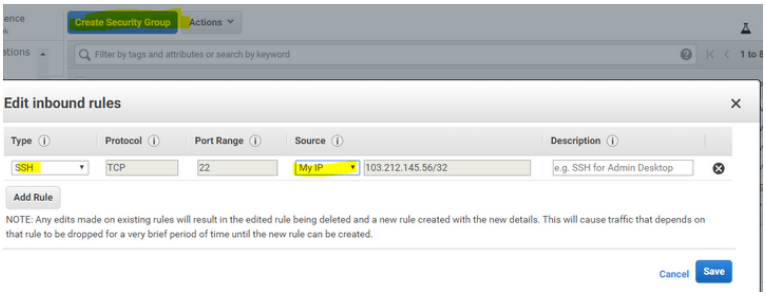
FAQ Document: Course 1, Module 3: Introduction to Cloud

Session -1 Why cloud ?

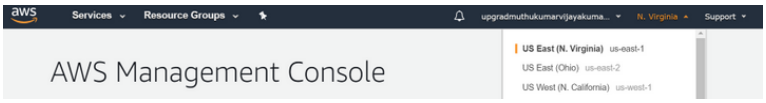
SN	Question	Answer
1.	Why are the following elements not a cost to any company under coalition solution: power, cooling and physical security?	For On-Premise setup, the organisation itself is involved in setting up and maintaining the data center. All of the equipment is owned by the organisation. So, they themselves pay for the resources like power, servers etc. For a colocation setup, the organisation provides the required computer servers and storage, whereas the third-party firms provide the power, cooling and physical security. They tie up with a third-party firm to set up and maintain its data centers. So, in an on-premise setup, the organisation themselves bears the cost for the power, whereas in a colocation setup, it is a part of the amount charged by the third-party firm.

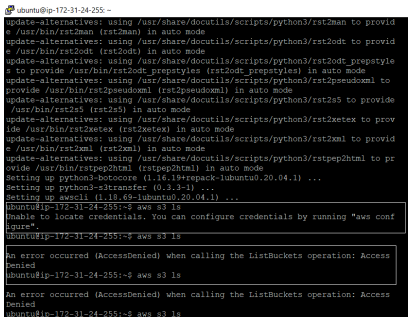
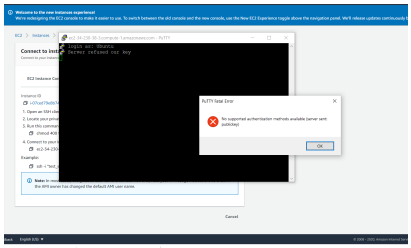
Session 3: Amazon Web Services

SN	Question	Answer
1.	How do I access the AWS services as part of this program	**Steps:** 1. Go to the NuvePro platform using the link provided below: cloudlabs.nuvepro.com/company/Upgrad/home 2. Click on the Login button at the top right corner. 3. From the available options, click on the “Forgot User ID” option. You must provide the email ID registered with upGrad to receive the login ID. 4. Now, move back to the NuvePro dashboard and select “Forgot password” under the Login option. Provide the user id and the password will be mailed to your registered email ID. 5. Use the obtained User ID and Password to login to the NuvePro platform. 6. After you have logged in, click on “View Lab” and press “Jump to Console”. You will be redirected to your AWS account after clicking on “Open Console”. You can now access the resources mentioned on the screen.

2.	a. I am facing trouble in accessing the created EC2 instance through PuTTY. What could be the possible reason here? b. How do I provide access for an EC2 instance to any machine? c. I am unable to connect to my EC2 instance. How do I overcome the "Connection Timed Out" error?	One of the key reasons for getting a Connection error is that the IP address of your local machine isn't provided access to the instance under the security groups. To do so, follow the following steps: 1. Go to the EC2 instance and select the instance that you want to access. 2. From the available options, go to the Security section. There, you will find the link to the security group associated with the instance. Click on it to move to the security group page. 3. You are now expected to click on "Edit inbound rules" to add the IP address of your local machine. To access the instance, you should add a new rule for the SSH port (22). In case you want to access more ports, you should add another rule for the same. 4. Under the Source section, you should select "My IP". You must not not open the ports to all the IP addresses as it poses a security threat. After you close the Edit box for Inbound Rules, the source "My IP" will automatically change to "Custom". This will be fixed and won't change for your next session. Therefore, you are expected to repeat these steps every time as the local IP gets reset after some duration. 
3.	a. Do I need to install the AWS CLI package in the local machine separately? b. Unable to install the AWSCLI package using putty.	AWS CLI is not pre-installed in the system. You will get an error if the command is run directly. It can be installed with: #First update the package repository cache with the following command: sudo apt-get update #Now, install **AWS CLI** with the following command: sudo apt-get install awscli You can check for successful installation using the following

		command: aws --version
5.	I am unable to create an RDS DB instance using the video demonstration provided on the platform. What is the issue here? **Error message** Your request to create DB instance demodbinstance-1 didn't work. User: arn:aws:sts::141547995048:federated-user/upgradsanjayans is not authorized to perform: rds:CreateDBInstance on resource: arn:aws:rds:us-east-2:141547995048:db:demodbinstance-1 with an explicit deny	You are expected to use the documentation provided to create an RDS instance as the demonstration covers the production-grade instance which is not permitted under the course due to cost constraints. You are expected to create a free-tier RDS DB instance with the configuration of db.t2.micro with 20 GB as mentioned in the documentation on the platform.
6.	Important Note Regarding AWS Access Credentials	This is not a question but just an information to share. In Ubuntu 18.04, AWS Secret Access Key won't work if it has characters like + or % present in it. In such a case, you might need to regenerate your AWS access credentials. These credentials then need to be updated on the Nuvepro account as well, otherwise you won't be able to open your AWS console via Nuvepro. To update the details in Nuvepro, you can go to Actions -> Update Access Keys Please avoid changing your AWS access credentials unless absolutely necessary. The relevant issue link: https://github.com/aws/aws-cli/issues/602#issuecomment-474931762
7.	What is the difference between stopping and terminating an	Stopping an instance is similar to turning your laptop/machine off. It will stop the EC2 machine, but all your work is stored in

	instance?	the disk. When you restart the machine, it resumes from the previous state. On the other hand, terminating an instance means completely freeing the resources occupied under your account. It is similar to destroying the machine, but in the cloud, it is a virtual machine. The image template which was used to build it is also destroyed along with the data, unless you choose to back that up. Once the instance is terminated, it cannot be restored to its previous state. You have to create the machine again using an image template (like Linux ,Windows) and select the hardware resources all over again. You can read more about the life cycle of an EC2 instance here: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html
9.	I am unable to create AMI/Instance, getting the error "You are not authorized to perform this operation." in AWS while selecting AMI to create instances.	You need to ensure that the selected region is “North Virginia” (Check the top right corner of AWS page).  Also, if you are working with an IAM user, you must provide the required permissions to the user.
10.	Unable to install the AWS CLI package using putty. Unable to install aws cli package using putty. Security Group--MyIP Region- us-east-1c command used- sudo apt install awscli Getting Error as "AWSCLI" has no installation candidate.	You can use the documentation provided to install the AWS CLI package. The document shows how to use the MSI installer to install AWS CLI on your machine.
13.	An error occurred (AccessDenied) when calling the ListBuckets operation: Access Denied	The error occurs as a role hasn’t been attached to the instance with required permissions. Please create the role for S3FullAccess and attach to the instance for accessing the

	I am getting denied access when I tried to access s3 from EC2 instance.  	bucket. Points to note : 1. AWS EC2 and Bucket Created - should be in same Region 2. If EC2 instance and Bucket are created without any roles/policy/bucket policy - You will be asked for credentials. 3. Once you have attached the IAM Role (with S3FullAccess), the command will show the Bucket List 4. If User/Resource/instance has a Deny policy, the request to list the buckets will be rejected
14.	Getting below error while accessing the EC2 instance using putty.  	Please ensure that you use the same PEM/PPK file to access the EC2 instance. Also, check if the inbound rules in the security groups have been updated or not.