LAB # 08:

CLOUD COMPUTING :

FROM:

ALINA IMAN

2023-BSE-005

SECTION A

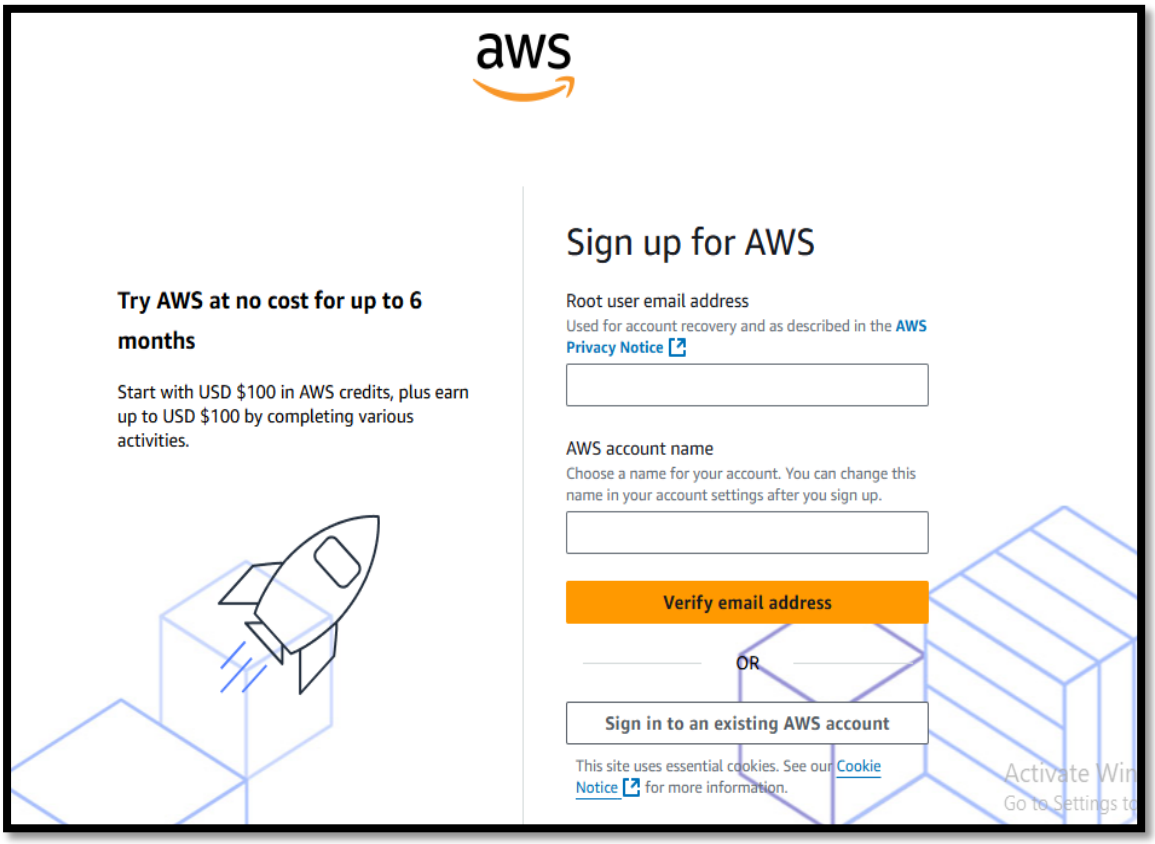
TO:

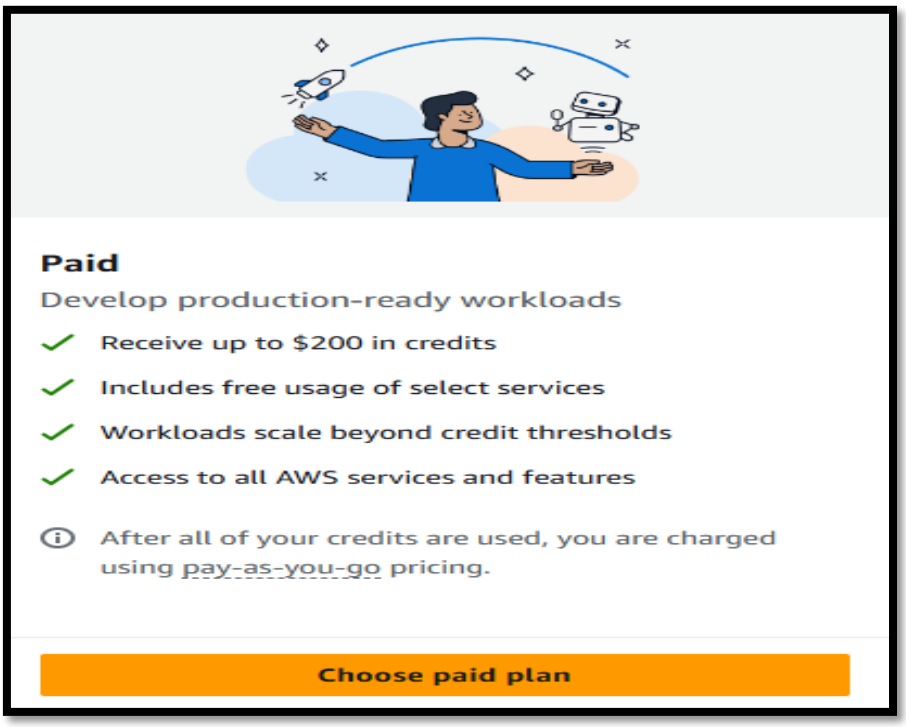
SIR SHOAIB

TITLE:

AWS: ACCOUNT SETUP, IAM, VPC INVENTORY, EC2, DOCKER & GITEA

Task 1 — Create an AWS account and enable UAE (me-central-1)





Sign up for AWS

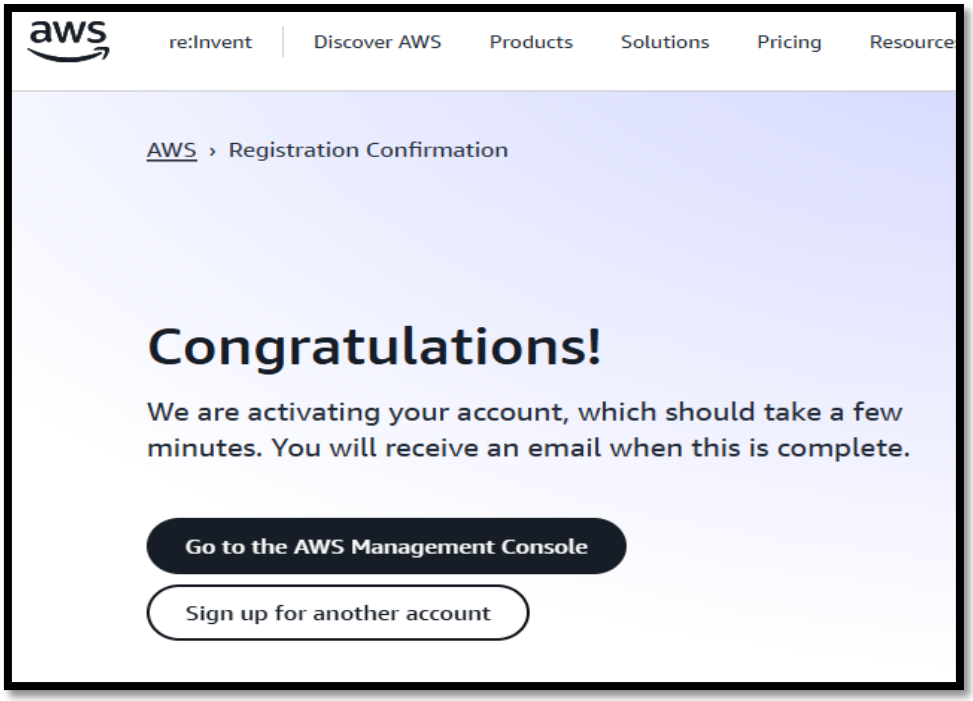
Contact Information

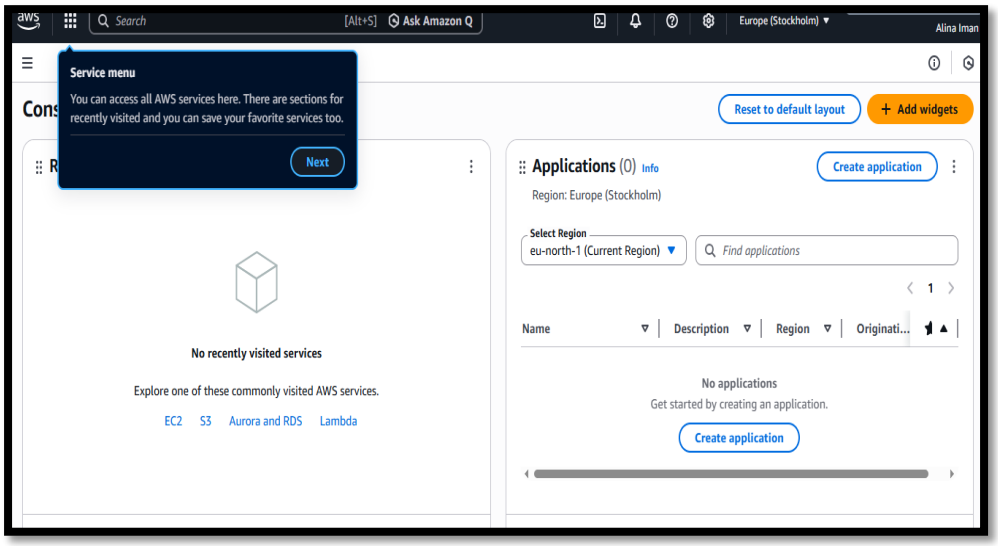
How do you plan to use AWS?

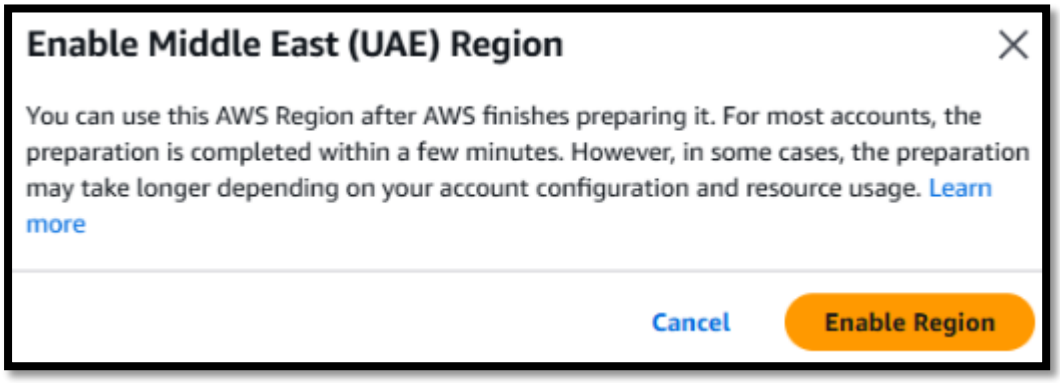
- ◯ Business - for your work, school, or organization
- ◯ Personal - for your own projects

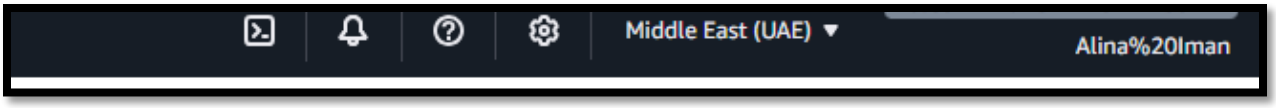
Who should we contact about this account?

Full Name

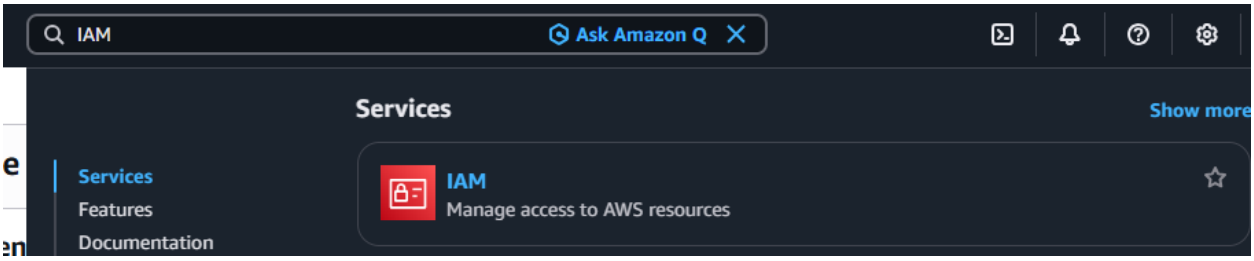

aws
re:Invent
Discover AWS
Products
Solutions
Pricing
Resource
AWS › Registration Confirmation
Congratulations!
We are activating your account, which should take a few minutes. You will receive an email when this is complete.
Go to the AWS Management Console
Sign up for another account

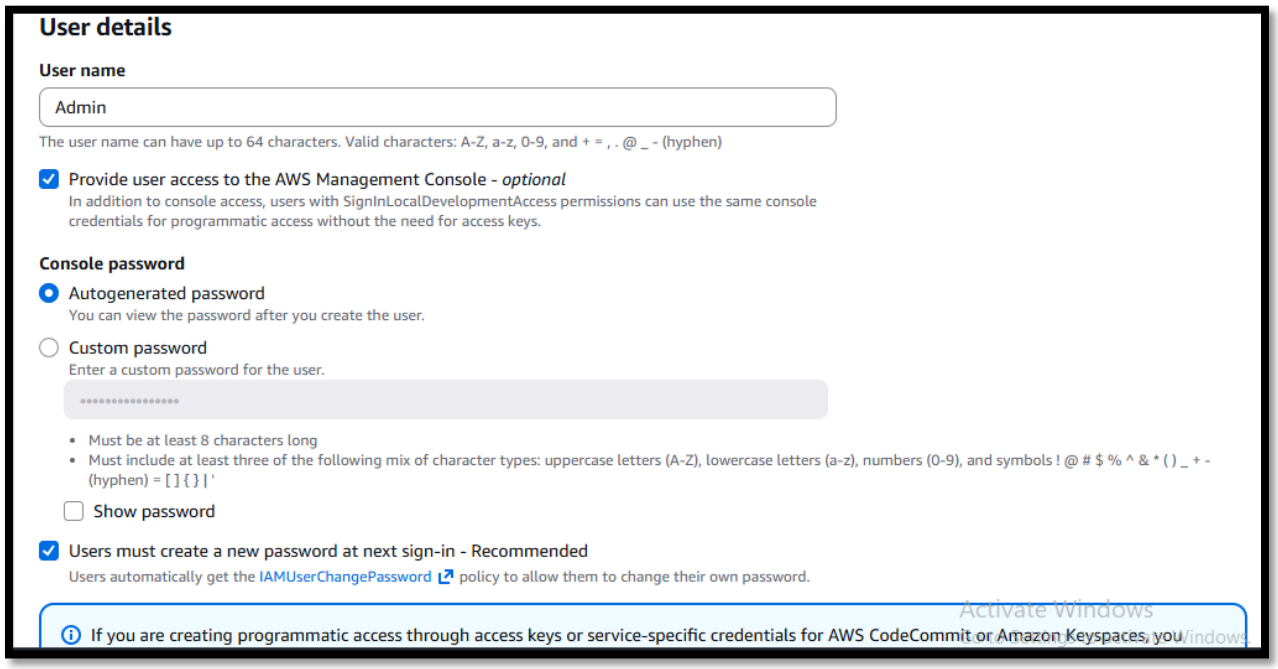

Search
[Alt+S]
Ask Amazon Q
Europe (Stockholm)
Alina Iman
Service menu
You can access all AWS services here. There are sections for recently visited and you can save your favorite services too.
Next
Reset to default layout
+ Add widgets
Applications (0) Info
Create application
Region: Europe (Stockholm)
Select Region
eu-north-1 (Current Region)
Find applications
Name
Description
Region
Originati...
No applications
Get started by creating an application.
Create application
No recently visited services
Explore one of these commonly visited AWS services.
EC2
S3
Aurora and RDS
Lambda

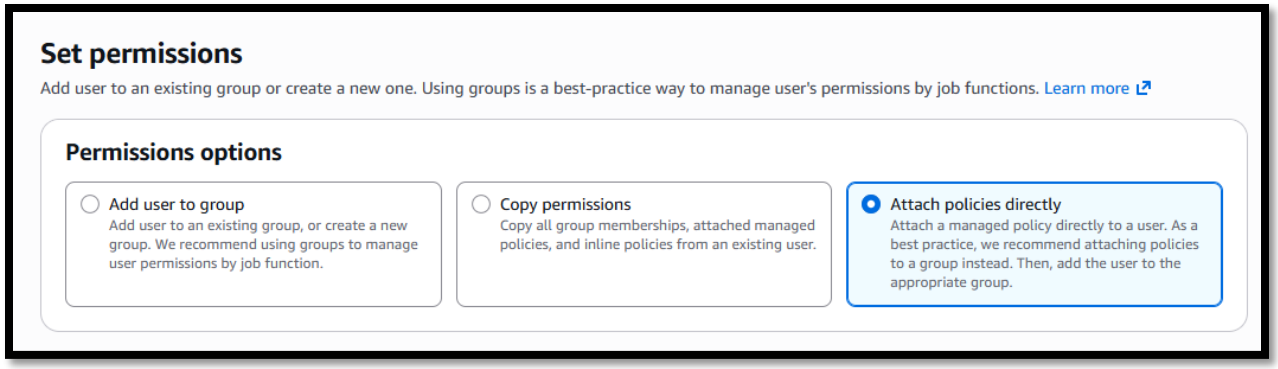

Enable Middle East (UAE) Region
You can use this AWS Region after AWS finishes preparing it. For most accounts, the preparation is completed within a few minutes. However, in some cases, the preparation may take longer depending on your account configuration and resource usage. Learn more
Cancel
Enable Region

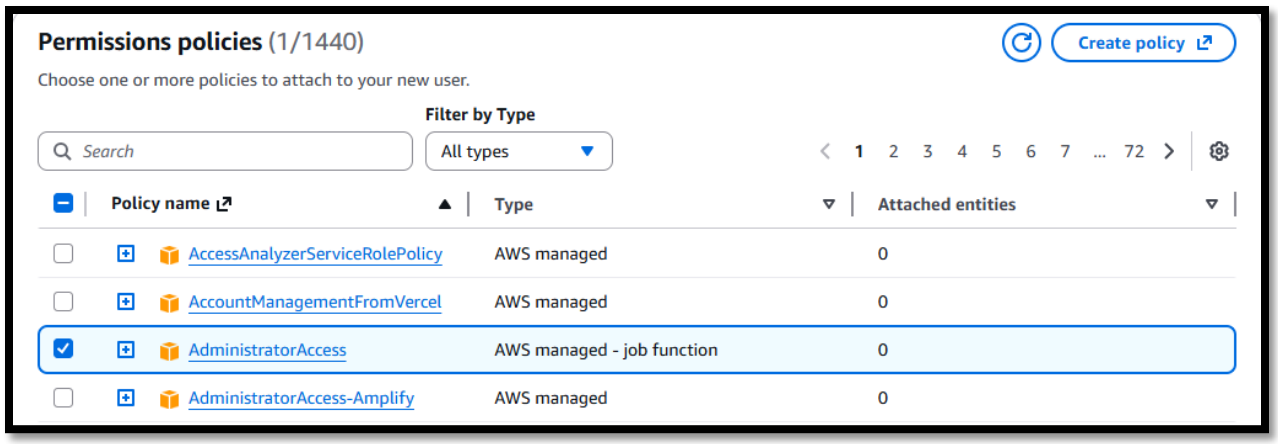


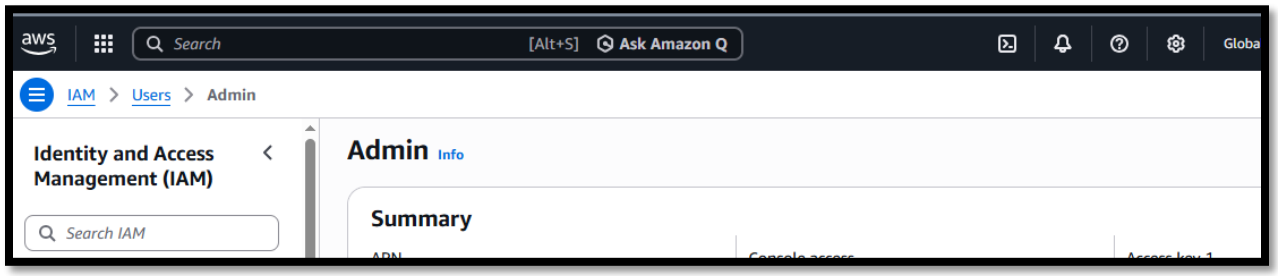
Task 2 — Create IAM Admin and Lab8User with console access



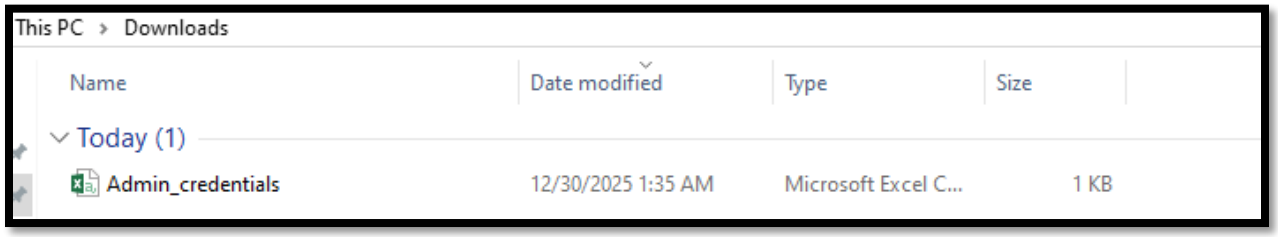


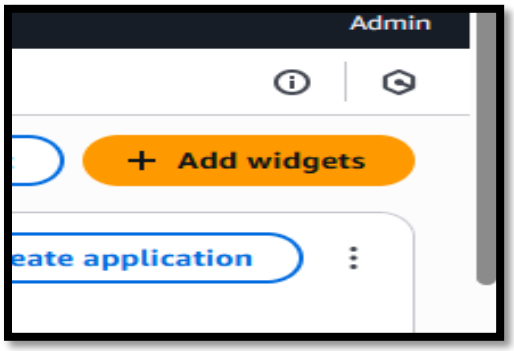



Permissions policies (1/1440)
Create policy
Choose one or more policies to attach to your new user.
Filter by Type
Search
All types
1 2 3 4 5 6 7 ... 72
Policy name
Type
Attached entities
AccessAnalyzerServiceRolePolicy
AWS managed
0
AccountManagementFromVercel
AWS managed
0
AdministratorAccess
AWS managed - job function
0
AdministratorAccess-Amplify
AWS managed
0

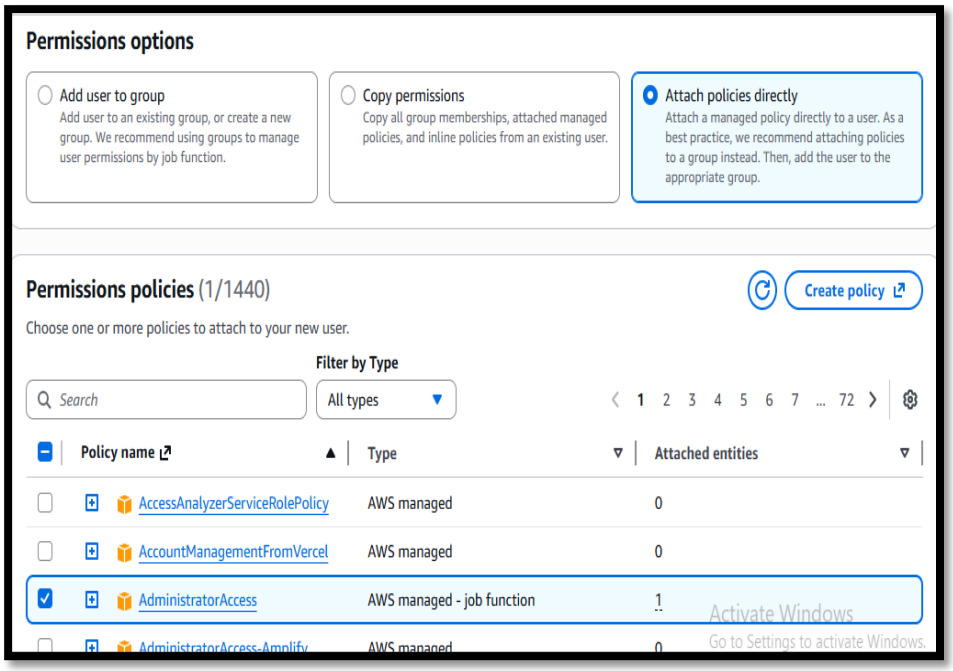

aws
Search
[Alt+S]
Ask Amazon Q
Globa
IAM
Users
Admin
Identity and Access Management (IAM)
Search IAM
Admin
Info
Summary

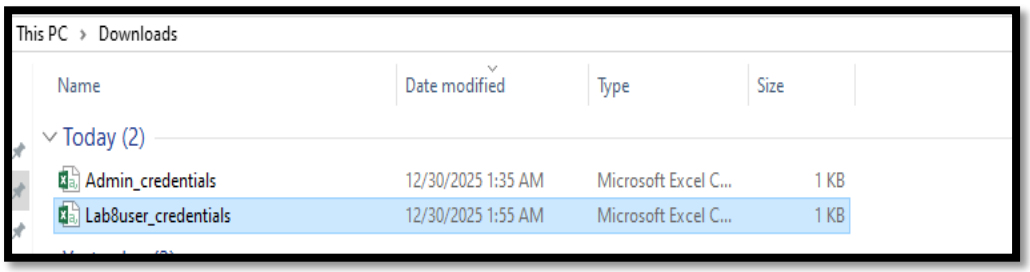

User created successfully
You can view and download the user's password and email instructions for signing in to the AWS Management Console.
View user

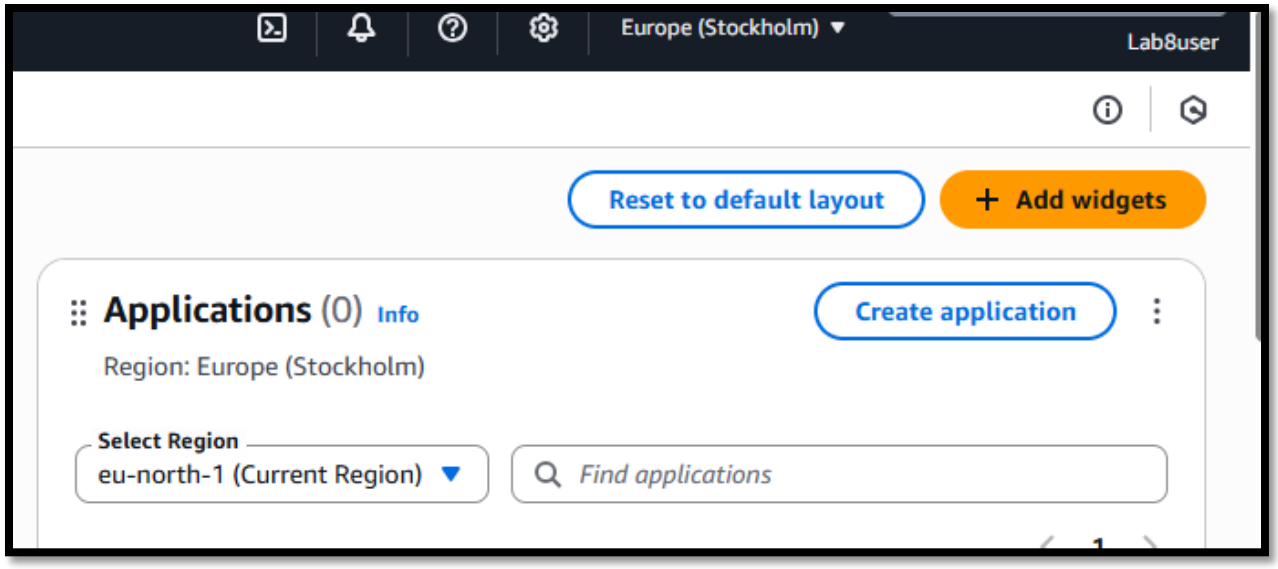

This PC
Downloads
Name
Date modified
Type
Size
Today (1)
Admin_credentials
12/30/2025 1:35 AM
Microsoft Excel C...
1 KB

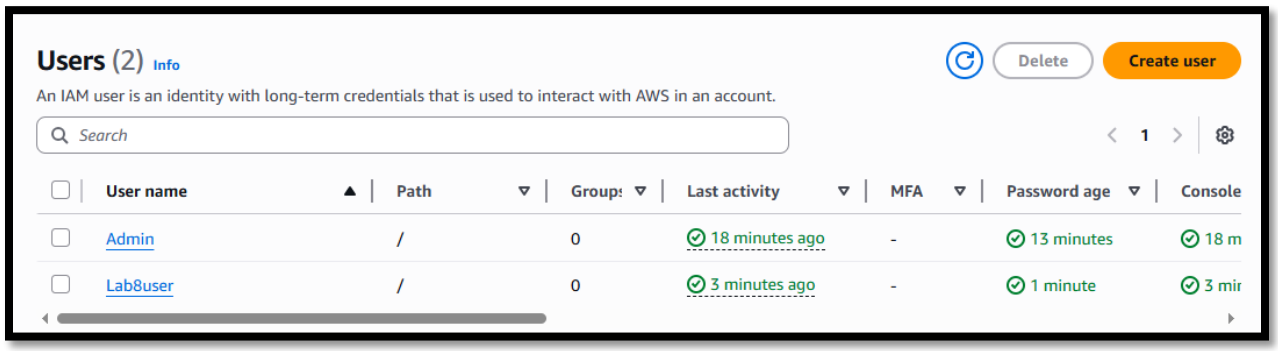

Admin
Add widgets
eate application

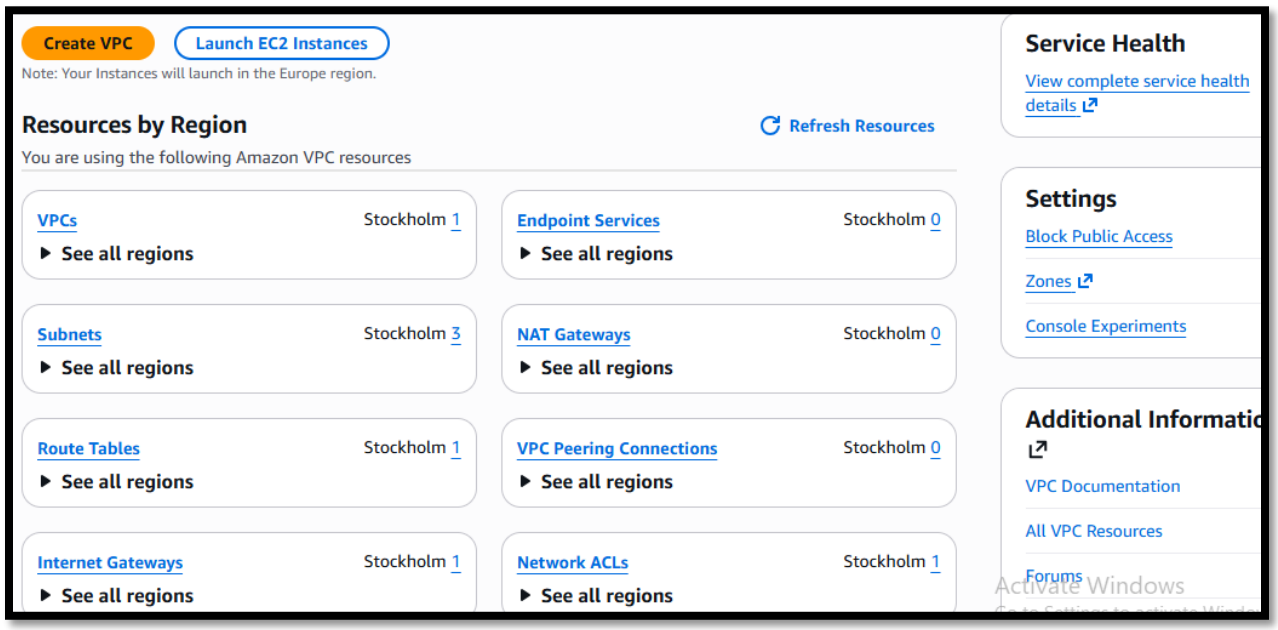

User details
User name
Lab8user
The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)
Provide user access to the AWS Management Console - optional
In addition to console access, users with SignInLocalDevelopmentAccess permissions can use the same console credentials for programmatic access without the need for access keys.
Console password
Autogenerated password
You can view the password after you create the user.
Custom password
Enter a custom password for the user.
Must be at least 8 characters long
Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # (hyphen) = [ ] { } | '
Show password
Users must create a new password at next sign-in - Recommended
Users automatically get the IAMUserChangePassword policy to allow them to change their own password.

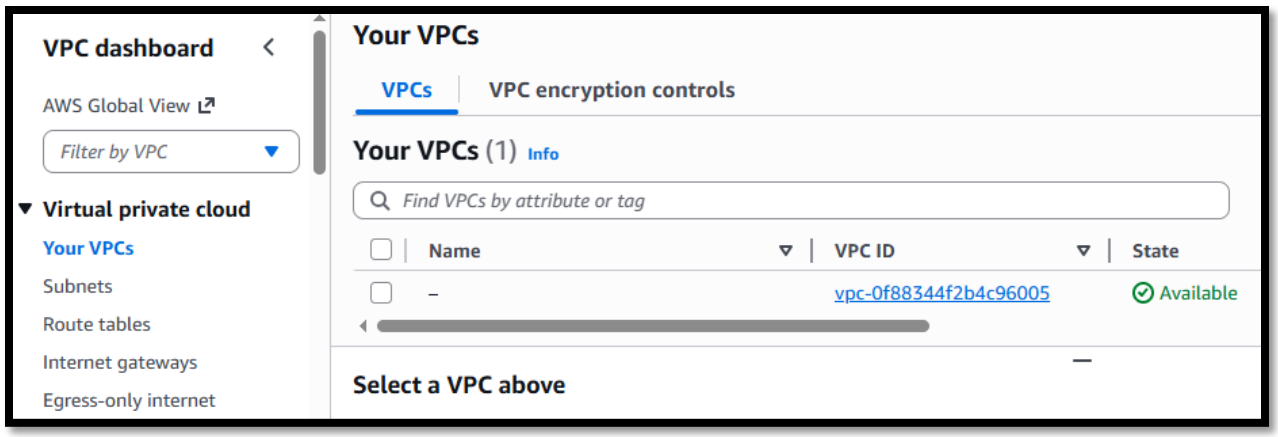

Permissions options
Add user to group
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.
Copy permissions
Copy all group memberships, attached managed policies, and inline policies from an existing user.
Attach policies directly
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 (1/1440)
Create policy
Choose one or more policies to attach to your new user.
Filter by Type
Search
All types
1 2 3 4 5 6 7 ... 72
Policy name
Type
Attached entities
AccessAnalyzerServiceRolePolicy
AWS managed
0
AccountManagementFromVercel
AWS managed
0
AdministratorAccess
AWS managed - job function
1
Activate Windows
Go to Settings to activate Windows.

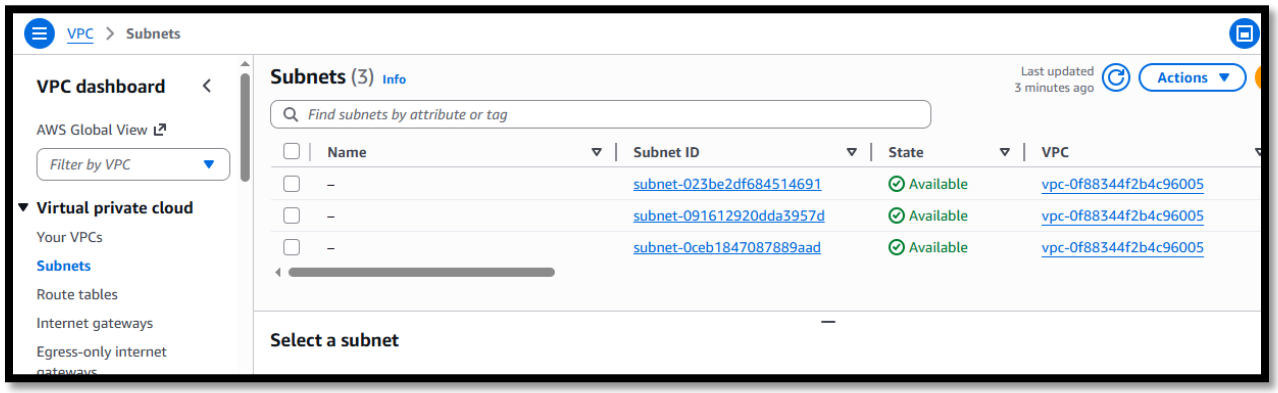

This PC › Downloads
Name
Date modified
Type
Size
Today (2)
Admin_credentials
12/30/2025 1:35 AM
Microsoft Excel C...
1 KB
Lab8user_credentials
12/30/2025 1:55 AM
Microsoft Excel C...
1 KB


Europe (Stockholm)
Lab8user
Reset to default layout
+ Add widgets
Applications (0) Info
Create application
Region: Europe (Stockholm)
Select Region
eu-north-1 (Current Region)
Find applications


Users (2) Info
Delete
Create user
An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.
Search
User name
Path
Groups
Last activity
MFA
Password age
Console
Admin
/
0
18 minutes ago
-
13 minutes
18 m
Lab8user
/
0
3 minutes ago
-
1 minute
3 mir


Create VPC
Launch EC2 Instances
Note: Your Instances will launch in the Europe region.
Resources by Region
Refresh Resources
You are using the following Amazon VPC resources
VPCs
Stockholm 1
See all regions
Endpoint Services
Stockholm 0
See all regions
Subnets
Stockholm 3
See all regions
NAT Gateways
Stockholm 0
See all regions
Route Tables
Stockholm 1
See all regions
VPC Peering Connections
Stockholm 0
See all regions
Internet Gateways
Stockholm 1
See all regions
Network ACLs
Stockholm 1
See all regions
Service Health
View complete service health details
Settings
Block Public Access
Zones
Console Experiments
Additional Informatio
VPC Documentation
All VPC Resources
Forums
Activate Windows

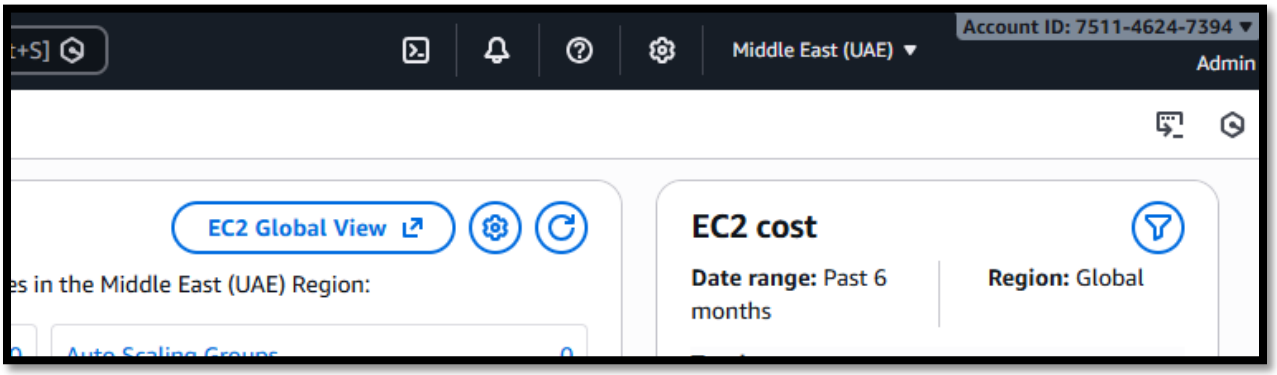

VPC dashboard
AWS Global View
Filter by VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet
Your VPCs
VPCs
VPC encryption controls
Your VPCs (1) Info
Find VPCs by attribute or tag
Name
VPC ID
State
–
vpc-0f88344f2b4c96005
Available
Select a VPC above

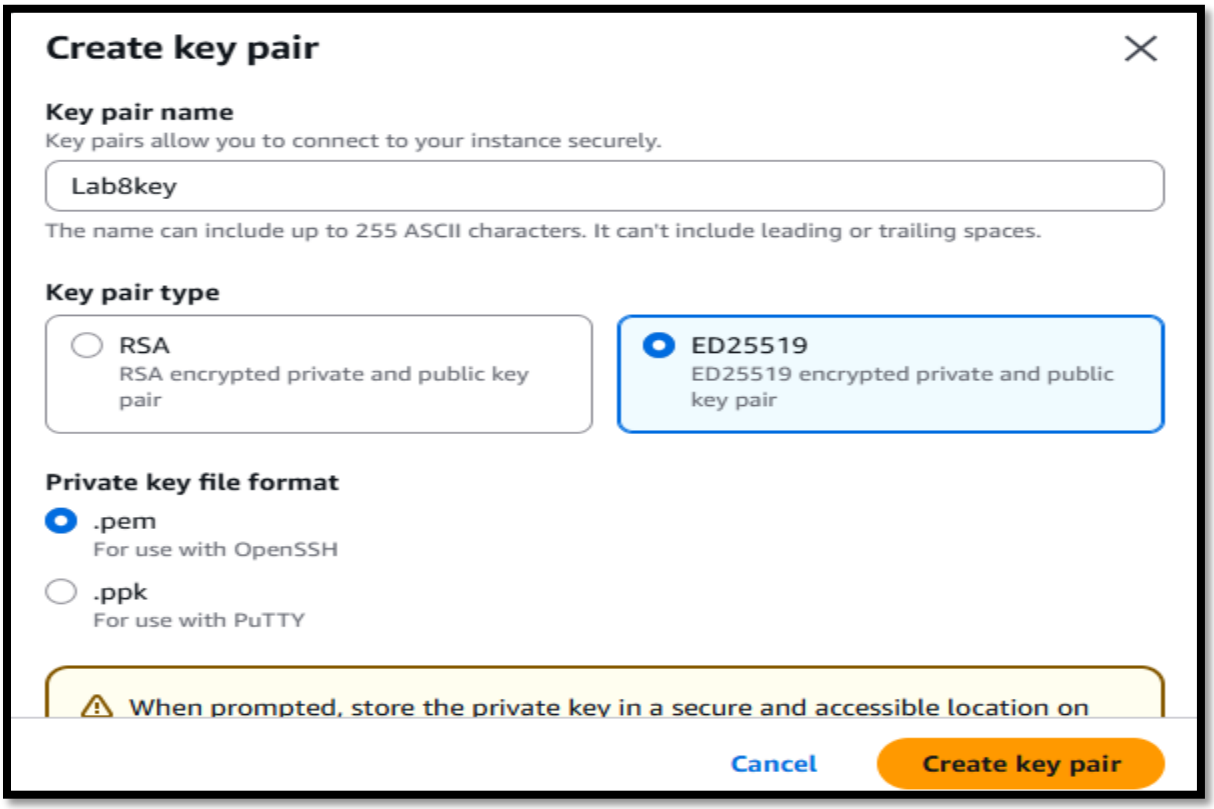

VPC > Subnets
VPC dashboard
AWS Global View
Filter by VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet
Subnets (3) Info
Last updated 3 minutes ago
Actions
Find subnets by attribute or tag
Name
Subnet ID
State
VPC
–
subnet-023be2df684514691
Available
vpc-0f88344f2b4c96005
–
subnet-091612920dda3957d
Available
vpc-0f88344f2b4c96005
–
subnet-0ceb1847087889aad
Available
vpc-0f88344f2b4c96005
Select a subnet

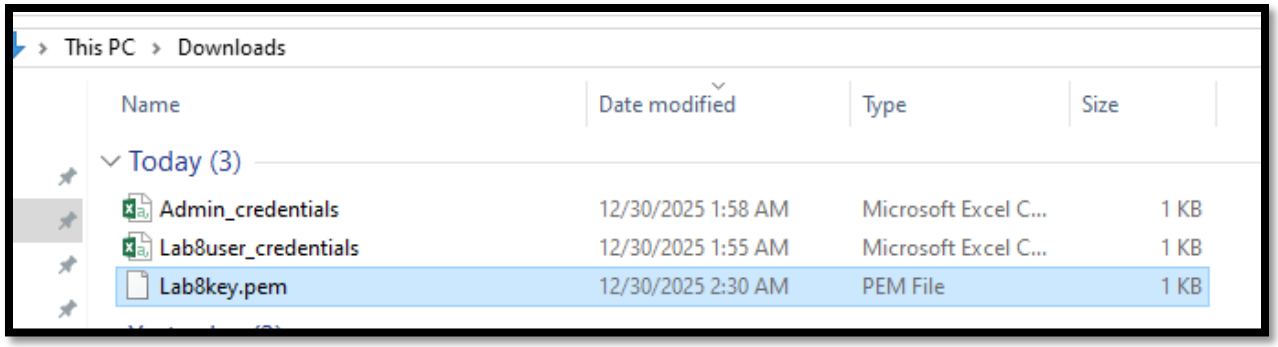

VPC > Route tables
VPC dashboard
AWS Global View
Filter by VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Route tables (1) Info
Last updated 4 minutes ago
Actions
Find route tables by attribute or tag
Name
Route table ID
Explicit subnet associ...
Edge associations
–
rtb-03fa5578f9e352639
–
–
Select a route table

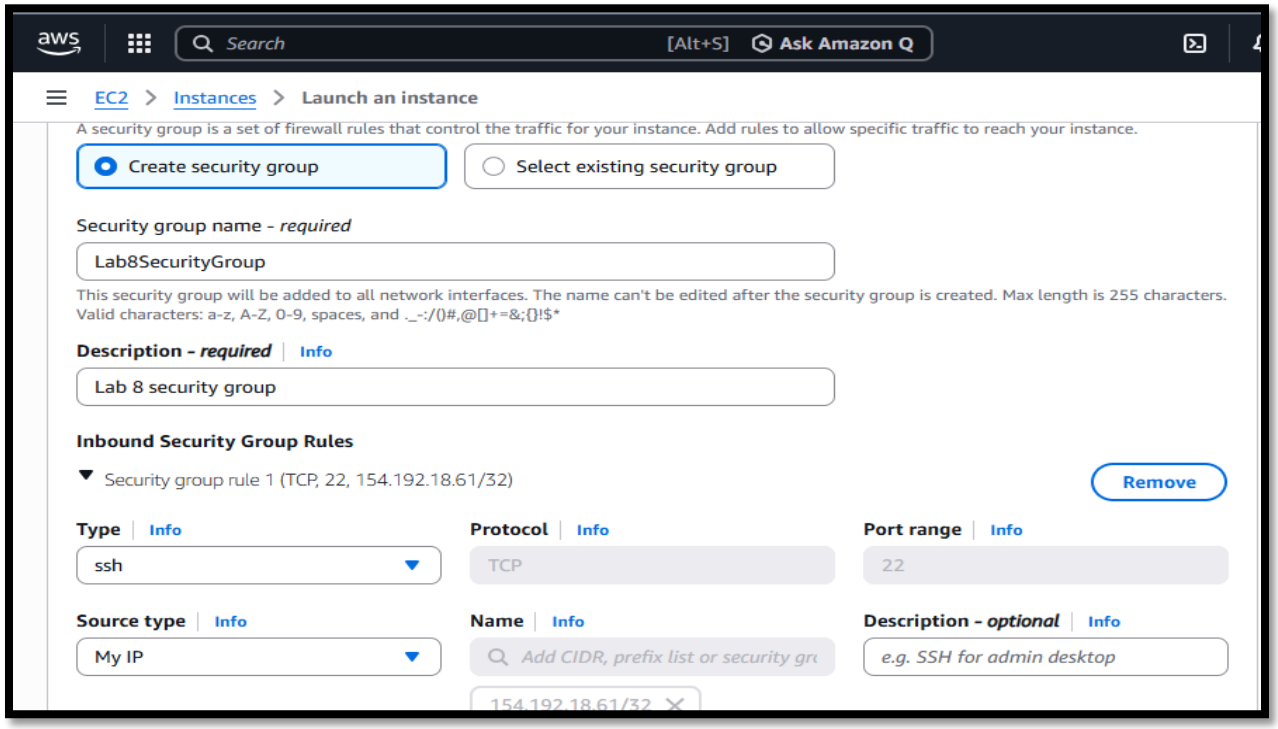

VPC > Network ACLs
Managed prefix lists
NAT gateways
Peering connections
Route servers
Security
Network ACLs
Security groups
PrivateLink and Lattice
Getting started
Endpoints
Network ACLs (1) Info
Actions
Find Network ACLs by attribute or tag
Name
Network ACL ID
Associated with
Default
–
acl-01be47e536141b9e8
3 Subnets
Yes
Select a network ACL

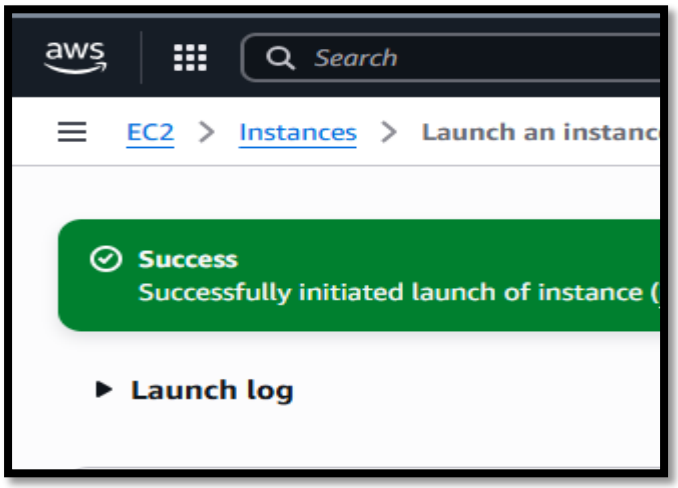
Task 4 — Launch EC2, SSH, install Docker & Docker Compose, deploy Gitea

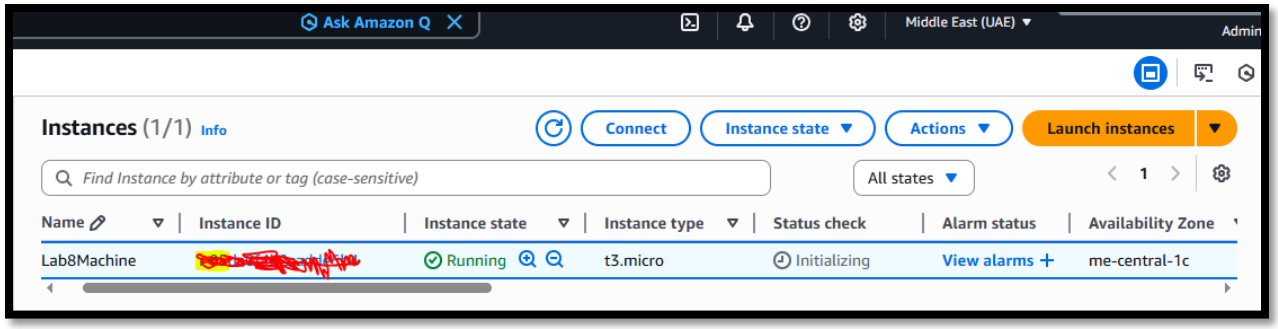




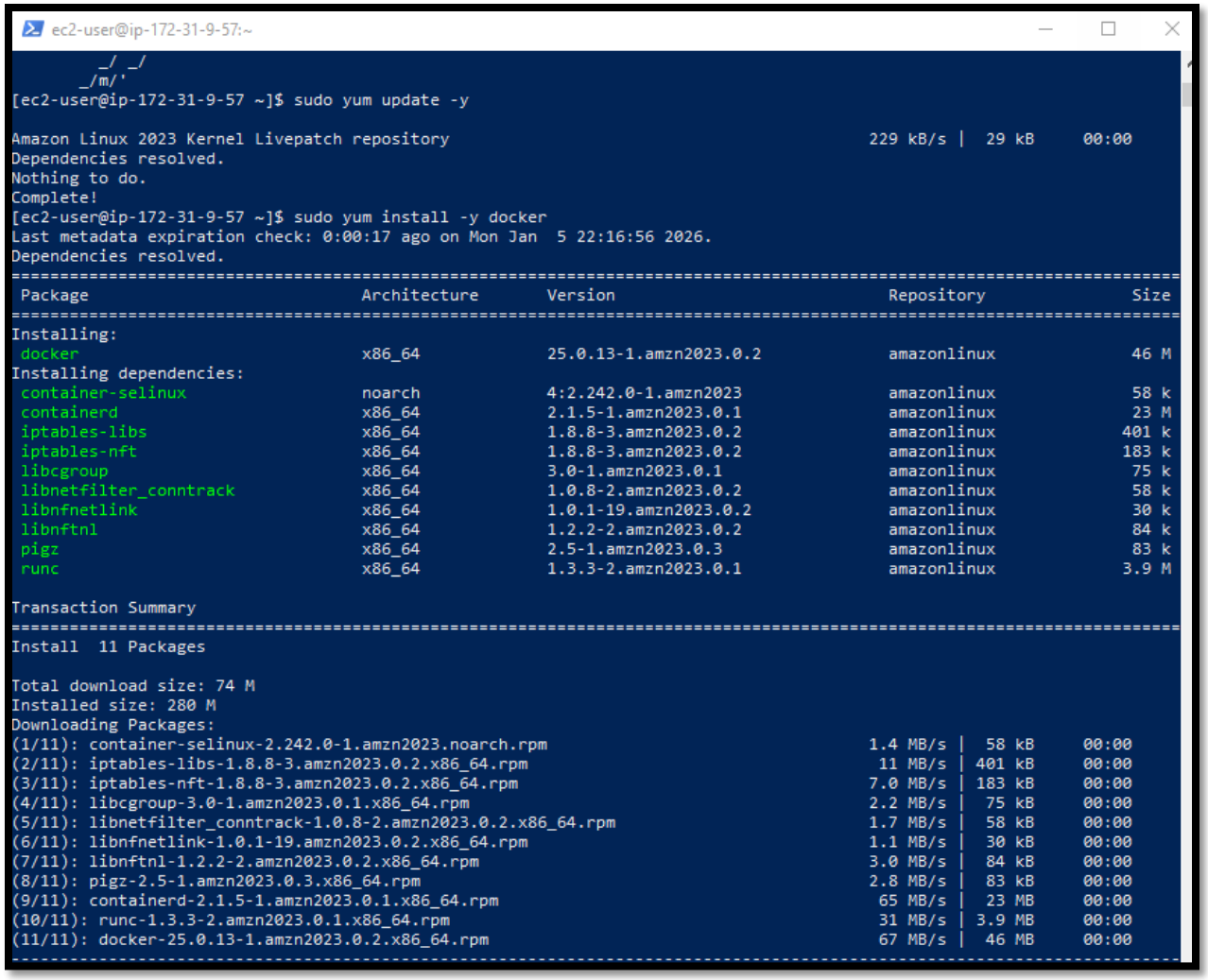

This PC › Downloads
Name
Date modified
Type
Size
Today (3)
Admin_credentials
12/30/2025 1:58 AM
Microsoft Excel C...
1 KB
Lab8user_credentials
12/30/2025 1:55 AM
Microsoft Excel C...
1 KB
Lab8key.pem
12/30/2025 2:30 AM
PEM File
1 KB

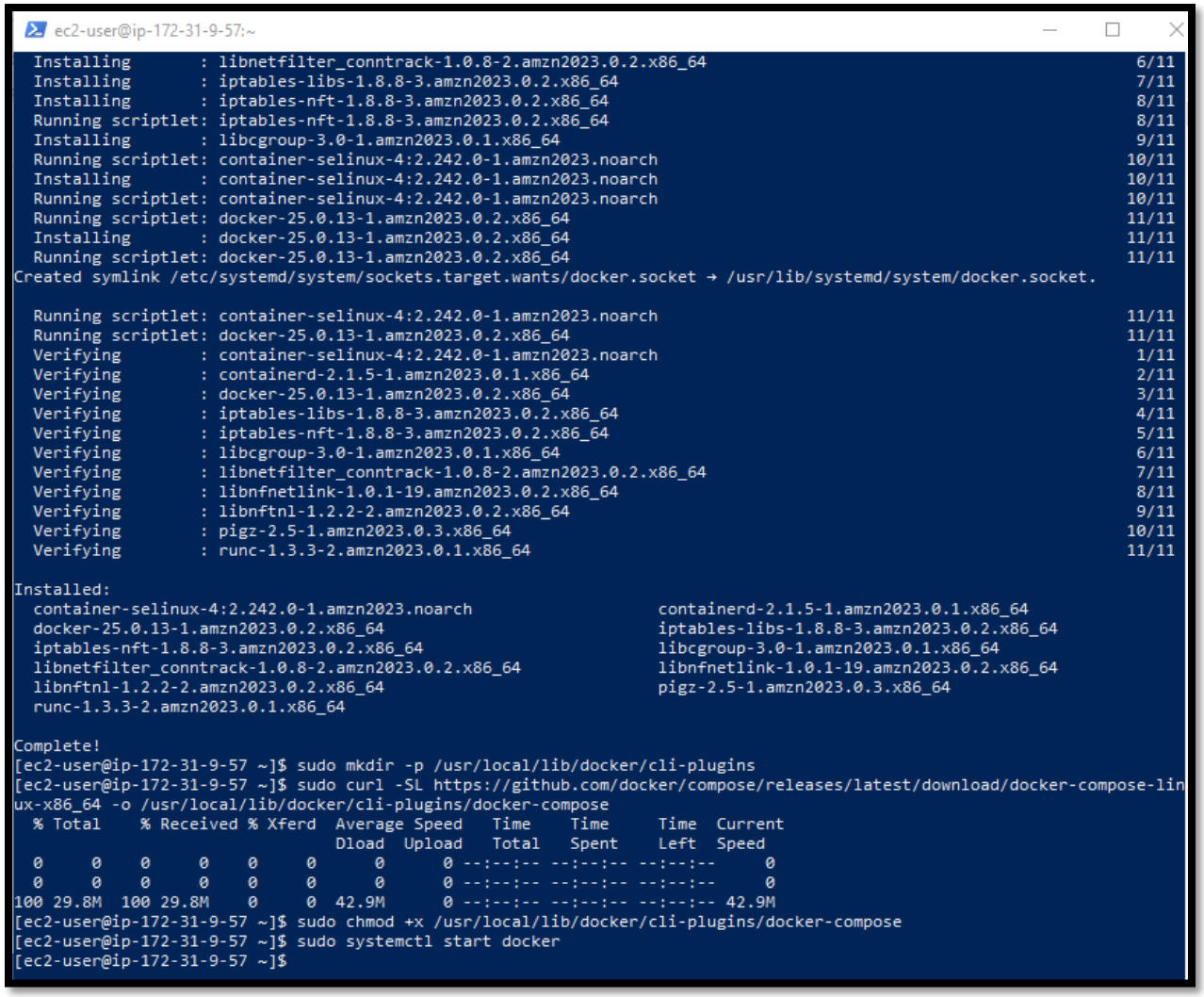

aws
Search
[Alt+S]
Ask Amazon Q
EC2 > Instances > Launch an instance
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.
Create security group
Select existing security group
Security group name - required
Lab8SecurityGroup
This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters.
Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!$*
Description - required | Info
Lab 8 security group
Inbound Security Group Rules
Security group rule 1 (TCP, 22, 154.192.18.61/32)
Remove
Type | Info
ssh
Protocol | Info
TCP
Port range | Info
22
Source type | Info
My IP
Name | Info
Add CIDR, prefix list or security gr
Description - optional | Info
e.g. SSH for admin desktop
154.192.18.61/32


aws
Search
EC2 > Instances > Launch an instanc
Success
Successfully initiated launch of instance (
Launch log




```
PS C:\Users\123\Downloads> cd $env:USERPROFILE\Downloads
>> ssh -i Lab8Key.pem ec2-user@3.28.192.99
The authenticity of host '3.28.192.99 (3.28.192.99)' can't be established.
ED25519 key fingerprint is SHA256:v/Viu4eiJ5OJKuagphIstW2aw62tJi6COfL1g71a03M.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.28.192.99' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
[ec2-user@ip-172-31-9-57 ~]$
```


ec2-user@ip-172-31-9-57:~
[ec2-user@ip-172-31-9-57 ~]$ sudo yum update -y
Amazon Linux 2023 Kernel Livepatch repository 229 kB/s | 29 kB 00:00
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-9-57 ~]$ sudo yum install -y docker
Last metadata expiration check: 0:00:17 ago on Mon Jan 5 22:16:56 2026.
Dependencies resolved.
Package Architecture Version Repository Size
Installing:
docker x86_64 25.0.13-1.amzn2023.0.2 amazonlinux 46 M
Installing dependencies:
container-selinux noarch 4:2.242.0-1.amzn2023 amazonlinux 58 k
containerd x86_64 2.1.5-1.amzn2023.0.1 amazonlinux 23 M
iptables-libs x86_64 1.8.8-3.amzn2023.0.2 amazonlinux 401 k
iptables-nft x86_64 1.8.8-3.amzn2023.0.2 amazonlinux 183 k
libcgroup x86_64 3.0-1.amzn2023.0.1 amazonlinux 75 k
libnetfilter_conntrack x86_64 1.0.8-2.amzn2023.0.2 amazonlinux 58 k
libnfnetlink x86_64 1.0.1-19.amzn2023.0.2 amazonlinux 30 k
libnftnl x86_64 1.2.2-2.amzn2023.0.2 amazonlinux 84 k
pigz x86_64 2.5-1.amzn2023.0.3 amazonlinux 83 k
runc x86_64 1.3.3-2.amzn2023.0.1 amazonlinux 3.9 M
Transaction Summary
Install 11 Packages
Total download size: 74 M
Installed size: 280 M
Downloading Packages:
(1/11): container-selinux-2.242.0-1.amzn2023.noarch.rpm 1.4 MB/s | 58 kB 00:00
(2/11): iptables-libs-1.8.8-3.amzn2023.0.2.x86_64.rpm 11 MB/s | 401 kB 00:00
(3/11): iptables-nft-1.8.8-3.amzn2023.0.2.x86_64.rpm 7.0 MB/s | 183 kB 00:00
(4/11): libcgroup-3.0-1.amzn2023.0.1.x86_64.rpm 2.2 MB/s | 75 kB 00:00
(5/11): libnetfilter_conntrack-1.0.8-2.amzn2023.0.2.x86_64.rpm 1.7 MB/s | 58 kB 00:00
(6/11): libnfnetlink-1.0.1-19.amzn2023.0.2.x86_64.rpm 1.1 MB/s | 30 kB 00:00
(7/11): libnftnl-1.2.2-2.amzn2023.0.2.x86_64.rpm 3.0 MB/s | 84 kB 00:00
(8/11): pigz-2.5-1.amzn2023.0.3.x86_64.rpm 2.8 MB/s | 83 kB 00:00
(9/11): containerd-2.1.5-1.amzn2023.0.1.x86_64.rpm 65 MB/s | 23 MB 00:00
(10/11): runc-1.3.3-2.amzn2023.0.1.x86_64.rpm 31 MB/s | 3.9 MB 00:00
(11/11): docker-25.0.13-1.amzn2023.0.2.x86_64.rpm 67 MB/s | 46 MB 00:00




```
[ec2-user@ip-172-31-9-57 ~]$ sudo vim compose.ymal
[ec2-user@ip-172-31-9-57 ~]$ [ec2-user@ip-172-31-9-57 ~]$ ls -l
total 4
-rw-r--r--. 1 root root 1128 Jan  5 22:31 compose.ymal
[ec2-user@ip-172-31-9-57 ~]$
```