

## Experiment 1B

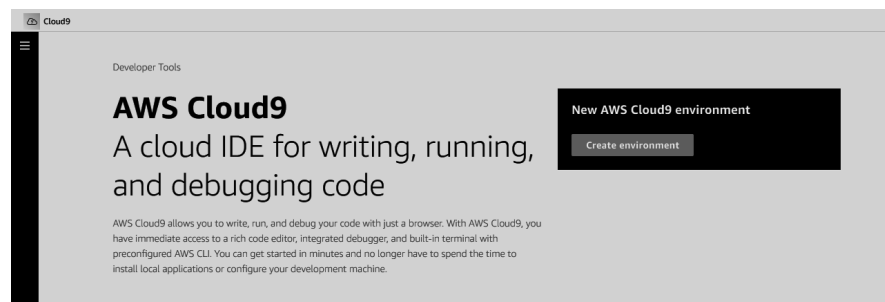
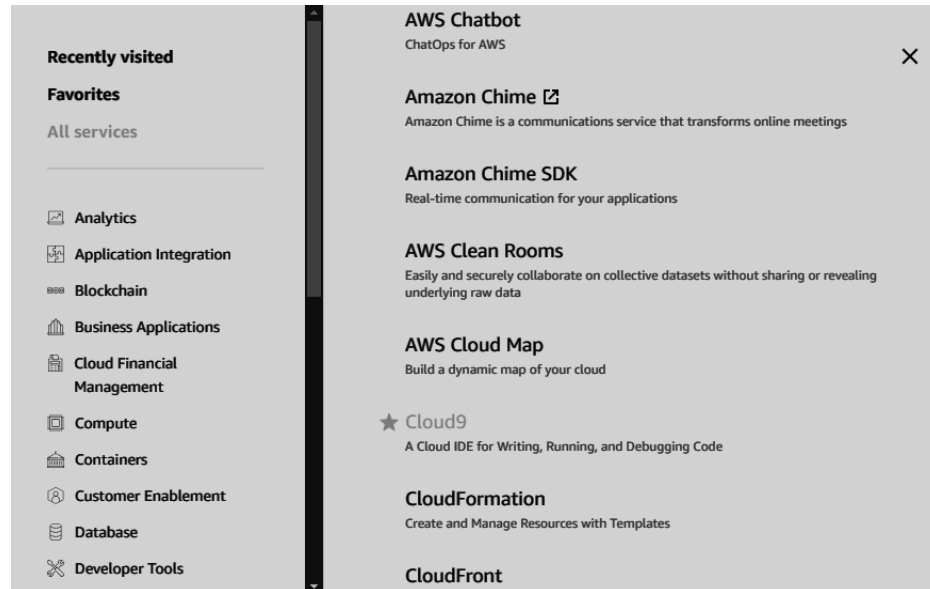
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Div/Roll no: **D15C/ 12**

**Aim:** To understand the benefits of Cloud Infrastructure and Setup AWS Cloud9 IDE, Launch AWS Cloud9 IDE and Perform Collaboration Demonstration.

### Steps:

1. Open your AWS account and search for Cloud9 service inside Developer tools. Create a new Cloud9 environment by filling in the required details. Make sure you use an EC2 instance to create your environment.



### Create environment [Info](#)

#### Details

Name

Limit of 60 characters, alphanumeric, and unique per user.

Description - *optional*

Limit 200 characters.

Environment type [Info](#)  
Determines what the Cloud9 IDE will run on.

☒ **New EC2 instance**  
Cloud9 creates an EC2 instance in your account. The configuration of your EC2 Instance cannot be changed by Cloud9 after creation.

☐ **Existing compute**  
You have an existing instance or server that you'd like to use.

## New EC2 instance

### Instance type [Info](#)

The memory and CPU of the EC2 instance that will be created for Cloud9 to run on.

☒ **t2.micro (1 GiB RAM + 1 vCPU)**  
Free-tier eligible. Ideal for educational users and exploration.

☐ **t3.small (2 GiB RAM + 2 vCPU)**  
Recommended for small web projects.

☐ **m5.large (8 GiB RAM + 2 vCPU)**  
Recommended for production and most general-purpose development.

☐ **Additional instance types**  
Explore additional instances to fit your need.

### Platform [Info](#)

This will be installed on your EC2 instance. We recommend Amazon Linux 2023.

Amazon Linux 2023 ▼

### Timeout

How long Cloud9 can be inactive (no user input) before auto-hibernating. This helps prevent unnecessary charges.

30 minutes ▼

## Network settings [Info](#)

### Connection

How your environment is accessed.

☐ **AWS Systems Manager (SSM)**  
Accesses environment via SSM without opening inbound ports (no ingress).

☒ **Secure Shell (SSH)**  
Accesses environment directly via SSH, opens inbound ports.

► **VPC settings** [Info](#)

Creating devenvironment. This can take several minutes. While you wait, see [Best practices for using AWS Cloud9](#)

For capabilities similar to AWS Cloud9, explore AWS Toolkits in your own IDE and AWS CloudShell in the AWS Management Console. [Learn more](#)

[AWS Cloud9](#) > Environments

### Environments (1)

Delete

View details

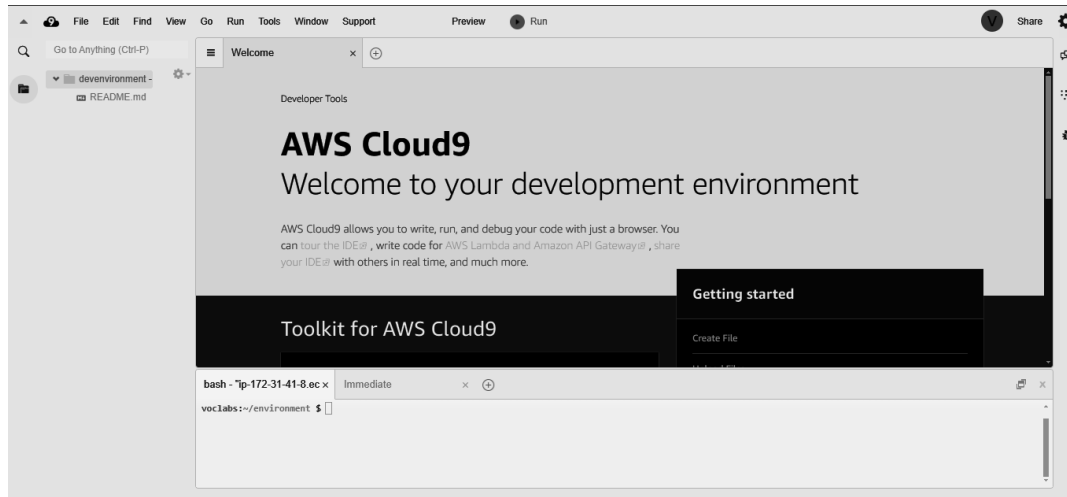
Open in Cloud9

Create environment

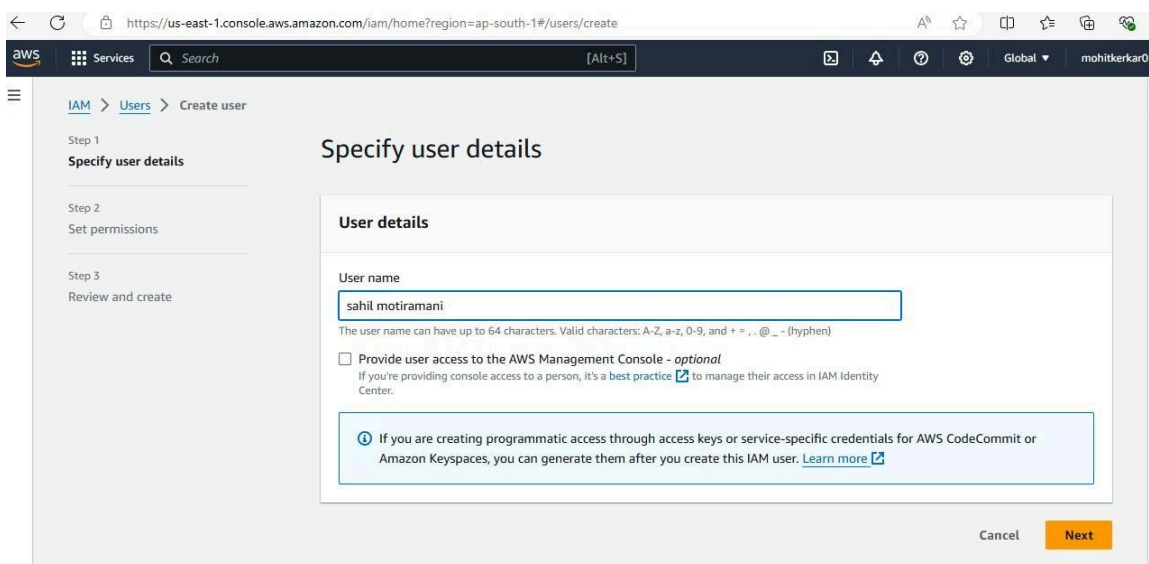
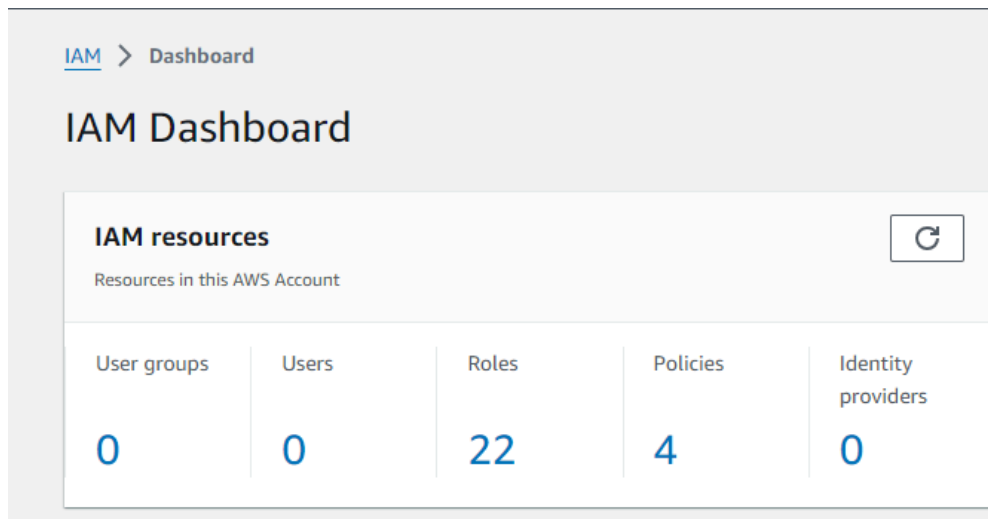
My environments ▼

	Name ▲	Cloud9 IDE	Environment type	Connection	Permission	Owner ARN
<input type="radio"/>	<a href="#">devenvironment</a>	<a href="#">Open</a>	EC2 instance	Secure Shell (SSH)	Owner	arn:aws:sts::249883209473:assumed-role/voclabs/user3400210=GAONKAR_DEV_PRA

2. We have successfully set up and launched our Cloud9 environment. Over here, we can build and develop programs as per our desire. We are also allowed to collaborate with multiple other users and access shared resources.



3. Moving on, we are supposed to create a new user. Give a suitable name to the user and decide the password for the same.



Center, you can centrally manage user access to their AWS accounts and cloud applications.

**I want to create an IAM user**  
We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

**Console password**

☐ Autogenerated password  
You can view the password after you create the user.

☒ Custom password  
Enter a custom password for the user.

☐ 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.

**Info** If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel Next

4. Similarly, create a new group and provide a suitable name for them. Include the IAM users in this group together for our convenience, that is, to provide similar kinds of permissions to the entire group rather than an individual user.

https://us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/users/create

aws Services Search [Alt+S]

MSBCLOUD9 user group created.

[Review and create](#)

Step 4  
Retrieve password

☒ 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.

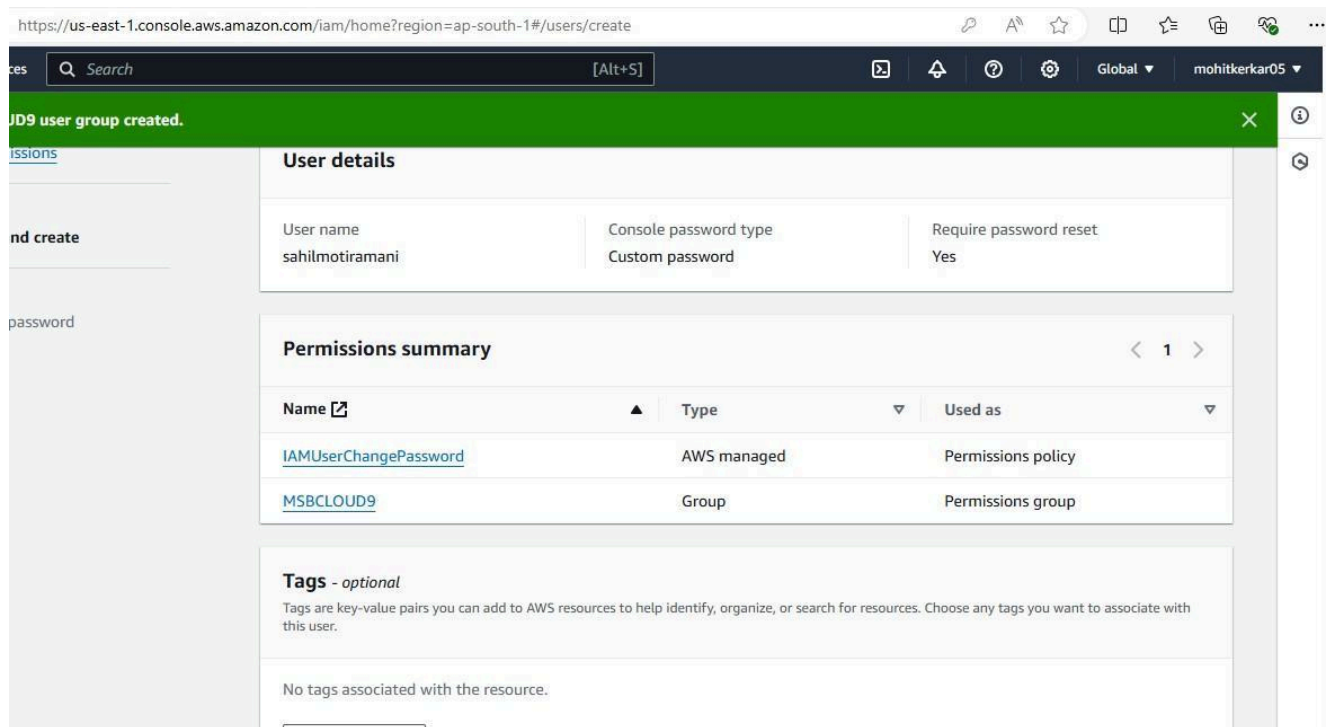
**User groups (1/1)** [Refresh](#) [Create group](#)

<input checked="" type="checkbox"/>	<a href="#">Group name</a>	<a href="#">Users</a>	<a href="#">Attached policies</a>	<a href="#">Created</a>
<input checked="" type="checkbox"/>	MSBCLOUD9	0	-	2024-07-29 (Now)

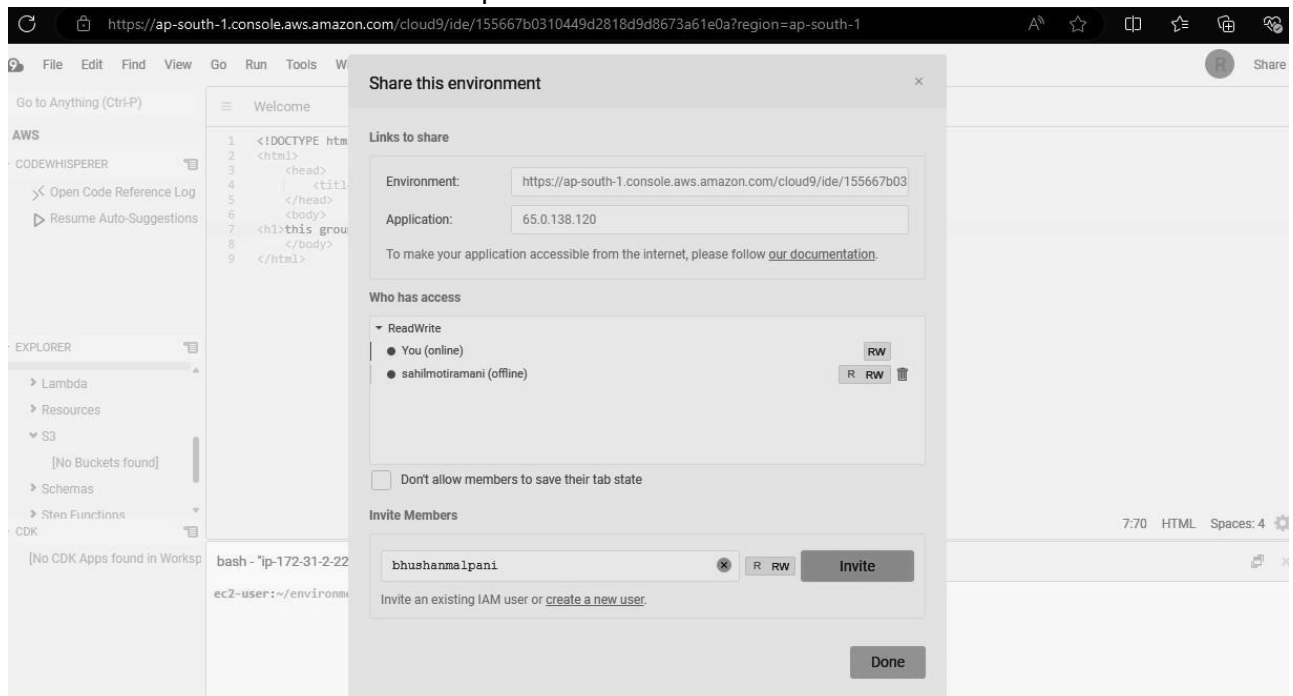
**Set permissions boundary - optional**

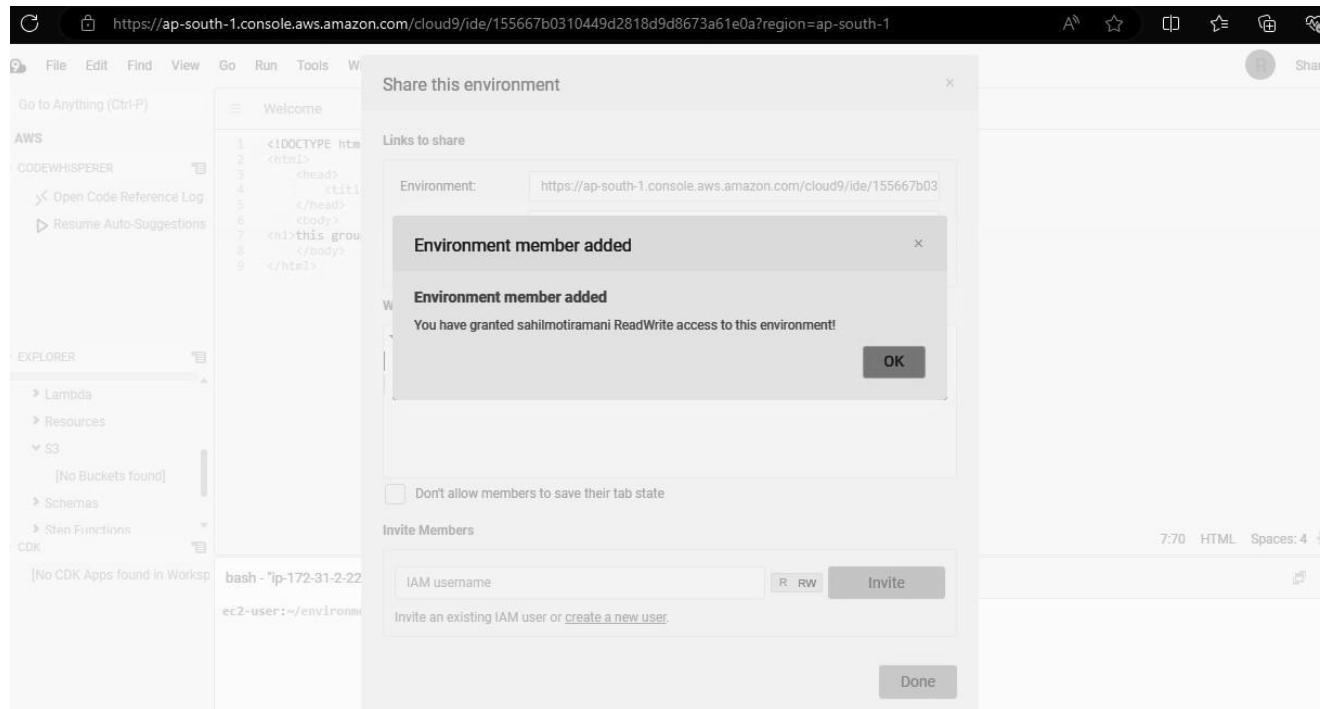
Cancel Previous Next

5. The user has successfully been created i.e. There is a custom-made username and a password for the IAM user.



6. Go back to the cloud9 environment. Click on the share this environment option so as to allow other collaborators to access you environment. Include your newly made IAM user in this environment and enable Read/Write permissions for it.





Further, we are supposed to login from another browser using the credentials of the IAM user, to access the shared cloud9 environment with us. These steps could not be completed because Cloud9 services have been disrupted and there is no access to the IAM user from the remote login.