



FATIMA JINNAH WOMEN UNIVERSITY

Submitted To:

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Section:

5A

CLOUD COMPUTING

LAB 9

Task 1 and 2

```
C:\Users\USMAN-PC>
C:\Users\USMAN-PC>winget install --id GitHub.cli
Found an existing package already installed. Trying to upgrade the installed package...
No available upgrade found.
No newer package versions are available from the configured sources.

C:\Users\USMAN-PC>s_
```

```
C:\Users\USMAN-PC>
C:\Users\USMAN-PC>winget install --id GitHub.cli
Found an existing package already installed. Trying to upgrade the installed package...
No available upgrade found.
No newer package versions are available from the configured sources.

C:\Users\USMAN-PC>gh auth login -s codespace
? Where do you use GitHub? GitHub.com
? What is your preferred protocol for Git operations on this host? HTTPS
? Authenticate Git with your GitHub credentials? Yes
? How would you like to authenticate GitHub CLI? Login with a web browser

! First copy your one-time code: 536E-5546
Press Enter to open https://github.com/login/device in your browser...
_
```



Authorize GitHub CLI

⚠ This authorization was requested from **Chakwal 103.149.9.130** on January 3rd, 2026 at 20:36 (PKT)
Make sure you trust this device as it will get access to your account.



GitHub CLI by [GitHub](#)

wants to access your 23-22411-027-max account



Codespace

Manage codespaces



Gists

Read and write access



Organizations and teams

Read-only access





Congratulations, you're all set!

Your device is now connected.

```
C:\Users\USMAN-PC>
C:\Users\USMAN-PC>gh codespace list
NAME                                DISPLAY NAME                REPOSITORY                  BRANCH  STATE
psychic-chainsaw-69xr9v9prg57...   psychic chainsaw            23-22411-027-max/new-...   main    Shutdown
congenial-invention-4jpgjqjrg...    congenial invention         23-22411-027-max/lab9     main    Shutdown
humble-lamp-96vxxqrpjpcxvgr        humble lamp                  23-22411-027-max/lab10cc  main*   Shutdown
congenial-space-fiesta-r45r47...    congenial space fiesta      23-22411-027-max/LAB11CC  main*   Shutdown
super-space-dollop-7vjrv7vxr9...    super space dollop          23-22411-027-max/TERR...  main    Shutdown
friendly-cod-jjp4jrjgrx7wfq57w     friendly cod                 23-22411-027-max/lab-12   main    Shutdown
C:\Users\USMAN-PC>
C:\Users\USMAN-PC>gh codespace ssh -c humble-lamp-96vxxqrpjpcxvgr
Waiting for codespace to become ready
```

```
C:\Users\USMAN-PC>gh codespace ssh -c congenial-invention-4jpgjqjrggxr2q7r
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.8.0-1030-azure x86_64)
```

```
* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro
```

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

```
@23-22411-027-max  /workspaces/lab9 (main) $
@23-22411-027-max  /workspaces/lab9 (main) $
```

```

creating: aws/dist/awsccli/customizations/wizard/wizards/iam/
creating: aws/dist/awsccli/customizations/wizard/wizards/lambda/
inflating: aws/dist/awsccli/customizations/wizard/wizards/configure/_main.yml
inflating: aws/dist/awsccli/customizations/wizard/wizards/events/new-rule.yml
inflating: aws/dist/awsccli/customizations/wizard/wizards/dynamodb/new-table.yml
inflating: aws/dist/awsccli/customizations/wizard/wizards/lambda/new-function.yml
inflating: aws/dist/awsccli/customizations/wizard/wizards/iam/new-role.yml
inflating: aws/dist/awsccli/customizations/sso/index.html
inflating: aws/dist/awsccli/data/metadata.json
inflating: aws/dist/awsccli/data/cli.json
inflating: aws/dist/awsccli/data/ac.index
creating: aws/dist/prompt_toolkit-3.0.51.dist-info/licenses/
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/top_level.txt
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/METADATA
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/WHEEL
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/INSTALLER
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/RECORD
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/licenses/AUTHORS.rst
inflating: aws/dist/prompt_toolkit-3.0.51.dist-info/licenses/LICENSE
inflating: aws/dist/wheel-0.45.1.dist-info/WHEEL
inflating: aws/dist/wheel-0.45.1.dist-info/LICENSE.txt
inflating: aws/dist/wheel-0.45.1.dist-info/METADATA
inflating: aws/dist/wheel-0.45.1.dist-info/REQUESTED
inflating: aws/dist/wheel-0.45.1.dist-info/INSTALLER
inflating: aws/dist/wheel-0.45.1.dist-info/direct_url.json
inflating: aws/dist/wheel-0.45.1.dist-info/entry_points.txt
inflating: aws/dist/wheel-0.45.1.dist-info/RECORD
@23-22411-027-max @ /workspaces/lab9 (main) $ sudo ./aws/install
You can now run: /usr/local/bin/aws --version
@23-22411-027-max @ /workspaces/lab9 (main) $

```

```

inflating: aws/dist/wheel-0.45.1.dist-info/METADATA
inflating: aws/dist/wheel-0.45.1.dist-info/REQUESTED
inflating: aws/dist/wheel-0.45.1.dist-info/INSTALLER
inflating: aws/dist/wheel-0.45.1.dist-info/direct_url.json
inflating: aws/dist/wheel-0.45.1.dist-info/entry_points.txt
inflating: aws/dist/wheel-0.45.1.dist-info/RECORD
@23-22411-027-max @ /workspaces/lab9 (main) $ sudo ./aws/install
You can now run: /usr/local/bin/aws --version
@23-22411-027-max @ /workspaces/lab9 (main) $ aws --version
aws-cli/2.32.28 Python/3.13.11 Linux/6.8.0-1030-azure exe/x86_64.ubuntu.24
@23-22411-027-max @ /workspaces/lab9 (main) $ aws configure
AWS Access Key ID [None]: AKIATC2FAR6CN26MZ40S
AWS Secret Access Key [None]: /7o3jYrtCKZW9yazaU9sGFhyPbb9Zp1d7WVyEqiY
Default region name [None]: me-central-1
Default output format [None]: json
@23-22411-027-max @ /workspaces/lab9 (main) $ cat ~/.aws/credentials
[default]
aws_access_key_id = AKIATC2FAR6CN26MZ40S
aws_secret_access_key = /7o3jYrtCKZW9yazaU9sGFhyPbb9Zp1d7WVyEqiY
@23-22411-027-max @ /workspaces/lab9 (main) $ cat ~/.aws/config
[default]
region = me-central-1
output = json
@23-22411-027-max @ /workspaces/lab9 (main) $ aws sts get-caller-identity
{
  "UserId": "AIDATC2FAR6CKZM7UCAFY",
  "Account": "212208750468",
  "Arn": "arn:aws:iam::212208750468:user/Admin"
}
@23-22411-027-max @ /workspaces/lab9 (main) $

```

Task 3 and 4


```

    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ curl icanhazip.com
20.192.21.54
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 authorize-security-group-ingress \
> --group-id sg-0227bfd7b8bdef976 \
> --protocol tcp \
> --port 22 \
> --cidr 20.192.21.54/32 \
> --region me-central-1
{
  "Return": true,
  "SecurityGroupRules": [
    {
      "SecurityGroupRuleId": "sgr-0ae4f632e156b653d",
      "GroupId": "sg-0227bfd7b8bdef976",
      "GroupOwnerId": "212208750468",
      "IsEgress": false,
      "IpProtocol": "tcp",
      "FromPort": 22,
      "ToPort": 22,
      "CidrIpv4": "20.192.21.54/32",
      "SecurityGroupRuleArn": "arn:aws:ec2:me-central-1:212208750468:security-group-rule/sgr-0ae4f632e156b653d"
    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ sS

```

```

}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-security-groups --group-ids sg-0227bfd7b8bdef976 --region me-central-1
{
  "SecurityGroups": [
    {
      "GroupId": "sg-0227bfd7b8bdef976",
      "IpPermissionsEgress": [
        {
          "IpProtocol": "-1",
          "UserIdGroupPairs": [],
          "IpRanges": [
            {
              "CidrIp": "0.0.0.0/0"
            }
          ],
          "Ipv6Ranges": [],
          "PrefixListIds": []
        }
      ],
      "VpcId": "vpc-0d9a5bd95fa646fd5",
      "SecurityGroupArn": "arn:aws:ec2:me-central-1:212208750468:security-group/sg-0227bfd7b8bdef976",
      "OwnerId": "212208750468",
      "GroupName": "MySecurityGroup",
      "Description": "My Security Group",
      "IpPermissions": [
        {
          "IpProtocol": "tcp"
        }
      ]
    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 create-key-pair \
> --key-name MyED25519Key2 \
> --key-type ed25519 \
> --key-format pem \
> --query 'KeyMaterial' \
> --output text > MyED25519Key2.pem
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-key-pairs
{
  "KeyPairs": [
    {
      "KeyPairId": "key-0ae5b6eea3cf29cba",
      "KeyType": "ed25519",
      "Tags": [],
      "CreateTime": "2025-12-30T13:24:39.272000+00:00",
      "KeyName": "prod-web-3-3-key",
      "KeyFingerprint": "uGbvEHEkj0EdViA/7gVoBwXoQjsw12+bM6WZDbAsnvc="
    },
    {
      "KeyPairId": "key-01d772d3858cbba73",
      "KeyType": "ed25519",
      "Tags": [],
      "CreateTime": "2025-12-30T13:24:39.350000+00:00",
      "KeyName": "prod-web-2-2-key",
      "KeyFingerprint": "uGbvEHEkj0EdViA/7gVoBwXoQjsw12+bM6WZDbAsnvc="
    },
    {
      "KeyPairId": "key-016ddb688353132d2",
      "KeyType": "ed25519",
      "Tags": [],
      "CreateTime": "2026-01-01T19:28:00.074000+00:00",
      "KeyName": "MyED25519Key",
      "KeyFingerprint": "1NXHI0vaOnECy+vhacwsLbhokuw2bum6nuWG72GbIp4="
    },
    {
      "KeyPairId": "key-0932067197856e6b2",
      "KeyType": "rsa",
    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $

```



```

> --key-name MyED25519Key \
> --key-type ed25519 \
> --key-format pem \
> --query 'KeyMaterial' \
> --output text \
> --region me-central-1 > MyED25519Key.pem

@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ chmod 400 MyED25519Key.pem
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 run-instances \
> --image-id ami-05e66df2bafcb7dea \
> --count 1 \
> --instance-type t3.micro \
> --key-name MyED25519Key \
> --security-group-ids sg-0227bfd7b8bdef976 \
> --subnet-id subnet-0a80547ecbb2cf81d \
> --tag-specifications 'ResourceType=instance,Tags=[{Key=Name,Value=MyServer}]' \
> --region me-central-1
{
  "ReservationId": "r-05456ac9b2570f15a",
  "OwnerId": "212208750468",
  "Groups": [],
  "Instances": [
    {
      "Architecture": "x86_64",
      "BlockDeviceMappings": [],
      "ClientToken": "2ab5d651-8a85-4bb1-b1f9-48a01e243fd9",
      "Architecture": "x86_64",
      "BlockDeviceMappings": [],
      "ClientToken": "2ab5d651-8a85-4bb1-b1f9-48a01e243fd9",
      "EbsOptimized": false,
      "EnaSupport": true,
      "Hypervisor": "xen",
      "NetworkInterfaces": [
        {
          "Attachment": {
            "AttachTime": "2026-01-03T16:55:21+00:00",
            "AttachmentId": "eni-attach-002fbb7e22cc888e8",
            "DeleteOnTermination": true,
            "DeviceIndex": 0,
            "Status": "attaching",
            "NetworkCardIndex": 0
          },
          "Description": "",
          "Groups": [
            {
              "GroupId": "sg-0227bfd7b8bdef976",
              "GroupName": "MySecurityGroup"
            }
          ],
          "Ipv6Addresses": [],

```

```
{
  "ReservationId": "r-03446ddb75af92a2",
  "OwnerId": "212208750468",
  "Groups": [],
  "Instances": [
    {
      "Architecture": "x86_64",
      "BlockDeviceMappings": [],
      "ClientToken": "1d31d256-35fa-4329-881e-bb81109761c9",
      "EbsOptimized": false,
      "EnaSupport": true,
      "Hypervisor": "xen",
      "NetworkInterfaces": [
        {
          "Attachment": {
            "AttachTime": "2026-01-03T17:02:05+00:00",
            "AttachmentId": "eni-attach-03cdf6f6409008b7b",
            "DeleteOnTermination": true,
            "AttachmentId": "eni-attach-03cdf6f6409008b7b",
            "DeleteOnTermination": true,
            "DeviceIndex": 0,
            "Status": "attaching",
            "NetworkCardIndex": 0
          },
          "Description": "",
          "Groups": [
            {
              "GroupId": "sg-0227bfd7b8bdef976",
              "GroupName": "MySecurityGroup"
            }
          ],
          "Ipv6Addresses": [],

```

```
ec2-user@ip-10-0-10-83 ~$ aws ec2 start-instances --instance-ids i-0202f6c2
```

```
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 stop-instances --instance-ids i-0282facac818f3072 --region me-central-1
{
  "StoppingInstances": [
    {
      "InstanceId": "i-0282facac818f3072",
      "CurrentState": {
        "Code": 64,
        "Name": "stopping"
      },
      "PreviousState": {
        "Code": 16,
        "Name": "running"
      }
    }
  ]
}
```

```
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --instance-ids i-0282facac818f3072 \
> --region me-central-1 \
> --query "Reservations[*].Instances[*].[InstanceId,State.Name]" \
> --output table
-----
| DescribeInstances |
+-----+-----+
| i-0282facac818f3072 | stopped |
+-----+-----+
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 start-instances --instance-ids i-0282facac818f3072 --region me-central-1
{
  "StartingInstances": [
    {
      "InstanceId": "i-0282facac818f3072",
      "CurrentState": {
        "Code": 0,
        "Name": "pending"
      },
      "PreviousState": {
        "Code": 64,
        "Name": "stopping"
      }
    }
  ]
}
```

```
tral-1
{
  "StartingInstances": [
    {
      "InstanceId": "i-0282facac818f3072",
      "CurrentState": {
        "Code": 0,
        "Name": "pending"
      },
      "PreviousState": {
        "Code": 80,
        "Name": "stopped"
      }
    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --instance-ids i-0282facac818f3072 \
> --region me-central-1 \
> --query "Reservations[*].Instances[*].[InstanceId,State.Name,PublicIpAddress]" \
> --output table
-----
| DescribeInstances |
+-----+-----+-----+
| i-0282facac818f3072 | running | 3.29.67.1 |
+-----+-----+-----+
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $
```

Task5

```

@23-22411-027-max  /workspaces/lab9 (main) $ aws ec2 describe-security-groups
{
  "SecurityGroups": [
    {
      "GroupId": "sg-0227bfd7b8bdef976",
      "IpPermissionsEgress": [
        {
          "IpProtocol": "-1",
          "UserIdGroupPairs": [],
          "IpRanges": [
            {
              "CidrIp": "0.0.0.0/0"
            }
          ],
          "Ipv6Ranges": [],
          "PrefixListIds": []
        }
      ],
      "VpcId": "vpc-0d9a5bd95fa646fd5",
      "SecurityGroupArn": "arn:aws:ec2:me-central-1:212208750468:security-group/sg-0227bfd7b8bdef976",
      "OwnerId": "212208750468",
      "GroupName": "MySecurityGroup",
      "Description": "My Security Group",
      "IpPermissions": [
        {
          "IpProtocol": "tcp",
          "FromPort": 22,
          "ToPort": 22,
          "IpRanges": [

```

```

@23-22411-027-max  /workspaces/lab9 (main) $ aws ec2 describe-vpcs
{
  "Vpcs": [
    {
      "OwnerId": "212208750468",
      "InstanceTenancy": "default",
      "CidrBlockAssociationSet": [
        {
          "AssociationId": "vpc-cidr-assoc-08402ecaef41d96bc",
          "CidrBlock": "10.0.0.0/16",
          "CidrBlockState": {
            "State": "associated"
          }
        }
      ],
      "IsDefault": false,
      "Tags": [
        {
          "Key": "Environment",
          "Value": "prod"
        },
        {
          "Key": "ManagedBy",
          "Value": "Terraform"
        },
        {
          "Key": "Name",
          "Value": "prod-vpc"
        }
      ]
    }
  ]
}

```

```
@23-22411-027-max ▢ /workspaces/lab9 (main) $ aws ec2 describe-subnets
```

```
{
  "Subnets": [
    {
      "AvailabilityZoneId": "mec1-az1",
      "MapCustomerOwnedIpOnLaunch": false,
      "OwnerId": "212208750468",
      "AssignIpv6AddressOnCreation": false,
      "Ipv6CidrBlockAssociationSet": [],
      "SubnetArn": "arn:aws:ec2:me-central-1:212208750468:subnet/subnet-0af12daab35e04f30",
      "EnableDns64": false,
      "Ipv6Native": false,
      "PrivateDnsNameOptionsOnLaunch": {
        "HostnameType": "ip-name",
        "EnableResourceNameDnsARecord": false,
        "EnableResourceNameDnsAAAARecord": false
      },
      "BlockPublicAccessStates": {
        "InternetGatewayBlockMode": "off"
      },
      "SubnetId": "subnet-0af12daab35e04f30",
      "State": "available",
      "VpcId": "vpc-0a3ccfa34f8ccf642",
      "CidrBlock": "172.31.32.0/20",
      "AvailableIpAddressCount": 4091,
      "AvailabilityZone": "me-central-1a",
      "DefaultForAz": true,
      "MapPublicIpOnLaunch": true
    }
  ]
}
```

```
@23-22411-027-max ▢ /workspaces/lab9 (main) $ aws ec2 describe-instances
```

```
{
  "Reservations": [
    {
      "ReservationId": "r-0a43575f8a18a0697",
      "OwnerId": "212208750468",
      "Groups": [],
      "Instances": [
        {
          "Architecture": "x86_64",
          "BlockDeviceMappings": [],
          "ClientToken": "terraform-20251230071905916900000002",
          "EbsOptimized": false,
          "EnaSupport": true,
          "Hypervisor": "xen",
          "NetworkInterfaces": [],
          "RootDeviceName": "/dev/xvda",
          "RootDeviceType": "ebs",
          "SecurityGroups": [],
          "StateReason": {
            "Code": "Client.UserInitiatedShutdown",
            "Message": "Client.UserInitiatedShutdown: User initiated shutdown"
          },
          "Tags": [
            {
              "Key": "Name",
              "Value": "nginx-server"
            }
          ]
        }
      ]
    }
  ]
}
```

```

    key : Environment ,
@23-22411-027-max  /workspaces/lab9 (main) $ aws ec2 describe-regions
{
  "Regions": [
    {
      "OptInStatus": "opt-in-not-required",
      "RegionName": "ap-south-1",
      "Endpoint": "ec2.ap-south-1.amazonaws.com"
    },
    {
      "OptInStatus": "opt-in-not-required",
      "RegionName": "eu-north-1",
      "Endpoint": "ec2.eu-north-1.amazonaws.com"
    },
    {
      "OptInStatus": "opt-in-not-required",
      "RegionName": "eu-west-3",
      "Endpoint": "ec2.eu-west-3.amazonaws.com"
    },
    {
      "OptInStatus": "opt-in-not-required",
      "RegionName": "eu-west-2",
      "Endpoint": "ec2.eu-west-2.amazonaws.com"
    },
    {
      "OptInStatus": "opt-in-not-required",
      "RegionName": "eu-west-1",
      "Endpoint": "ec2.eu-west-1.amazonaws.com"
    }
  ],
  "ResponseMetadata": {
    "RequestId": "a1b2c3d4-e5f6-7890-1234-567890123456",
    "HTTPStatusCode": 200,
    "HostId": "us-east-1",
    "RequestID": "a1b2c3d4-e5f6-7890-1234-567890123456",
    "APIVersion": "2016-11-01"
  }
}

```

```

@23-22411-027-max  /workspaces/lab9 (main) $ aws ec2 describe-availability-zones
{
  "AvailabilityZones": [
    {
      "OptInStatus": "opt-in-not-required",
      "Messages": [],
      "RegionName": "me-central-1",
      "ZoneName": "me-central-1a",
      "ZoneId": "mec1-az1",
      "GroupName": "me-central-1-zg-1",
      "NetworkBorderGroup": "me-central-1",
      "ZoneType": "availability-zone",
      "GroupLongName": "Middle East (UAE) 1",
      "State": "available"
    },
    {
      "OptInStatus": "opt-in-not-required",
      "Messages": [],
      "RegionName": "me-central-1",
      "ZoneName": "me-central-1b",
      "ZoneId": "mec1-az2",
      "GroupName": "me-central-1-zg-1",
      "NetworkBorderGroup": "me-central-1",
      "ZoneType": "availability-zone",
      "GroupLongName": "Middle East (UAE) 1",
      "State": "available"
    }
  ],
  "ResponseMetadata": {
    "RequestId": "a1b2c3d4-e5f6-7890-1234-567890123456",
    "HTTPStatusCode": 200,
    "HostId": "us-east-1",
    "RequestID": "a1b2c3d4-e5f6-7890-1234-567890123456",
    "APIVersion": "2016-11-01"
  }
}

```

TASK6

```

    "OptInStatus": "Opt-In-Not-Required",
    "Messages": [],
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam create-group --group-name MyGroupCli
{
  "Group": {
    "Path": "/",
    "GroupName": "MyGroupCli",
    "GroupId": "AGPATC2FAR6CA6Q3LCTV5",
    "Arn": "arn:aws:iam::212208750468:group/MyGroupCli",
    "CreateDate": "2026-01-03T17:24:28+00:00"
  }
}
@23-22411-027-max @ /workspaces/lab9 (main) $
3. Create user:

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam get-group --group-name MyGroupCli
{
  "Users": [],
  "Group": {
    "Path": "/",
    "GroupName": "MyGroupCli",
    "GroupId": "AGPATC2FAR6CA6Q3LCTV5",
    "Arn": "arn:aws:iam::212208750468:group/MyGroupCli",
    "CreateDate": "2026-01-03T17:24:28+00:00"
  }
}

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam create-user --user-name MyUserCli
{
  "User": {
    "Path": "/",
    "UserName": "MyUserCli",
    "UserId": "AIDATC2FAR6CNYQK07YL",
    "Arn": "arn:aws:iam::212208750468:user/MyUserCli",
    "CreateDate": "2026-01-03T17:25:16+00:00"
  }
}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ ^V
-bash: $'\026': command not found
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam get-user --user-name MyUserCli
{
  "User": {
    "Path": "/",
    "UserName": "MyUserCli",
    "UserId": "AIDATC2FAR6CNYQK07YL",
    "Arn": "arn:aws:iam::212208750468:user/MyUserCli",
    "CreateDate": "2026-01-03T17:25:16+00:00"
  }
}

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam add-user-to-group --user-name MyUserCli --group-name MyGroupCli
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam get-group --group-name MyGroupCli
{
  "Users": [
    {
      "Path": "/",
      "UserName": "MyUserCli",
      "UserId": "AIDATC2FAR6CNYQK07YL",
      "Arn": "arn:aws:iam::212208750468:user/MyUserCli",
      "CreateDate": "2026-01-03T17:25:16+00:00"
    }
  ],
  "Group": {
    "Path": "/",
    "GroupName": "MyGroupCli",
    "GroupId": "AGPATC2FAR6CA6Q3LCTV5",
    "Arn": "arn:aws:iam::212208750468:group/MyGroupCli",
    "CreateDate": "2026-01-03T17:24:28+00:00"
  }
}

```

```
@23-22411-027-max [ ] /workspaces/lab9 (main) $ aws iam list-policies \
> --query "Policies[?contains(PolicyName, 'EC2')].{Name:PolicyName}" \
> --output text
AmazonEC2FullAccess
AmazonEC2ReadOnlyAccess
AmazonElasticMapReduceforEC2Role
AmazonEC2RoleforDataPipelineRole
AmazonEC2ContainerServiceforEC2Role
AmazonEC2ContainerServiceRole
AmazonEC2RoleforAWSCodeDeploy
AmazonEC2RoleforSSM
CloudWatchActionsEC2Access
AmazonEC2ContainerRegistryReadOnly
AmazonEC2ContainerRegistryPowerUser
AmazonEC2ContainerRegistryFullAccess
AmazonEC2ContainerServiceAutoscaleRole
AmazonEC2SpotFleetAutoscaleRole
AWSElasticBeanstalkCustomPlatformforEC2Role
AmazonEC2ContainerServiceEventsRole
AmazonEC2SpotFleetTaggingRole
AWSSEC2SpotServiceRolePolicy
AWSServiceRoleForEC2ScheduledInstances
AWSSEC2SpotFleetServiceRolePolicy
AWSApplicationAutoscalingEC2SpotFleetRequestPolicy
AWSSEC2FleetServiceRolePolicy
AWSAutoScalingPlansEC2AutoScalingPolicy
EC2InstanceConnect
AmazonEC2RolePolicyForLaunchWizard
@23-22411-027-max [ ] /workspaces/lab9 (main) $ aws iam list-policies --query 'Policies[?PolicyName==`AmazonEC2FullAccess`].{Name:PolicyName, ARN:Arn}' --output table
+-----+-----+
| ListPolicies |
+-----+-----+
| ARN | Name |
+-----+-----+
| arn:aws:iam::aws:policy/AmazonEC2FullAccess | AmazonEC2FullAccess |
+-----+-----+
@23-22411-027-max [ ] /workspaces/lab9 (main) $ aws iam attach-group-policy \
```



```

-----ListPolicies-----
-----+-----+-----+
| ARN | Name |
|-----+-----+-----+
| arn:aws:iam::aws:policy/AmazonEC2FullAccess | AmazonEC2FullAccess |
|-----+-----+-----+
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam attach-group-policy \
> --group-name MyGroupCli \
> --policy-arn arn:aws:iam::aws:policy/EXAMPLEPolicyName

An error occurred (NoSuchEntity) when calling the AttachGroupPolicy operation: Policy arn:aws:iam::aws:policy/EXAMPLEPolicyName does not exist or is not attachable.
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam attach-group-policy \
> --group-name MyGroupCli \
> --policy-arn arn:aws:iam::aws:policy/AdministratorAccess

@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam attach-group-policy --group-name MyGroupCli --policy-arn arn:aws:iam::aws:policy/AdministratorAccess
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam list-attached-group-policies --group-name MyGroupCli
{
  "AttachedPolicies": [
    {
      "PolicyName": "AdministratorAccess",
      "PolicyArn": "arn:aws:iam::aws:policy/AdministratorAccess"
    }
  ]
}
@23-22411-027-max @ /workspaces/lab9 (main) $
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam create-login-profile \
> --user-name MyUserCli \
> --password "MyStrongPass123!" \
> --password-reset-required

{
  "LoginProfile": {
    "UserName": "MyUserCli",
    "CreateDate": "2026-01-03T17:31:03+00:00",
    "PasswordResetRequired": true
  }
}

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam attach-group-policy --group-name MyGroupCli --policy-arn arn:aws:iam::aws:policy/IAMUserChangePassword
@23-22411-027-max @ /workspaces/lab9 (main) $ aws iam create-access-key --user-name MyUserCli
{
  "AccessKey": {
    "UserName": "MyUserCli",
    "AccessKeyId": "AKIATC2FAR6CNIIDRMUH4",
    "Status": "Active",
    "SecretAccessKey": "+sjmEvq14XLH27Xes4Mw2PUSXmNuU37kQJLRDuMP",
    "CreateDate": "2026-01-03T17:31:40+00:00"
  }
}

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ export AWS_ACCESS_KEY_ID="AKIA123EXAMPLE456"
@23-22411-027-max @ /workspaces/lab9 (main) $ export AWS_SECRET_ACCESS_KEY="abcd1234EXAMPLE5678"
@23-22411-027-max @ /workspaces/lab9 (main) $ printenv | grep AWS_
AWS_SECRET_ACCESS_KEY=abcd1234EXAMPLE5678
AWS_ACCESS_KEY_ID=AKIA123EXAMPLE456
@23-22411-027-max @ /workspaces/lab9 (main) $

```

```

@23-22411-027-max @ /workspaces/lab9 (main) $ export AWS_SECRET_ACCESS_KEY=/7o3jYrtC
@23-22411-027-max @ /workspaces/lab9 (main) $ printenv | grep AWS_

```

```

AWS_SECRET_ACCESS_KEY=7705JHfCkZW9yazab95dFnyPb9ZpId7Wvyeq17
AWS_SECRET_KEY_ID=AKIATC2FAR6CN26MZ40S
AWS_ACCESS_KEY_ID=AKIATC2FAR6CN26MZ40S
023-22411-027-max @ /workspaces/lab9 (main) $ aws iam get-user --user-name MyUserCli
{
  "User": {
    "Path": "/",
    "UserName": "MyUserCli",
    "UserId": "AIDATC2FAR6CNYYQK07YL",
    "Arn": "arn:aws:iam::212208750468:user/MyUserCli",
    "CreateDate": "2026-01-03T17:25:16+00:00"
  }
}
023-22411-027-max @ /workspaces/lab9 (main) $ _
Check-in

```

```

023-22411-027-max @ /workspaces/lab9 (main) $ exit
logout
Connection to localhost closed.

```

Task7

```

Last login: Sat Jan 3 10:12:37 2026 from ...
023-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --filters "Name=tag:Name,Values=MyServer" \
> --query "Reservations[*].Instances[*].PublicIpAddress" \
> --output text
3.29.67.1
023-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --filters "Name=instance-type,Values=t3.micro" \
> --query "Reservations[].Instances[].InstanceId" \
> --output table
-----
| DescribeInstances |
+-----+
| i-0a59bc2a26c91fd1d |
| i-00ca19afdc23dcc9b |
| i-010989d728ba10231 |
| i-0646a8468108f2f80 |
| i-043d0b83db16ae4d0 |
| i-055b1c8b46f225f3d |
| i-0194108d581e4f516 |
| i-08f077ddf88fc01a1 |
| i-0282facac818f3072 |
+-----+
023-22411-027-max @ /workspaces/lab9 (main) $

```

```

i-08f077ddf88fc01a1 |
i-0282facac818f3072 |
+-----+
023-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --filters "Name=subnet-id,Values=subnet-0600df5fa8ce60857" \
> --query "Reservations[*].Instances[*].InstanceId" \
> --output table
023-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances --filters "Name=subnet-id,Values=su
5fa8ce60857" --query "Reservations[*].Instances[*].InstanceId" --output table
023-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --filters "Name=vpc-id,Values=vpc-06be85cd81b657192" \
> --query "Reservations[*].Instances[*].InstanceId" \
> --output table
023-22411-027-max @ /workspaces/lab9 (main) $

```

Task 8

```
@23-22411-027-max [ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --filters "Name=tag:Name,Values=MyServer" \
> --query "Reservations[*].Instances[*].[InstanceId,PublicIpAddress,Tags[?Key=='Name'].Value][0]" \
> --output table
```

```
-----
| DescribeInstances |
+-----+-----+-----+
| i-08f077ddf88fc01a1 | None | MyServer |
| i-0282facac818f3072 | 3.29.67.1 | MyServer |
+-----+-----+-----+
```

```
@23-22411-027-max [ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --query "Reservations[*].Instances[*].[InstanceId,State.Name]" \
> --output table
```

```
-----
| DescribeInstances |
+-----+-----+
| i-0a59bc2a26c91fd1d | terminated |
| i-00ca19afdc23dcc9b | terminated |
| i-010989d728ba10231 | terminated |
| i-0646a8468108f2f80 | terminated |
| i-043d0b83db16ae4d0 | terminated |
| i-055b1c8b46f225f3d | terminated |
| i-0194108d581e4f516 | terminated |
| i-08f077ddf88fc01a1 | terminated |
| i-0282facac818f3072 | running |
+-----+-----+
```

```
@23-22411-027-max [ /workspaces/lab9 (main) $ aws ec2 describe-instances \
> --query "Reservations[*].Instances[*].[InstanceId,InstanceType,Placement.AvailabilityZone]" \
> --output table
```

```
-----
| DescribeInstances |
+-----+-----+-----+
| i-0a59bc2a26c91fd1d | t3.micro | me-central-1a |
| i-00ca19afdc23dcc9b | t3.micro | me-central-1a |
| i-010989d728ba10231 | t3.micro | me-central-1a |
| i-0646a8468108f2f80 | t3.micro | me-central-1a |
| i-043d0b83db16ae4d0 | t3.micro | me-central-1a |
| i-055b1c8b46f225f3d | t3.micro | me-central-1a |
| i-0194108d581e4f516 | t3.micro | me-central-1a |
| i-08f077ddf88fc01a1 | t3.micro | me-central-1a |
| i-0282facac818f3072 | t3.micro | me-central-1a |
+-----+-----+-----+
```

Cleanup

```
@23-22411-027-max [ /workspaces/lab9 (main) $ aws ec2 terminate-instances --instance-ids i-0282facac818f3072 --region me-central-1
```

```
{
  "TerminatingInstances": [
    {
      "InstanceId": "i-0282facac818f3072",
      "CurrentState": {
        "Code": 32,
        "Name": "shutting-down"
      },
      "PreviousState": {
        "Code": 16,
        "Name": "running"
      }
    }
  ]
}
```

```
3-22411-027-max @ /workspaces/lab9 (main) $  
3-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 describe-instances --query "Reservations[*].Instances[*].[InstanceId,State.Name]" --output table --region me-central-1
```

| DescribeInstances | |
|---------------------|---------------|
| i-0a59bc2a26c91fd1d | terminated |
| i-00ca19afdc23dcc9b | terminated |
| i-010989d728ba10231 | terminated |
| i-0646a8468108f2f80 | terminated |
| i-043d0b83db16ae4d0 | terminated |
| i-055b1c8b46f225f3d | terminated |
| i-0194108d581e4f516 | terminated |
| i-08f077ddf88fc01a1 | terminated |
| i-0282facac818f3072 | shutting-down |

```
3-22411-027-max @ /workspaces/lab9 (main) $  
3-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 delete-security-group --group-id sg-0227bfd7b8bdef976 --region me-central-1  
MyKey --region me-central-1
```

```
"Return": true,  
"GroupId": "sg-0227bfd7b8bdef976"
```

```
3-22411-027-max @ /workspaces/lab9 (main) $ aws ec2 delete-key-pair --key-name MyED25519Key --region me-central-1
```

```
"Return": true,  
"KeyPairId": "key-0c3ea0e48bed9bc31"
```

```
3-22411-027-max @ /workspaces/lab9 (main) $
```