 Managed Nodes)

*** END USER LICENSE AGREEMENT**

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TRACKING AND ANALYTICS

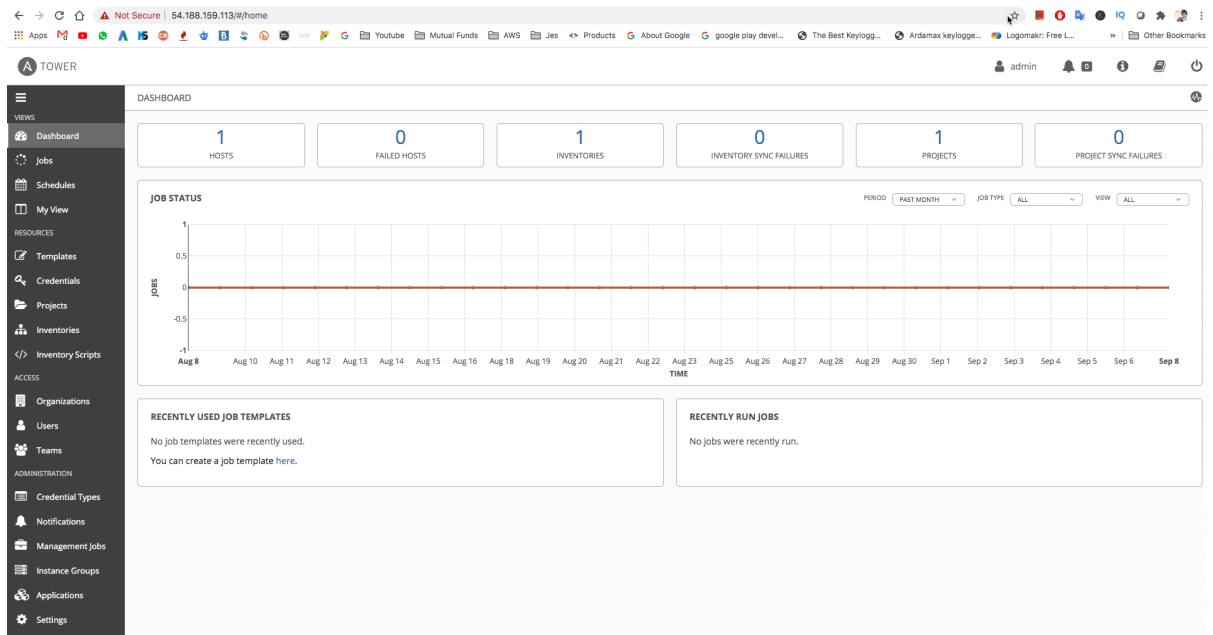
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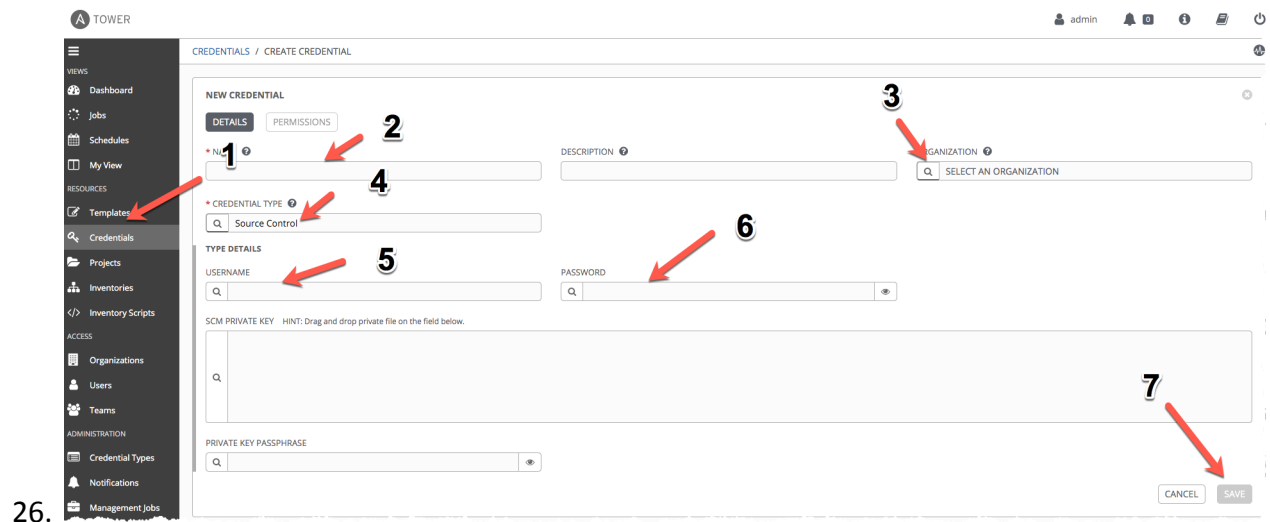
☒ **Automation analytics:** This data is used to enhance future releases of the Tower Software and to provide Automation Analytics to Tower subscribers.

SUBMIT

20. If the Ansible Tower installation is successful. Reference image is below



- 21.
22. Once we setup our Ansible Tower. Follow below instructions to create an example.
- 23.
24. Create a private repository in github and name it JJTechTower. Give it a Readme file name
 - a. CD to Desktop and create a folder name GithubSrc, clone the repository with git clone command to a folder on your local
 - b. Clone another repository which contains the code we will use \$ git clone https://github.com/tantuch19/JJTech-Bliss-Ansible-Tower.git
 - c. Use the below command to copy the contents of the file to your newly created repository.
\$ cp * /Users/susannekangnoh/Desktop/GitHubProjects/testtower
 - d. run git add ., git commit, git push (use git status in between to see the changes that are being made on each level)
 - i. git add . (make your untracked files to become tracked by git)
 - ii. git commit (committing the files so they can be pushed to a repository)
 - iii. git push (pushes everything to a repo)
 - e.
25. Set up Authentication. Ansible needs to authenticate into your github and it also needs to authenticate to your AWS account.
 - a. Go to credentials and click on the plus sign.
 - b. For Github give it the name Github-Repo, Organization=Default, Credential Type = Source Control (Enter the username and password to your github account) Click on Save and you should see the credentials added at the bottom.
 - c. For AWS: give it a name AWS-Authentication, Organization- Default), Credential type = Amazon Web services, Add Access key and Secret Access key. Save

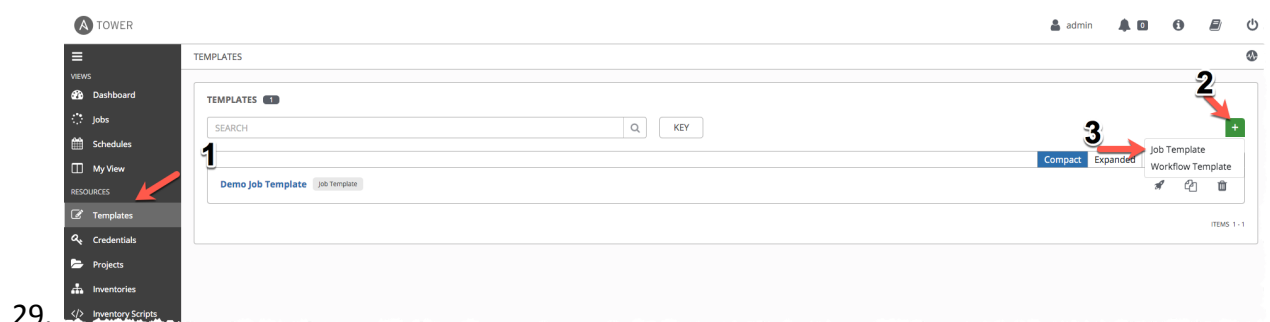


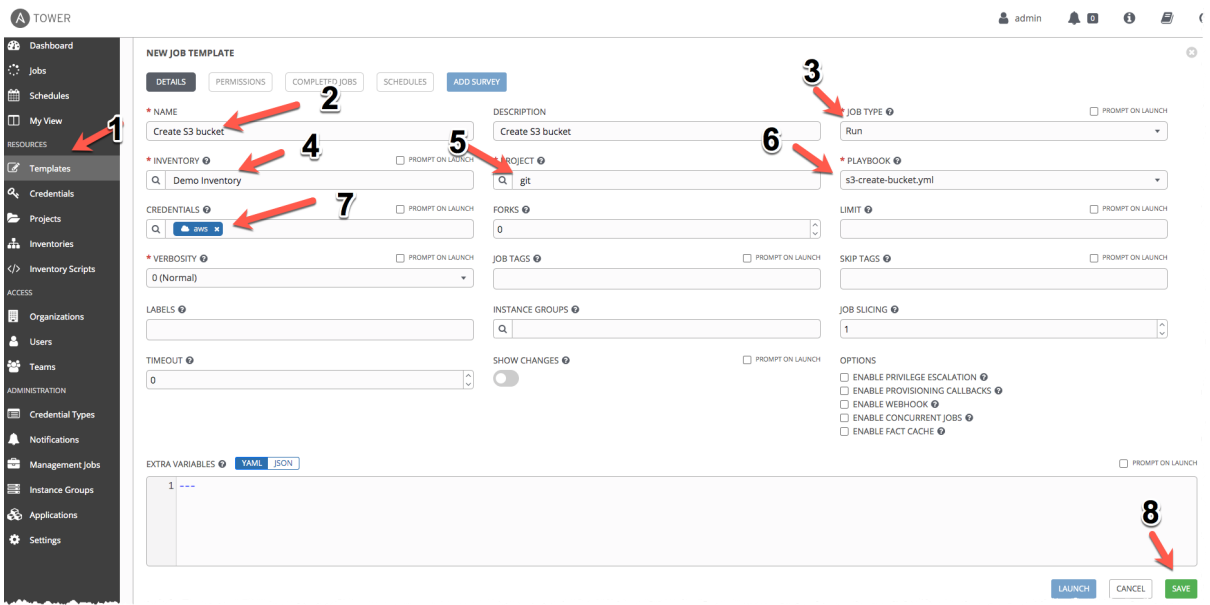
27. Set up a project: Go to projects and click on the plus sign to create a new project.

- Project Name - ec2-provisioning automation.
- SCM= Git.
- SCM url = your github repository url.
- SCM Credential = Select the credential you created fir github
- SCM update options = Select the first 3 and save

28. Create template: Go to templates and click on the plus sign select the job template and provide a template name.

- Inventory = Select the Demo or default inventory
- Project = Select the project that you created.
- Playbook = select the ec2.yml playbook. (if you did not set up the repo properly you will not see the right playbook)
- Credentials = Credential type should be AWS and the authentication credentials you created



30. 

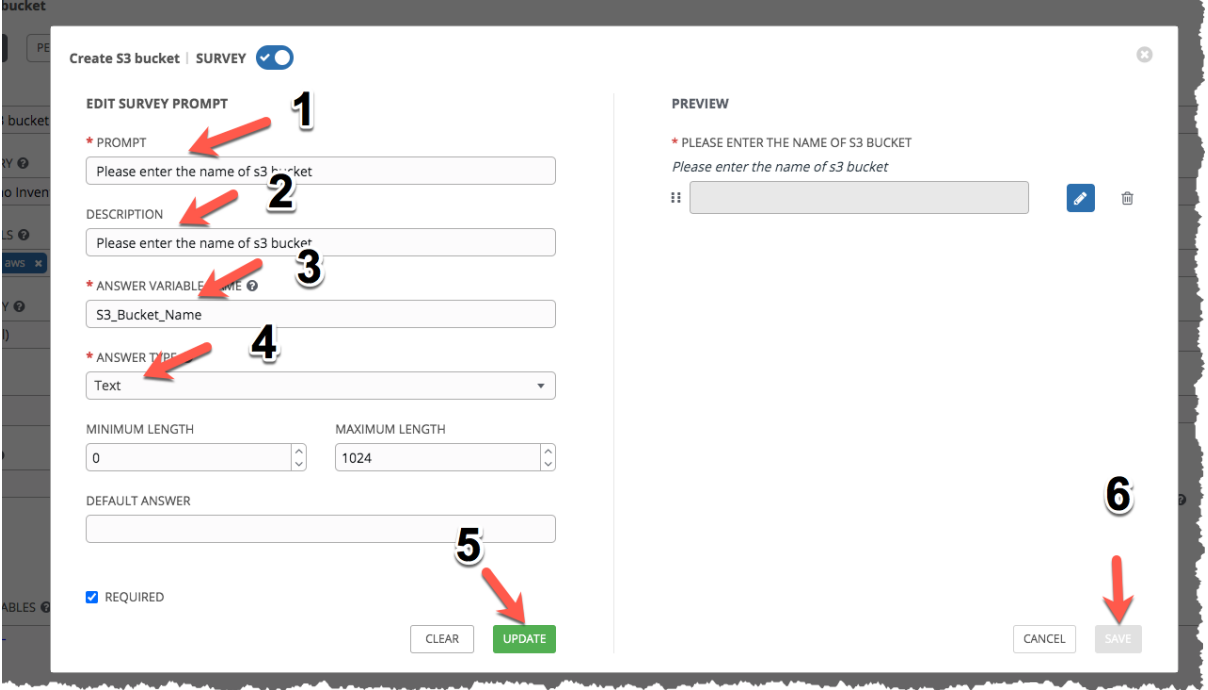
31. Once you save it we need to create survey. Click on Add survey. Enter each of the details below in the survey and click on Add

Prompt	Description	Answer Variable Name	Answer Type
Please choose your team		team	Multiplechoice single select BlissBatch DeveloperTeam, Testingteam
Please choose your security group		security_group	Multiple choice: BankEnd Restricted Core
Please choose an AMI		ami_type	Multi choice: Rhel Ubuntu Windows AmazonLinux
Please choose your Subnet		vpc_subnet_id	AZa AZb Azc
Please choose your instance role		instance_role	admin s3

Please enter the volume size		root_volume_size	Text
Enter the EC2 instance name		instance_name	Text
Please enter your Name or work email		created_by	Text
Please choose an instance type		instance_type	t2.micro t2.medium t2.large t2.small
Please provide the required owner tag		Owner	Text
Please provide a required app name tag		App_Name	Text
Please provide a required cost center tag		Cost_Center	Text
Please provide a required business unit tag		Business_Unit	Text

32. Create parameters (in US-East-1) using the below keys and enter the value as it applies in your environment.
- /JJTech/BlissBatch/AZa (value is subnet for AZa)
 - /JJTech/BlissBatch/AZb (value is subnet for AZa)
 - /JJTech/BlissBatch/Azc (value is subnet for AZa)
 - /JJTech/BlissBatch/AmazonLinux (value is amazon linux AMiID)

- e. /JJTech/BlissBatch/BackEnd (security groupID from the same VPC that has your subnets)
- f. /JJTech/BlissBatch/Core (security groupID from the same VPC that has your subnets)
- g. /JJTech/BlissBatch/Restricted (security groupID from the same VPC that has your subnets)
- h. /JJTech/BlissBatch/Rhel (AMI)
- i. /JJTech/BlissBatch/Ubuntu (AMI)
- j. /JJTech/BlissBatch/Windows (AMI)
- k. /JJTech/BlissBatch/admin (Enter any role name in your account as a value)
- l. /JJTech/BlissBatch/keyname (enter any keypair)

33. 

34. Once you create the survey please launch the template and enter name of the s3 bucket to create

For ec2 demo please download below playbook

<https://jjtech-trainings.s3-us-west-2.amazonaws.com/ansible-tower/create-ec2.yml>