NIDHI SHARMA (BATCH-7)

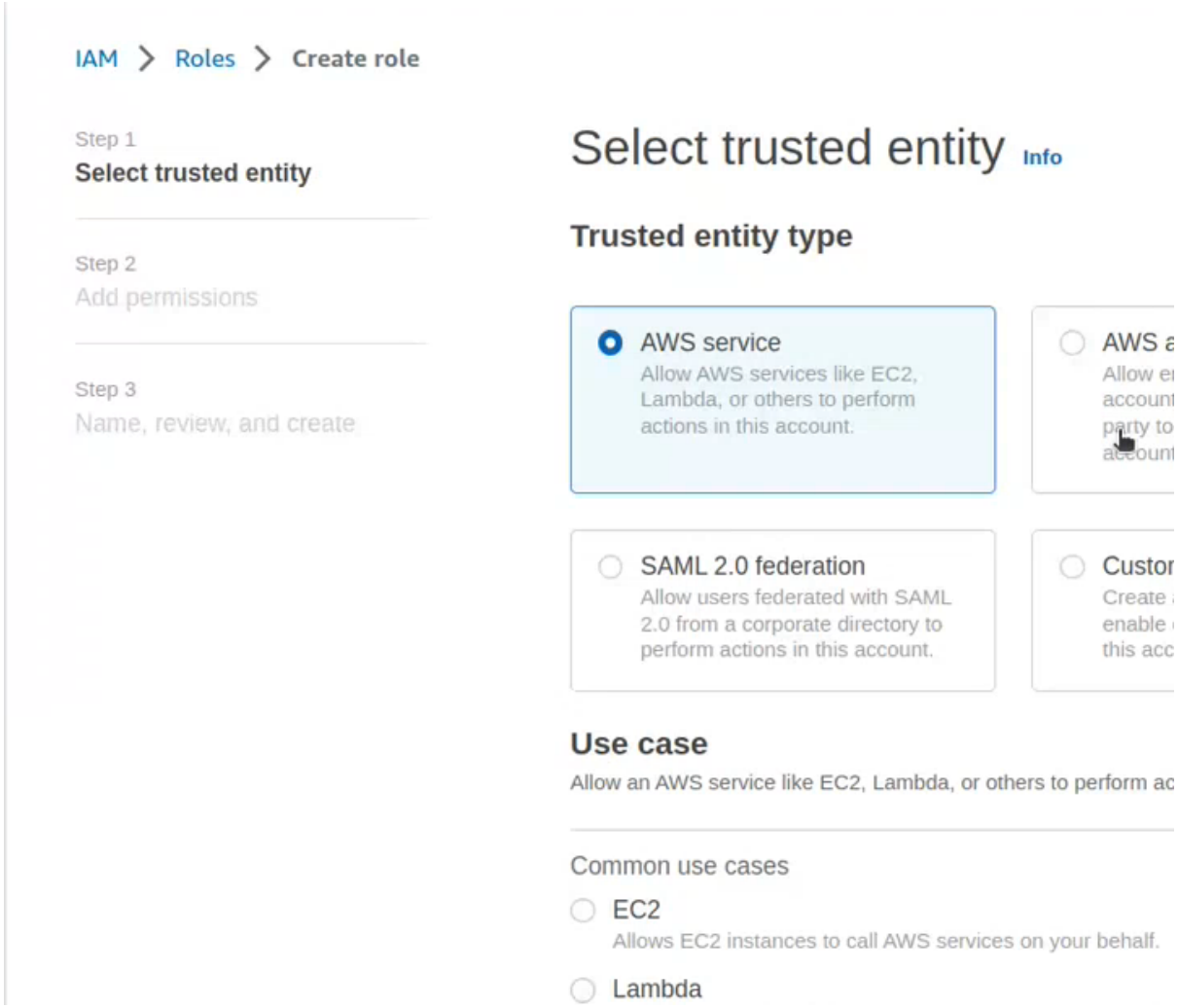
SSM (Simple System Manager)

- System manager is a central hub to control and view your entire AWS infrastructure.
- System manager includes:
  - ✓ Session manager
  - ✓ Run Command
  - ✓ Patch Manager
  - ✓ State Manager
- In order to Manage all the different nodes or all the instances you have a single place and that is System manager.

➢ Session manager:

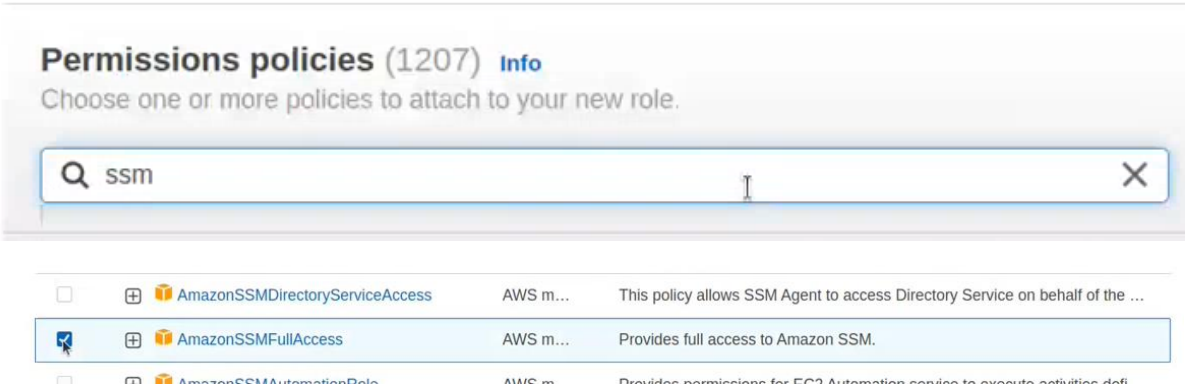
- ✓ Session Manager is a fully managed AWS Systems Manager capability. With Session Manager, you can manage your Amazon Elastic Compute Cloud (Amazon EC2) instances, edge devices, on-premises servers, and virtual machines (VMs).
- ✓ Some Pre_Required things that are important to do is, we first need to make a particular IAM role and they are global. So no matter in which region you will make your EC2 you can us eyour IAM role.

Go to IAM > Roles > Create role > Ckeckin AWS service radio button > Select use case as EC2 > Click Next

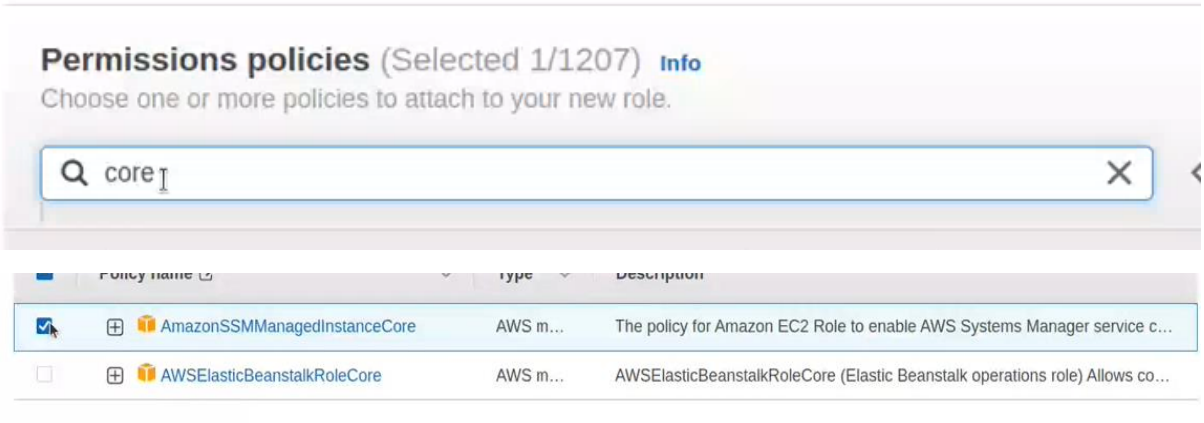


✓ Step 2 is to add Permissions

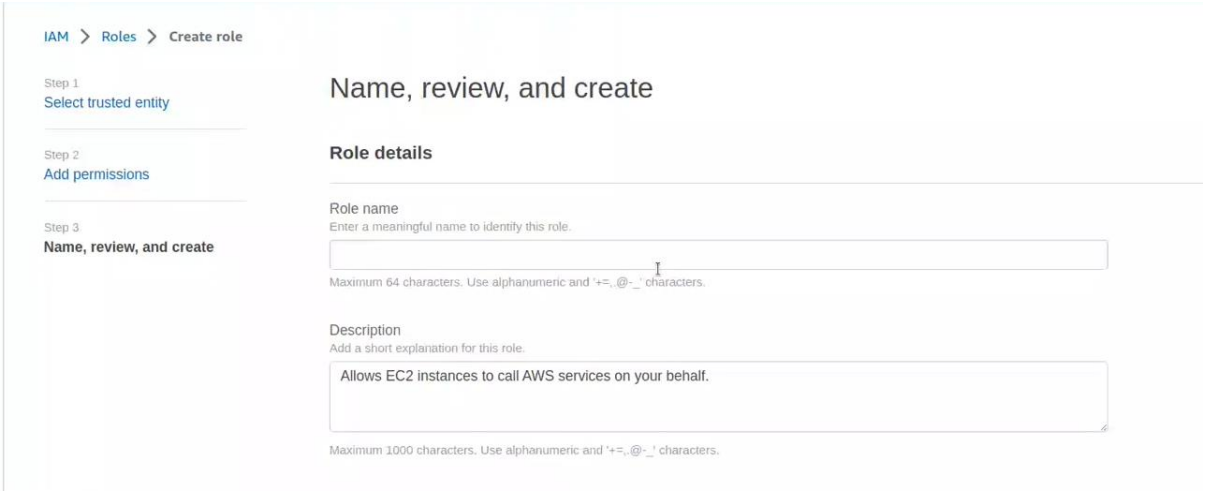
Permissions Policy > Type SSM > Select AmazoneSSmFullAccess



To add another Policy type Core > AmazoneSSMManagedInstanceCore > Click Next

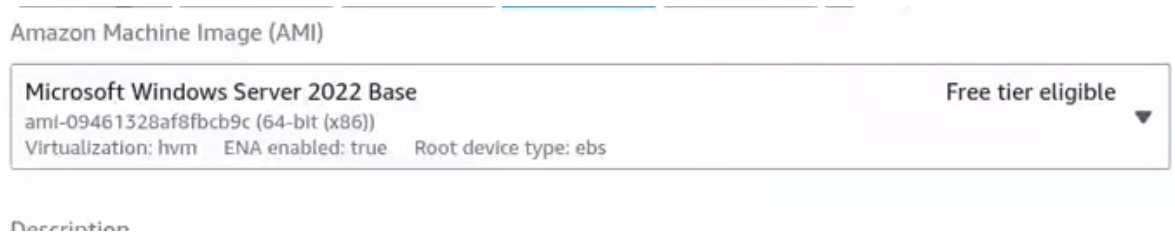


- ✓ Now step 3 is "Name, Review, Create", Here you have to give the tags and Click on Create Role.



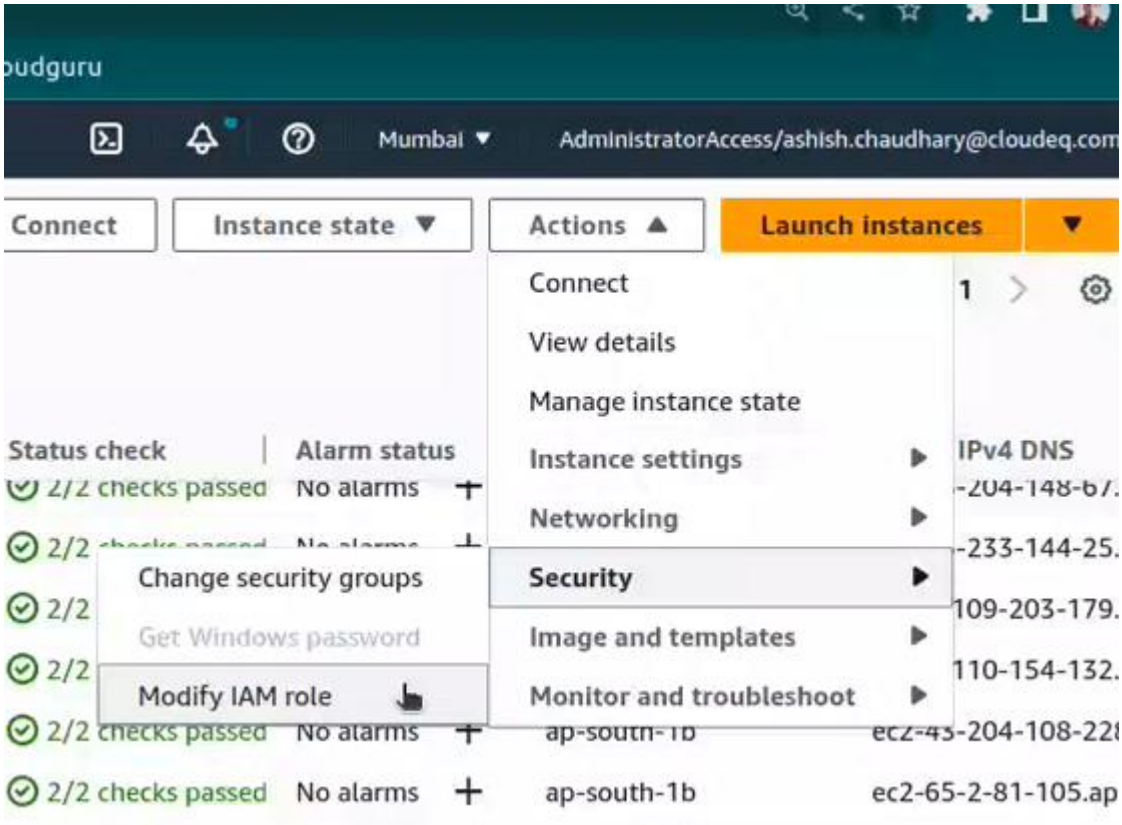
- ✓ After creating this role goto your EC2 and Create EC2 Instance.

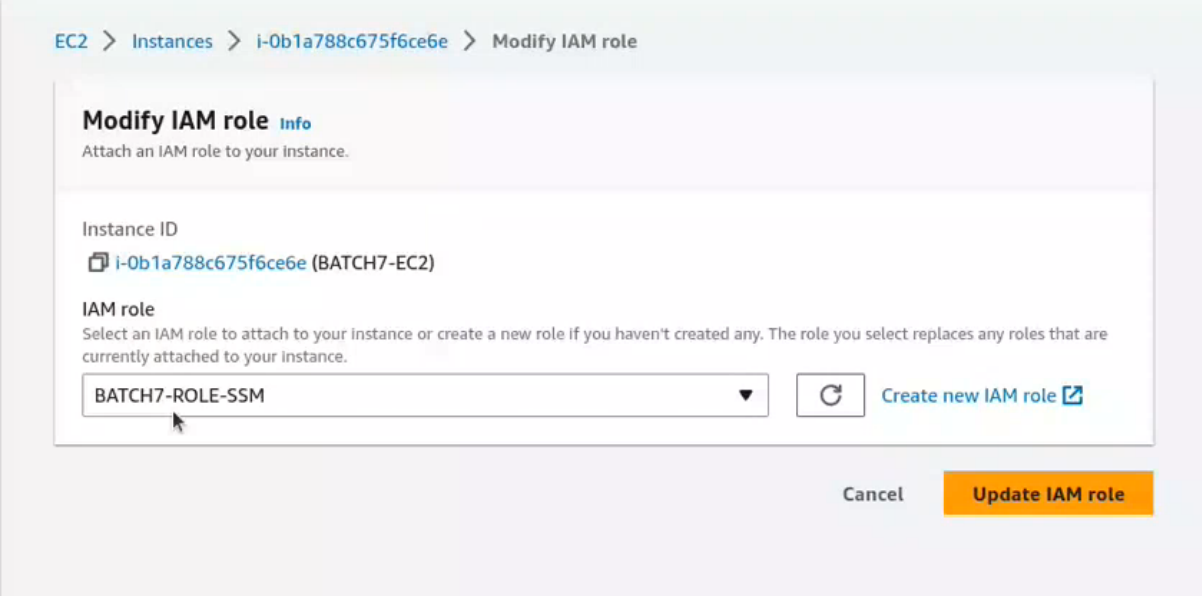
AWS console> EC2 > Name > Select AMI as Windows > AMI as Microsoft Windows Server 2022 Base > Key pair > Launch.



- ✓ No need to do anything with network security and Security group.

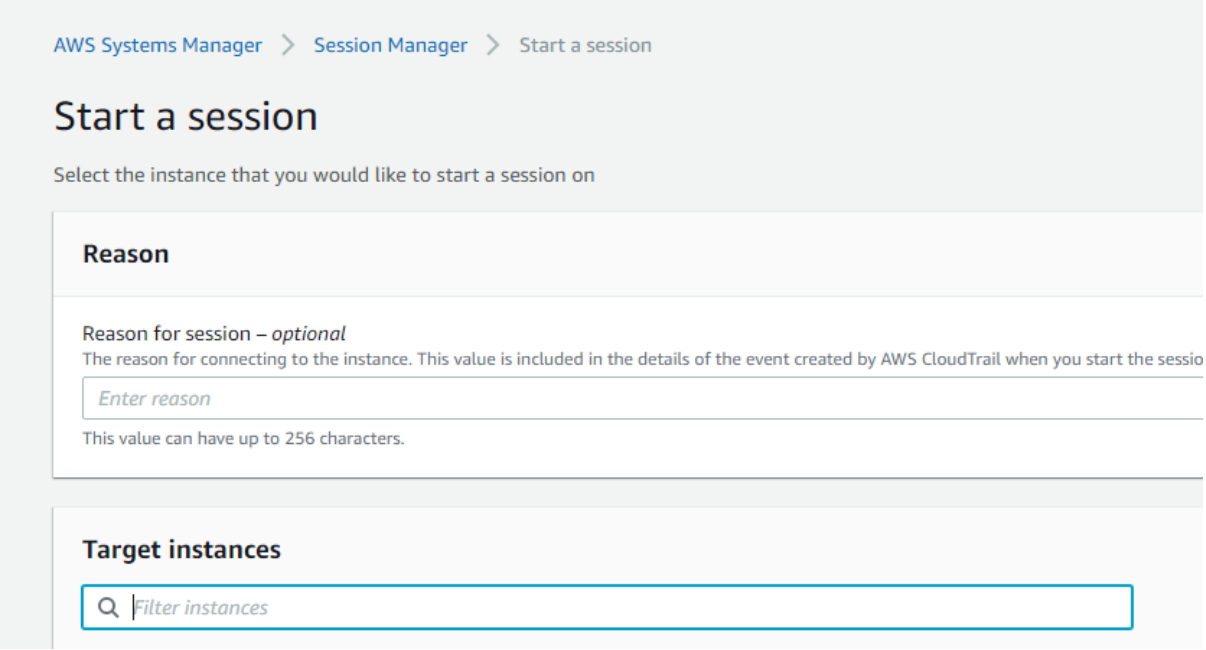
After launching a instance go to your instance, Select the instance, go to actions > security > Modify IAM role



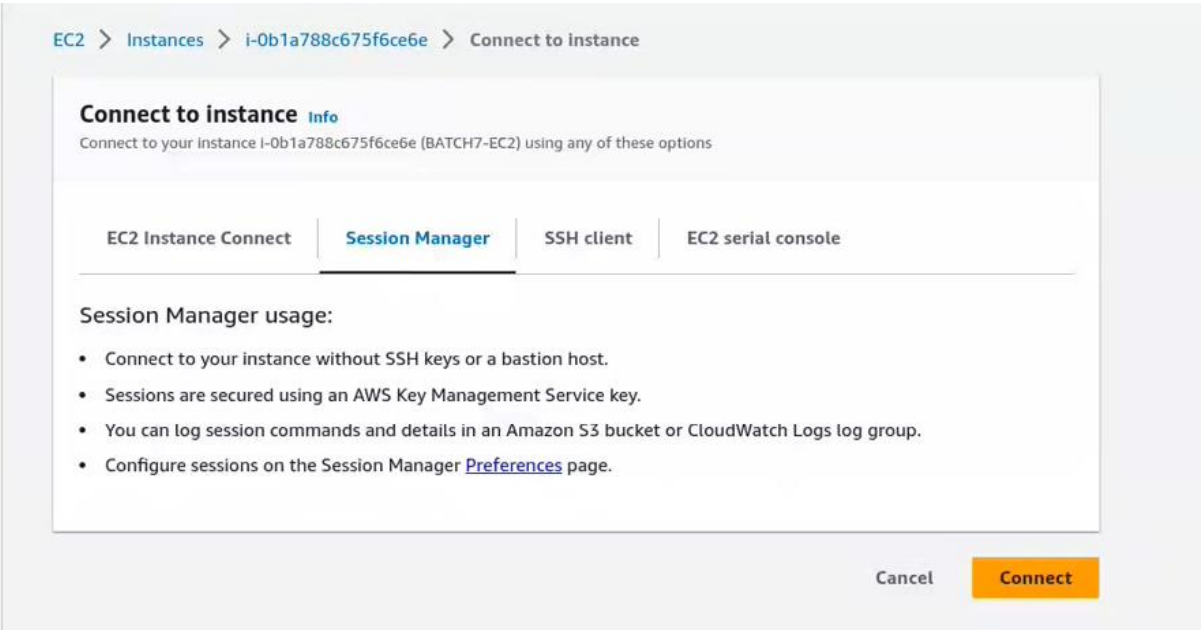


- ✓ Now to start a session you can either use one of following two ways.(bellowed image)

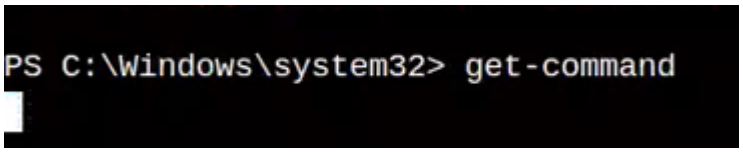
Go to AWS Systems manager > Session Manager > Start Session > Give ID of your EC2 instance to which you want to start a session.



OR



After Connecting you are good to go



RUN COMMAND:

- ✓ With the help of this you can run different commands.
- ✓ Using Run Command, a capability of AWS Systems Manager, you can remotely and securely manage the configuration of your managed nodes.
- ✓ A managed node is any Amazon Elastic Compute Cloud (Amazon EC2) instance, edge device, or on-premises server or virtual machine (VM) in your hybrid environment that has been configured for Systems Manager.
- ✓ Run Command allows you to automate common administrative tasks and perform one-time configuration changes at scale.

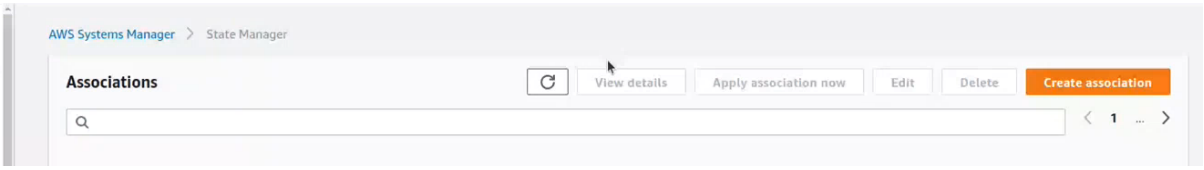
NEED:

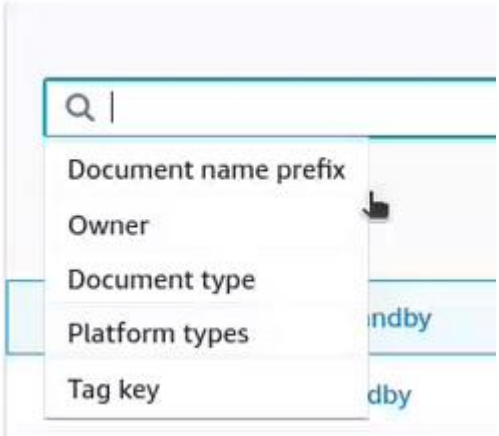
Suppose you are in a team, and you need to run a particular commands hundred time, right? So obviously you will not write the script again and again but here what you can do is you can just have it in the run command, and you are good to go.

STATE Manager:

- ✓ In State manager we used to make association.
- ✓ Lets create a association

AWS System manager > State Manager > Create Association > Name > Select "Platform Type" > Target Selection > Select the instance manually > Select the severity as High > Click create.



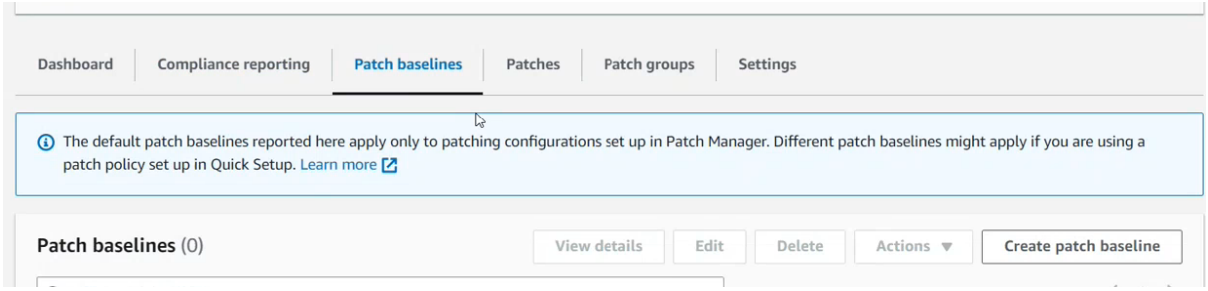


After creating association wait for Status as "SUCCESS".

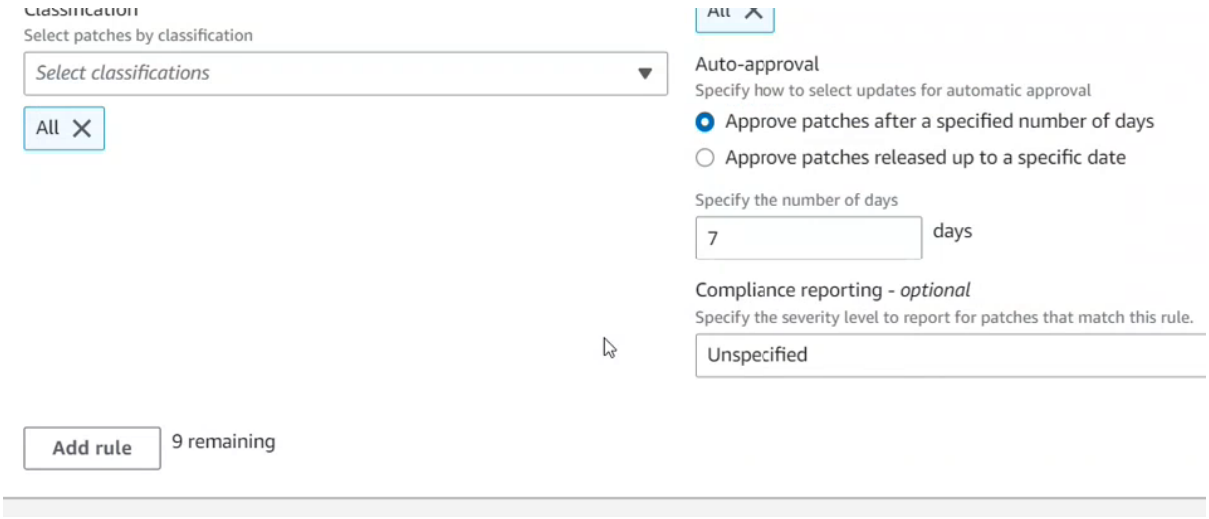
PATCH MANAGER:

- ✓ Patch Manager, a capability of AWS Systems Manager, automates the process of patching managed nodes with both security-related updates and other types of updates.
- ✓ You can use Patch Manager to install Service Packs on Windows nodes and perform minor version upgrades on Linux nodes. You can patch fleets of Amazon Elastic Compute Cloud (Amazon EC2) instances, edge devices, on-premises servers, and virtual machines (VMs) by operating system type.
- ✓ Only the instances in which SSM agent is installed are eligible for Patching and inventory.
- ✓ First thing that we need to do before creating and apply a patch is to create a baseline.

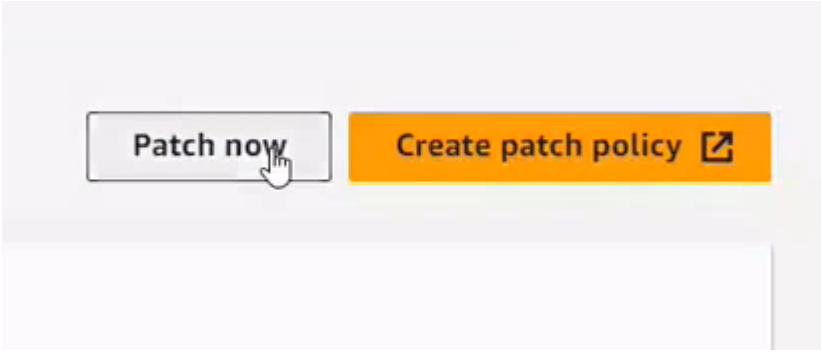
AWS SYSTEM MANAGER > Patch Manager > Patch Baseline > Give Name > Description > Select Operating System > Select Product as ALL > Select the Severity as ALL > Select Classification as ALL > Specify the number of days for Updating > add tags > Click Create.

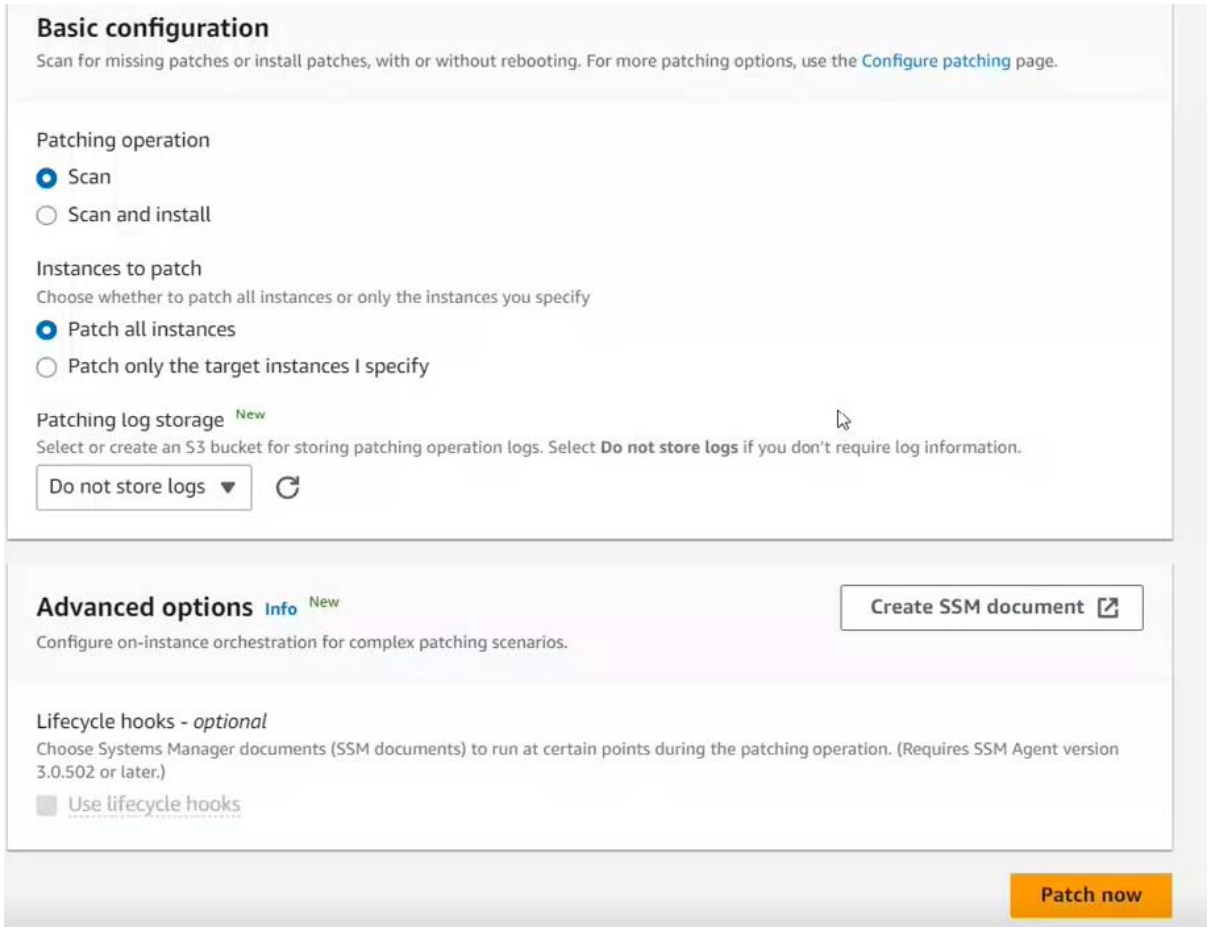


In order to add another rule Click on add rule.

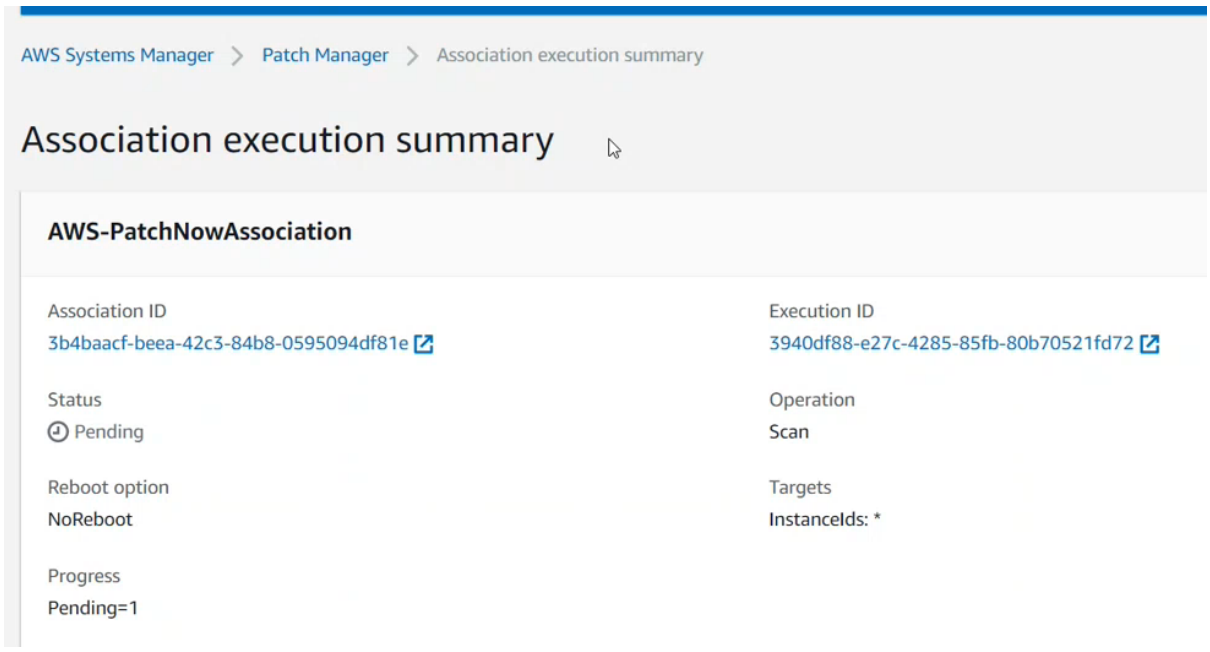


In order to Patch it select the patch baseline, and click on PATCH NOW.





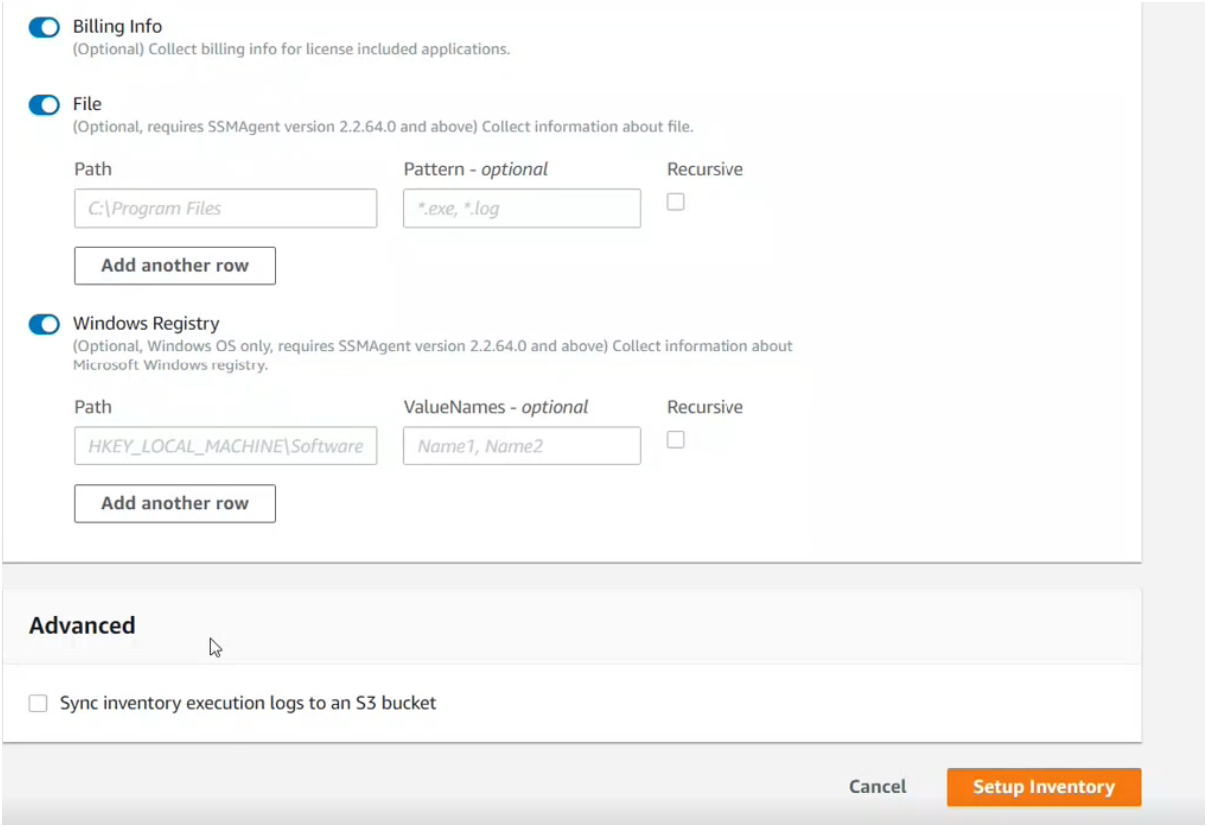
Click Patch Now. It'll display the following window.



If the patching is successful than it'll show the following screen.

INVENTORY:

AWS System manager > Inventory > SetUp Inventory > Give name > Select target as “manually selecting the instance” > give instance ID > Give the time after that you want to collect your inventory data > Click Set up.



Now it'll collect all the data related to the instance that we mentioned while setting up the inventory.

----------**END**----------