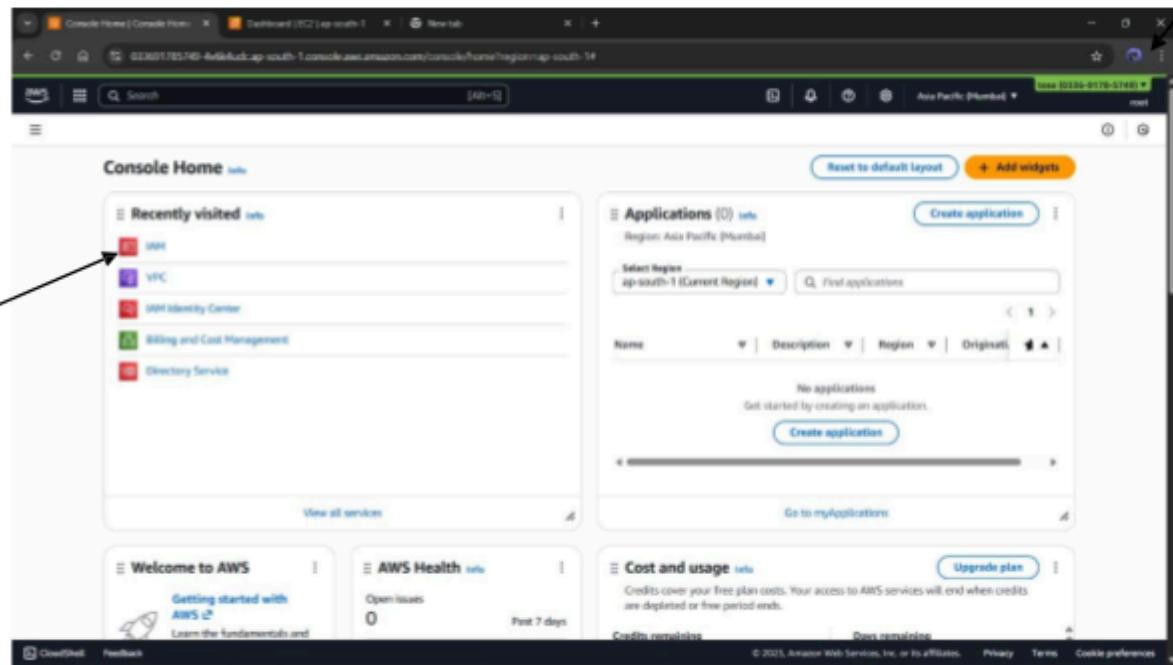


AWS ASSIGNMENT 1ST

STEP 1 & 2:-

CREATE A AWS FREE TIER ACCOUNT AS A ROOT USER SO THAT WE CAN WORK IN GROUPS AND ALSO TO CREATE SUB ACCOUNTS FOR WORK MANAGEMENT



NOW WE GO TO IAM AND CREATE A USER THERE TO WORK WITH WE DON'T USE OUR ROOT ACCOUNT FOR WORKING WE CREATE USERS THERE FOR WORK WE USE DIFFERENT USERS FOR DIFFERENT WORK THIS WILL HELP US TO MANAGE THE BILLING AND POLICIES EASILY ROOT IS USED TO MANAGE THOSE IAM ACCOUNT IT'S LIKE A BOSS IS RUNNING THE COMPANY HE WILL PAY AND GET THE WORK DONE BUT HE WILL NOT WORK

The screenshot shows the 'Specify user details' step of the IAM User creation wizard. The left sidebar shows steps: Step 1 (selected), Step 2 (Set permissions), Step 3 (Review and create), and Step 4 (Retrieve password). The main form has a 'User details' section with a 'User name' field containing 'Administrator'. There is a checked checkbox for 'Provide user access to the AWS Management Console - optional'. The 'Console password' section shows 'Custom password' selected with a password entered. Below it, a note says 'Users must create a new password at next sign-in - Recommended'. At the bottom, a note says 'If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keypairs, you can generate them after you create this IAM user.' with a 'Learn more' link. A 'Next' button is at the bottom right.

Set permissions

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Permissions options

- Add user to group Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.
- Copy permissions Copy all group memberships, attached managed policies, and inline policies from an existing user.
- Attach policies directly Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

Permissions policies (1/1399)

Choose one or more policies to attach to your new user.

Filter by Type		
<input type="text" value="admin"/>	All types	53 matches
<input checked="" type="checkbox"/> Policy name ↗	Type	Attached entities
<input checked="" type="checkbox"/> AdministratorAccess	AWS managed - job function	2
<input type="checkbox"/> AdministratorAccess-Amplify	AWS managed	0
<input type="checkbox"/> AdministratorAccess-AWSElasticBeanstalk	AWS managed	0
<input type="checkbox"/> AIOpsConsoleAdminPolicy	AWS managed	0
<input type="checkbox"/> AmazonAPIGatewayAdministrator	AWS managed	0
<input type="checkbox"/> AmazonNimbleStudio-StudioAdmin	AWS managed	0
<input type="checkbox"/> AmazonSageMakerAdmin-ServiceCatalogProduct	AWS managed	0

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- HERE WE CREATE AN ADMINUSER IAM USER IN OUR ROOT ACCOUNT WE GIVE IT PERMISSIONS OF ADMINISTRATORACCESS AND ALSO WE ADD A MFA IN IT AND ALSO A ACCESS KEY FOR SAFETY AND NOW OUR STEP 1ST AND 2ND ARE COMPLETED NOW LET'S MOVE TO STEP 3RD FOR STEP 3RD WE WILL USE THE ADMINUSER ACCOUNT WE JUST CREATED BY OUR ROOT ACCOUNT

Identity and Access Management (IAM)

Adminuser Info

Summary

ARN: arn:aws:iam::033691785749:user/Adminuser

Console access: Enabled with MFA

Created: October 19, 2025, 08:54 (UTC+05:30)

Last console sign-in: Today

Access key 1: AKIAQPWB5IK46PC77EQ - Active
Never used. 9 days old.

Access key 2: Create access key

Permissions **Groups** **Tags** **Security credentials** **Last Accessed**

Permissions policies (2)

Permissions are defined by policies attached to the user directly or through groups.

Filter by Type		
<input type="text" value="Search"/>	All types	Attached via ↗
<input type="checkbox"/> Policy name ↗	Type	Attached via ↗
<input type="checkbox"/> AdministratorAccess	AWS managed - job function	Directly
<input type="checkbox"/> IAMUserChangePassword	AWS managed	Directly

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The screenshot shows the AWS IAM Users page. On the left, there's a navigation sidebar with sections like 'Access management' (Users selected), 'Access reports', and 'CloudShell'. The main area displays a table titled 'Users (2) Info' with columns: User name, Path, Group, Last activity, MFA, Password age, Console last sign-in, and Acc. Two users are listed: 'AdminUser' (Path /, Group 0, Last activity -, MFA off, Password age 9 days, Console last sign-in 10 hours ago, Acc Act) and 'myadmin' (Path /, Group 1, Last activity -, MFA off, Password age 35 days, Console last sign-in 35 days ago, Acc -). A 'Create user' button is at the top right.

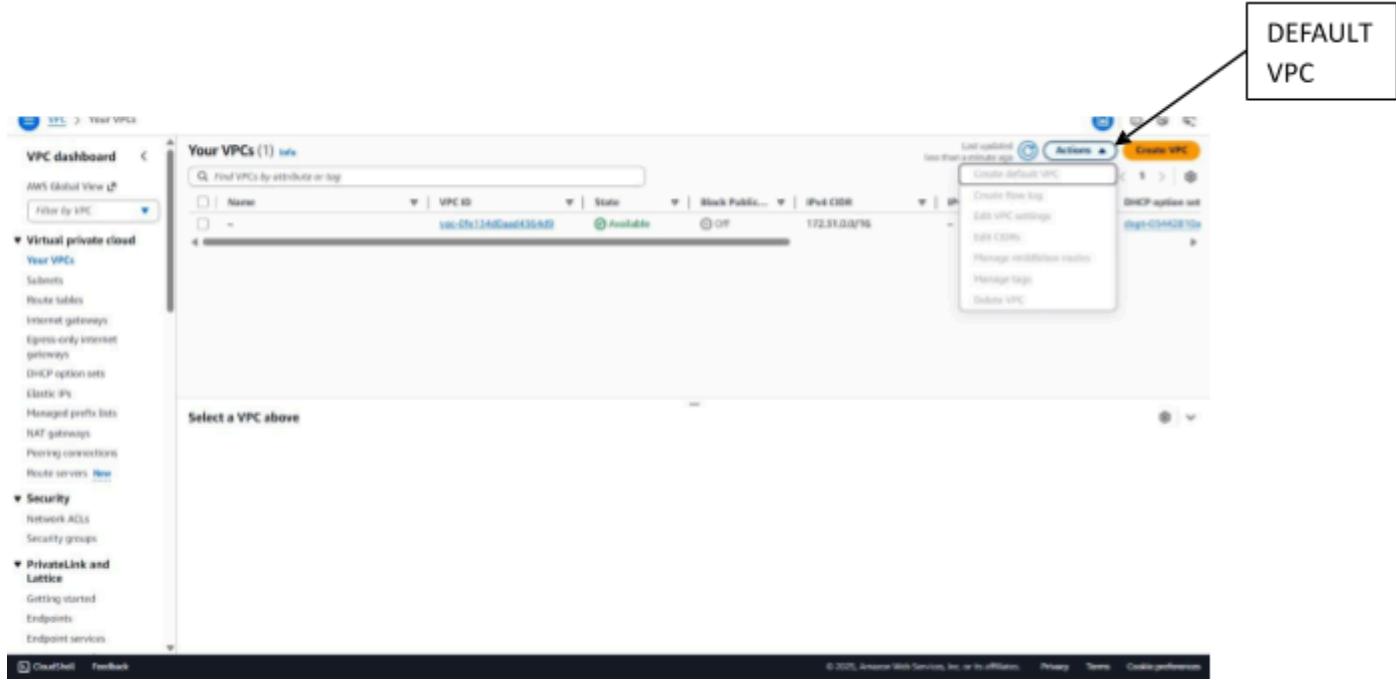
STEP 3

HERE WE ARE IN OUR ADMINUSER ACCOUNT NOW WE GO TO THE VPC SECTION AND HERE WE SAW THAT THERE IS ALREADY A VPC AVAILABLE IN OUR ACCOUNT IT'S A DEFAULT VPC BY AWS IF YOU WANT TO CREATE YOUR OWN SO YOU CAN BUT FOR WE ARE GOING WITH THIS

- IF YOU DELETED THE VPC AND WANT TO CREATE YOU OWN SO YOU CAN DO THAT

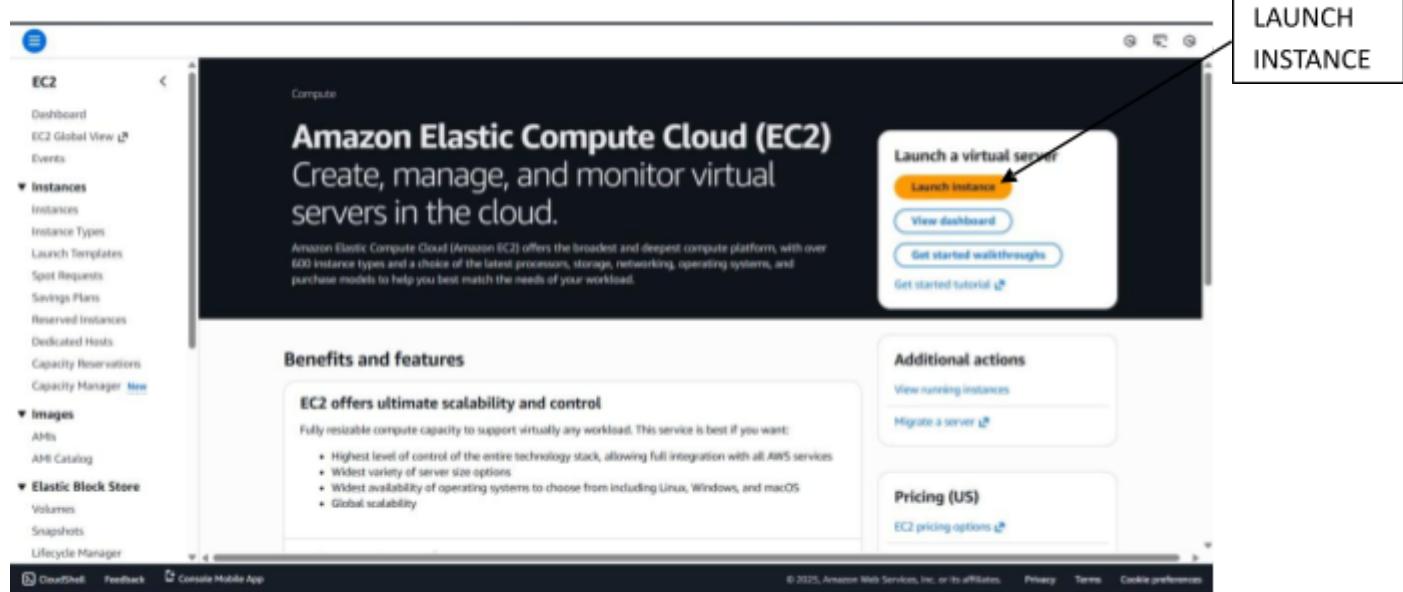
The screenshot shows the AWS VPC dashboard. The left sidebar includes sections for 'AWS Global View', 'Virtual private cloud' (Your VPCs selected), 'Security', and 'PrivateLink and Lattice'. The main area displays a table titled 'Your VPCs (1) Info' with columns: Name, VPC ID, State, Block Public..., IPv4 CIDR, IPv6 CIDR, and DHCP option set. One VPC is listed: 'vpc-0fe134d0aad4364d9' (Name -, State Available, Block Public... OFF, IPv4 CIDR 172.31.0.0/16, IPv6 CIDR -, DHCP option set dopt-03442810a). A message 'Select a VPC above' is displayed below the table. A 'Create VPC' button is at the top right.

AND IF YOU AREN'T ABLE TO CREATE VPC SO YOU CAN CREATE A DEFAULT VPC AGAIN YOU CAN SEE IT HERE



STEP 4 ,5 & 6

IN THIS WE WILL CREATE A EC2 INSTANCE TO RUN OUR WEBSITE AND ALSO WE PERFORM RDP WITH ACCESS KEY PAIR AND BY FLEET MANAGER



EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Add additional tags

Application and OS Images (Amazon Machine Image) Info

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

Q

Recents
Quick Start

Amazon Linux
macOS
Ubuntu
Windows
Red Hat
SUSE Linux
Debian

Q
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Microsoft Windows Server 2019 Base
ami-0d15700839e619c34 (64-bit (x86))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Architecture	AMI ID	Publish Date	Username
64-bit (x86)	ami-0d15700839e619c34	2025-10-17	Administrator

Summary

Number of instances Info

1

Software Image (AMI)
 Microsoft Windows Server 2019 ... [read more](#)
 ami-0d15700839e619c34

Virtual server type (instance type)
 t3.micro

Firewall (security group)
 New security group

Storage (volumes)
 1 volume(s) - 30 GB

Cancel
Launch instance
[Preview code](#)

EC2 > Instances > Launch an instance

Architecture 64-bit (x86)
 AMI ID ami-0d15700839e619c34
 Publish Date 2025-10-17
 Username Administrator
 Create key pair

Instance type Info [Get details]

t3.micro
 Family: t3 2 vCPUs 1 GiB Memory Current generation true On-Demand Linux base pricing: \$0.0172/GB per Hour
 On-Demand GPU base pricing: \$2.012/200 per Hour On-Demand Windows base pricing: \$0.0204/GB per Hour
 On-Demand instance Pre-launch pricing: \$0.001 per Hour On-Demand Linux: new pricing starts after per Hour
 On-Demand Windows: new pricing starts after per Hour

All generations [Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required
[Create new key pair](#)

For Windows instances, you can use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

Network settings Info

Network Info
 ip: 0.0.0.0/0,0.0.0.0/0,0.0.0.0/0,0.0.0.0/0
Subnet Info
 No preference (Default subnet in any availability zone)
Auto-assign public IP Info
 Enabled
Firewall (security group) Info
 A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Summary

Number of instances Info

1

Software Image (AMI)
 Microsoft Windows Server 2019 ... [read more](#)
 ami-0d15700839e619c34

Virtual server type (instance type)
 t3.micro

Firewall (security group)
 New security group

Storage (volumes)
 1 volume(s) - 30 GB

Cancel
Launch instance
[Preview code](#)

CREATE
NEW KEY
PAIR

EC2 > instances > Launch an instance

Network settings

Network: info
vpc-0fe134d0aad4564d9

Subnet: info
No preference (Default subnet in any availability zone)

Auto-assign public IP: info
Enable

Firewall (security groups): info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

We'll create a new security group called 'launch-wizard-2' with the following rules:

- Allow RDP traffic from My IP: 122.177.97.122/32
- Allow HTTPS traffic from the internet To set up an endpoint, for example when creating a web server
- Allow HTTP traffic from the internet To set up an endpoint, for example when creating a web server

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Summary

Number of instances: 1

Software image (AMI): Microsoft Windows Server 2019 ...read more
ami-0015708b39e619c34

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 30 GiB

Launch instance **Preview code**

Cancel

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EC2 > Instances

Successfully initiated starting of i-0511f7c772e29d995

Instances (1 / 1) Info											
Find instance by attribute or tag (case-sensitive)		All states		Actions		Launch instance					
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4	Elastic IP	IPv6 IPs	Monitor
my web server	i-0511f7c772e29d995	Running	t3.micro	0/3 checks passed...	View alarms	ap-south-1b	ec2-65-2-91-241.ap.sou...	65.2.91.241	65.2.91.241	-	disabled

Last updated: less than a minute ago

CloudShell Feedback

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EC2 > Instances > i-0511f7c772e29d995 > Connect to instance

Successfully initiated starting of i-0511f7c772e29d995

Connect Info
Connect to an instance using the browser-based client.

RDP client

Session Manager RDP client EC2 serial console

Record RDP connections You can now record RDP connections using AWS Systems Manager just-in-time node access. [Learn more](#)

Try for free

Instance ID i-0511f7c772e29d995 (my web server)

Connection Type

Connect using RDP client Download a file to use with your RDP client and retrieve your password.

Connect using Fleet Manager Connect to your instance using Fleet Manager Remote Desktop.

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

[Download remote desktop file](#)

When prompted, connect to your instance using the following username and password:

Public DNS ec2-65-2-91-241.ap-south-1.compute.amazonaws.com

Username info

Administrator

Password [Get password](#)

If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

Cancel

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EC2 > Instances > i-0511f7c772e29d995 > Get Windows password

Get Windows password Info

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID i-0511f7c772e29d995 (my web server)

Key pair associated with this instance assign1st

Private key

Either upload your private key file or copy and paste its contents into the field below.

Upload private key file

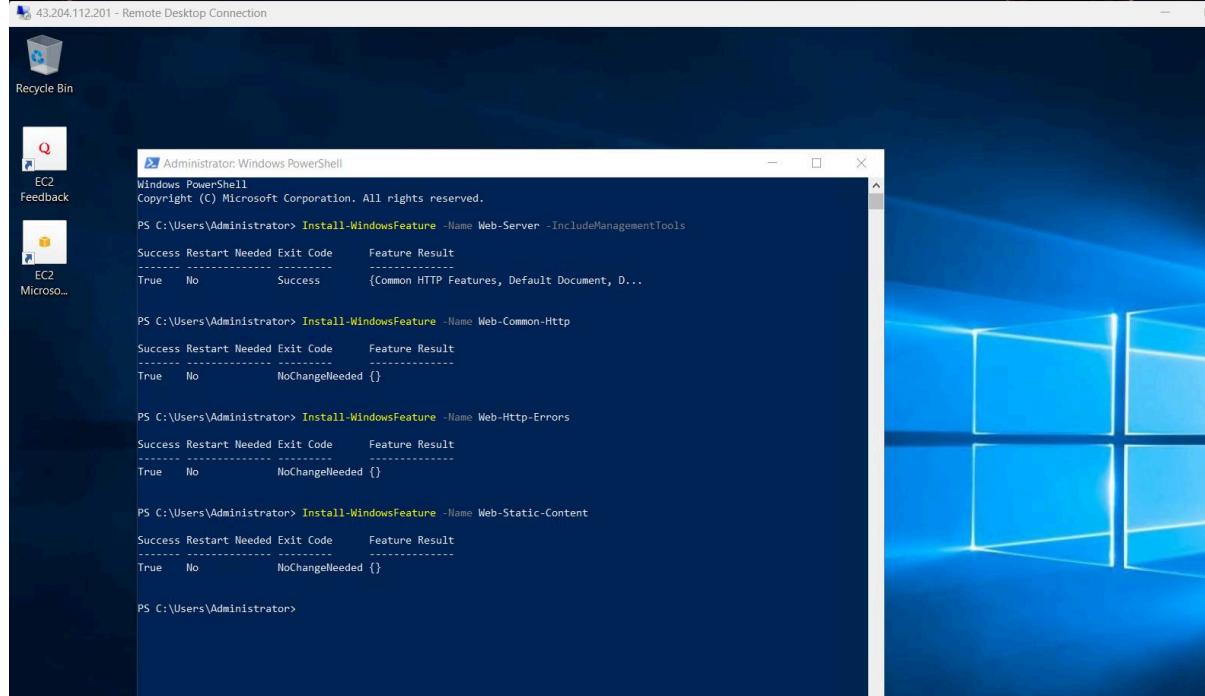
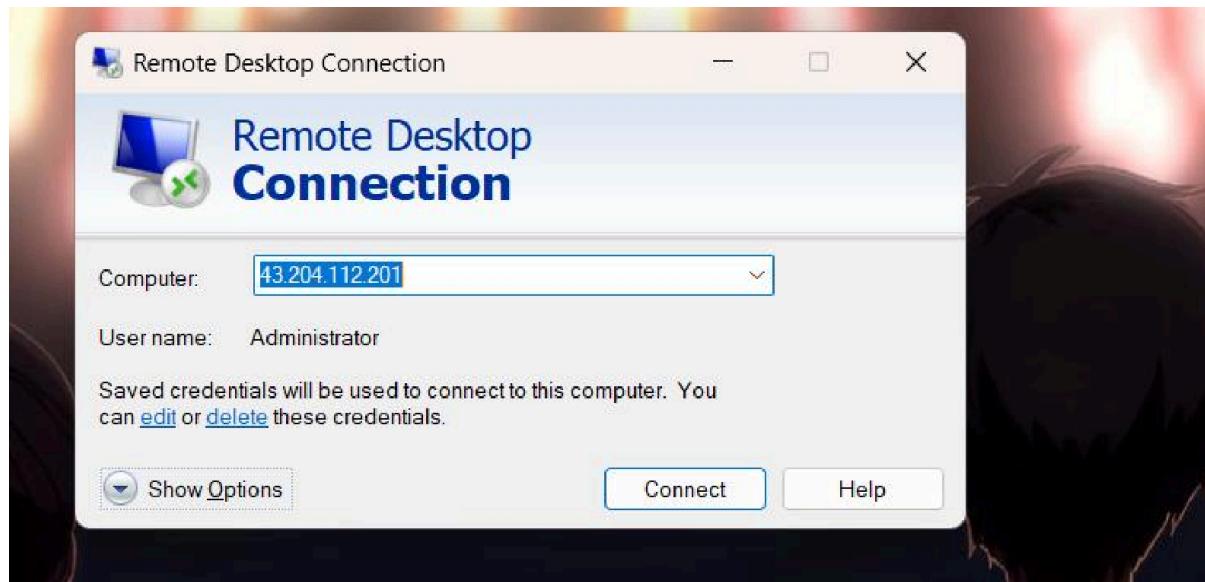
assign1st.pem
1.678KB

Private key contents - optional

```
-----BEGIN RSA PRIVATE KEY-----
MIIEpaIBAAKCAQEAs45SPVbhuAQ80j1GE1m3aGTB8fxCVUXX/SRow1PiQEOsk
Rf0l9mK91DAd2ZQk49J4pGV4cdqOYhgHNxgsoDaipodVf6z7h8C+hs/Q
6J9jK5xx8XV6UP+evBv5tYz2NNBjhChCamuf1BqoULQDCKc3DpqauunEv5ukRh
2Z2OPhQ+D)YdkallStwScyJUP0D7/KZ9kz83kmWQX5KINzbdqVBFvhLDRf8G7
778+J6oyMeG8bxmoRj2Jdyf590MPErgeaDCdpZFXE70YwlWigluhbZv3keKNL
nQT9lmLq6wD+3Q8Gr4XrN8n431w68jW06iQlDAQABAoIBAQCPw7DW8Zf4pWQ5
gpDywHUvoCzg21+DbxVV2FWMoq1W1JAW12bugrhw8YUJ6nH7mfZQdwvyp9dW5
-----END RSA PRIVATE KEY-----
```

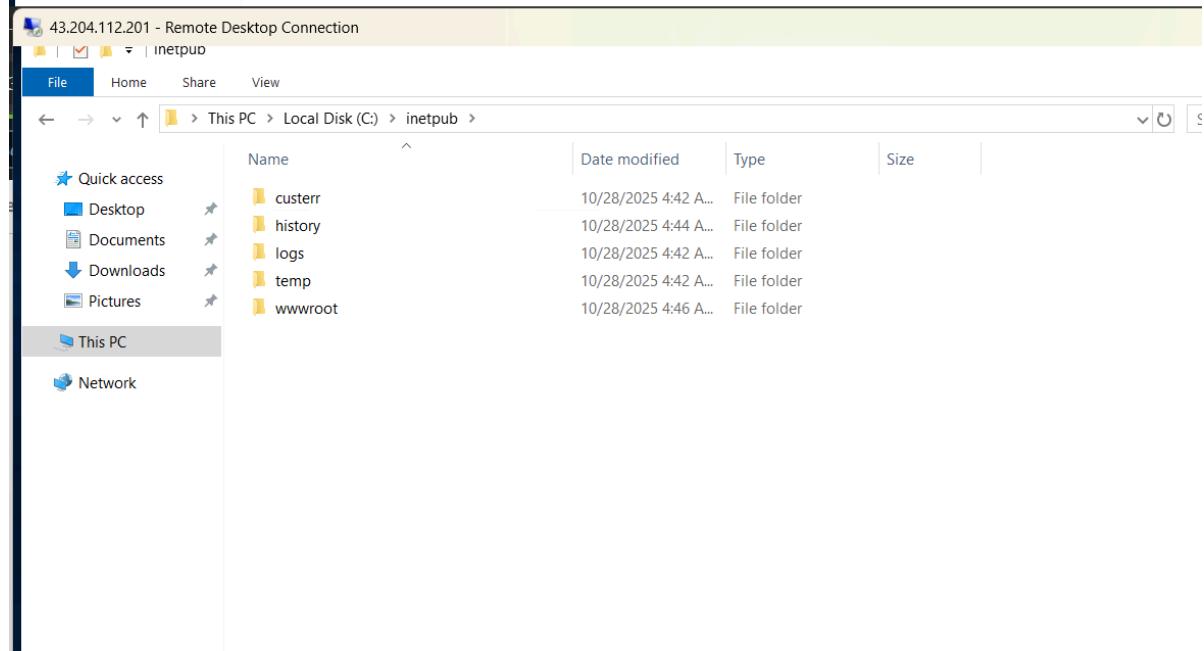
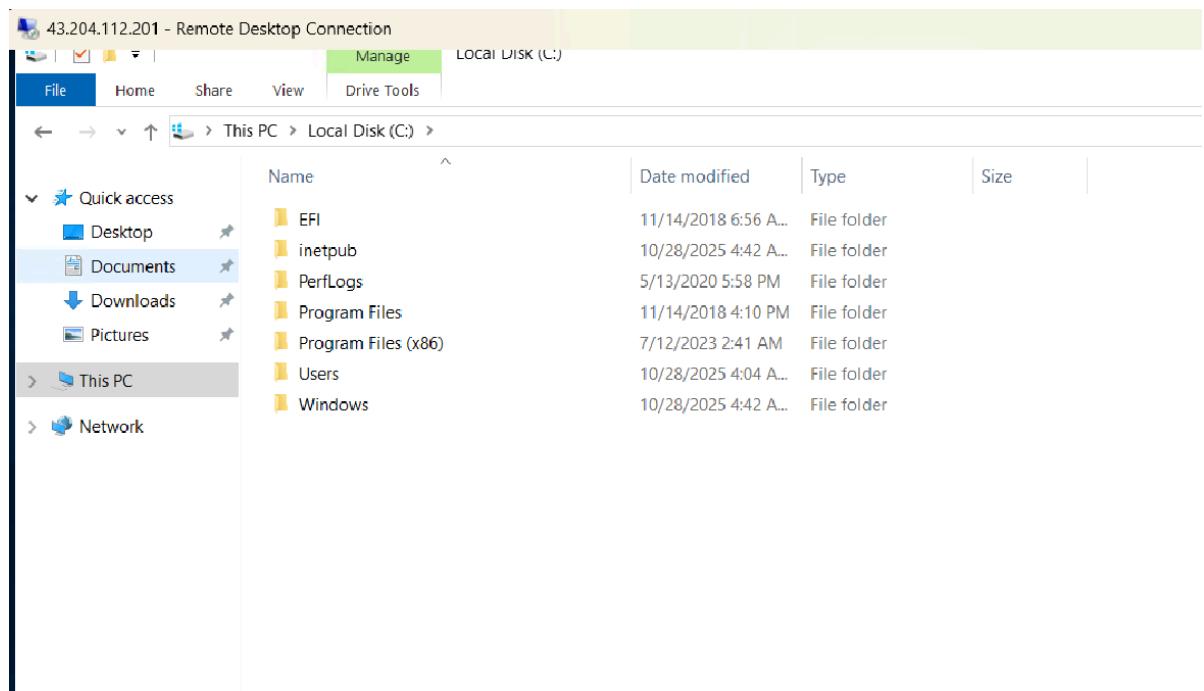
Cancel Decrypt password

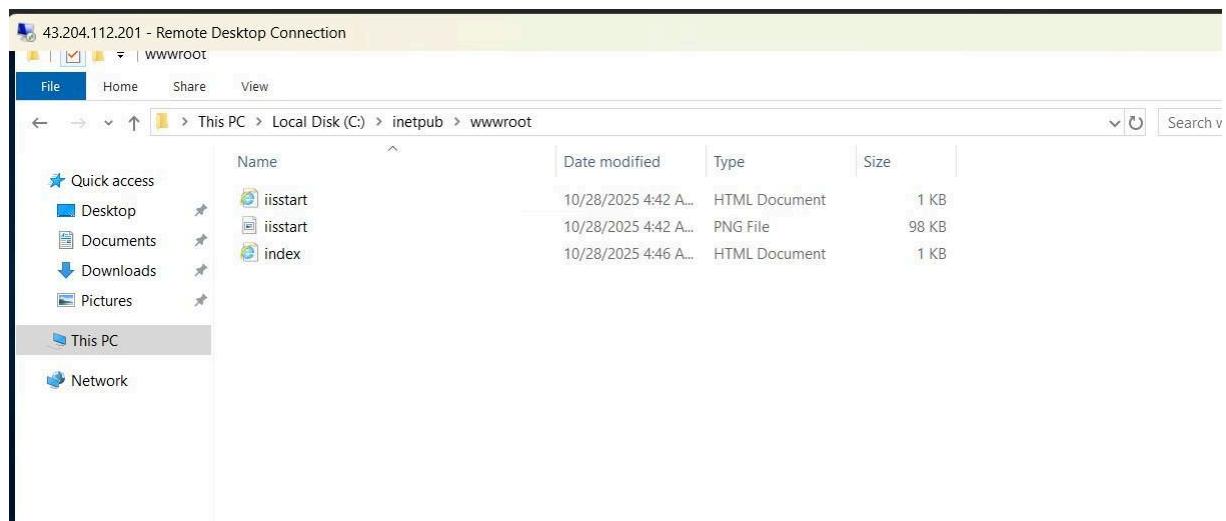
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43.204.112.201 - Remote Desktop Connection

```
PS C:\Users\Administrator> # Create simple HTML page
>> $HTMLContent = @"
>> <!DOCTYPE html>
>> <html>
>>   <head>
>>     <title>Windows Web Server</title>
>>     <style>
>>       body { font-family: Arial, sans-serif; margin: 40px; }
>>       h1 { color: #2E8B56; }
>>       .container { max-width: 800px; margin: 0 auto; }
>>     </style>
>>   </head>
>>   <body>
>>     <div class="container">
>>       <h1>Windows Web Server Running on AWS EC2</h1>
>>       <p><strong>Instance ID:</strong> $((Get-EC2Instance -Region us-east-1 -InstanceId (Invoke-RestMethod -Uri 'http://169.254.169.254/latest/meta-data/instance-id')).Instances[0].InstanceId)</p>
>>       <p><strong>Region:</strong> $($Invoke-RestMethod -Uri 'http://169.254.169.254/latest/meta-data/placement/region')</p>
>>       <p><strong>AMI:</strong> Windows Server 2019</p>
>>       <p><strong>Server Time:</strong> $($Get-Date)</p>
>>       <hr>
>>       <h2>Technologies Used:</h2>
>>       <ul>
>>         <li>AWS EC2 Windows Instance</li>
>>         <li>IIS Web Server</li>
>>         <li>AWS Systems Manager</li>
>>         <li>Custom HTML Page</li>
>>       </ul>
>>     </div>
>>   </body>
>> </html>
>> "@
>>
>> # Save to web root
>> $HTMLContent | Out-File -FilePath "C:\inetpub\wwwroot\index.html" -Encoding UTF8
Invoke-RestMethod : The remote server returned an error: (401) Unauthorized.
At line:16 char:92
+ ... InstanceId (Invoke-RestMethod -Uri 'http://169.254.169.254/latest/met ...
+
+-----+ CategoryInfo          : InvalidOperationException: (System.Net.HttpWebRequest:HttpWebRequest) [Invoke-RestMethod], WebException
+-----+ FullyQualifiedErrorId : WebCmdletWebResponseException,Microsoft.PowerShell.Commands.InvokeRestMethodCommand
Invoke-RestMethod : The remote server returned an error: (401) Unauthorized.
```





Windows Web Server Running on AWS EC2

Instance ID: [REDACTED]

Region: [REDACTED]

AMI: Windows Server 2019

Server Time: 10/28/2025 04:46:08

Technologies Used:

- AWS EC2 Windows Instance
- IIS Web Server
- AWS Systems Manager
- Custom HTML Page

IAM > Roles > Create role

Step 1 Select trusted entity

Step 2 Add permissions

Step 3 Name, review, and create

Select trusted entity [Info](#)

Trusted entity type

AWS service Allow AWS services like EC2, Lambda, or others to perform actions in this account.

AWS account Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.

Web identity Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.

SAML 2.0 federation Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.

Custom trust policy Create a custom trust policy to enable others to perform actions in this account.

Use case

Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Service or use case

Choose a use case for the specified service:

Use case

EC2 Allows EC2 instances to call AWS services on your behalf.

EC2 Role for AWS Systems Manager Allows EC2 instances to call AWS services like CloudWatch and Systems Manager on your behalf.

EC2 Spot Fleet Role Allows EC2 Spot Fleet to request and terminate Spot Instances on your behalf.

EC2 - Spot Fleet Auto Scaling Allows Auto Scaling to access and update EC2 spot fleets on your behalf.

EC2 - Spot Fleet Tagging Allows EC2 to launch spot instances and attach tags to the launched instances on your behalf.

EC2 - Spot Instances Allows EC2 Spot Instances to launch and manage spot instances on your behalf.

EC2 - Spot Fleet Allows EC2 Spot Fleet to launch and manage spot fleet instances on your behalf.

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IAM > Roles > Create role

Step 1 Select trusted entity

Step 2 Add permissions

Step 3 Name, review, and create

Add permissions [Info](#)

Permissions policies (1) [Info](#)

The type of role that you selected requires the following policy.

Policy name

Type

▶ Set permissions boundary - optional

Cancel [Previous](#) [Next](#)

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Step 1: Name, review, and create

Role details

Role name: Ec2SSMRole

Description: Allows EC2 instances to call AWS services like CloudWatch and Systems Manager on your behalf.

Step 1: Select trusted entities

Trust policy:

```

1 <!
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Sid": "",
6       "Effect": "Allow",
7       "Principal": [
8         "Service": "ec2.amazonaws.com"
9       ],
10      "Action": "sts:AssumeRole"
11    }
12  ]
13 >

```

Step 2: Add permissions

Permissions policy summary

Policy name	Type	Attached as	Permissions policy
AmazonSSMManagedInstanceCore	AWS managed		Permissions policy

Step 3: Add tags

https://033691785749-kizu2mxap.ap-south-1.console.aws.amazon.com/console/home?region=...

Identity and Access Management (IAM)

Roles (4) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Role name	Trusted entities	Last activity
AWSServiceRoleForResourceExplorer	AWS Service: resource-explorer-2	19 minutes ago
AWSServiceRoleForSupport	AWS Service: support	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor	-
ec2ssm	AWS Service: ec2	11 minutes ago

Roles Anywhere

Authenticate your non AWS workloads and securely provide access to AWS services.

Access AWS from your non AWS workloads

Operate your non AWS workloads using the same authentication and authorization strategy that you use within AWS.

X.509 Standard

Use your own existing PKI infrastructure or use AWS Certificate Manager Private Certificate Authority to authenticate identities.

Temporary credentials

Use temporary credentials with ease and benefit from the enhanced security they provide.

Create role

CloudShell Feedback

EC2 > Instances

Instances (1/1) Info

Name	Instance ID	Instance State	Instance Type	Alarm status	Availability Zone	Public IPv4 DNS	Elastic IP
my web server	i-0511f7c772e29d995	Running	t3.micro	0/3 checks passed	ap-south-1b	ec2-65-2-91-241.ap-south-1.compute.amazonaws.com	65.2.91.241 65.2.91.24

Actions

- Connect
- Instance state
- Launch instances
- Instance settings
- Networking
- Security
- Image and templates
- Monitor and troubleshoot

Images

- AMIs
- AMI Catalog

Elastic Block Store

- Volumes
- Snapshots
- Lifecycle Manager

Network & Security

- Security Groups
- Elastic IPs
- Placement Groups
- Key Pairs
- Network Interfaces

Load Balancing

- Load Balancers
- Target Groups
- Trust Stores

Auto Scaling

- Auto Scaling Groups

CloudShell Feedback Console Mobile App

EC2 > Instances > i-0511f7c772e29d995 > Modify IAM role

Modify IAM role Info

Attach an IAM role to your instance.

Instance ID i-0511f7c772e29d995 (my web server)

IAM role Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.

ec2som

Cancel

<https://033691785749-kclu2mqx.ap-south-1.console.aws.amazon.com/console/home?region=ap-south-1>

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Try out the new AWS Systems Manager unified console

The unified console makes it easier to manage nodes across your organization - whether it's EC2 instances, hybrid servers or servers running in a multi cloud environment. [Learn more](#)

Systems Manager > Fleet Manager > Managed nodes

Fleet Manager Info

Managed Nodes (1)

Managed Nodes

Filter:

Last fetched at: 12:09 AM

Node ID	Node state	Name	Platform type	Operating system	Resource type	Source ID	Ping status	Agent version	Image ID	EC2 instance
i-0511f7c772e29d995	Running	my web server	Windows	Microsoft Windows S...	EC2 Instance	-	Online	3.3.3050.0	arn:0d1570d839651...	Open EC2 instance

