Problem Statement:
You work for XYZ Corporation. Your corporation wants to launch a new web-based application using AWS Virtual Machines. Configure the resources accordingly for the tasks.
Tasks To Be Performed:
1. Create an instance in the US-East-1 (N. Virginia) region with an Ubuntu OS and install Nginx for making them web servers.
2. Change the default website with a page displaying the message: "Hello World"

Problem Statement:
You work for XYZ Corporation. Your corporation wants to launch a new web-based application using AWS Virtual Machines. Configure the resources accordingly with appropriate storage for the tasks.
Tasks To Be Performed:
1. Launch a Linux EC2 instance.
2. Create an EBS volume with 20 GB of storage and attach it to the created EC2 instance.
3. Resize the attached volume and make sure it reflects in the connected instance.

Tasks To Be Performed:
1. Create an EFS and connect it to 3 different EC2 instances. Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

Problem Statement:
You work for XYZ Corporation and the current requirement in the organization is for faster file sharing, which can also help in data replication from on-premises infrastructure.
Tasks To Be Performed:
1. Create an FSx file system for a Windows file server:
a. Make sure you have AWS Managed Active Directory with a valid domain name
b. Connect it to your Windows EC2 server
2. Create an FSx file system for Lustre and attach it to an Amazon Linux 2 instance.

Case study

Problem Statement:
You work for XYZ Corporation. Your corporation is working on an application and they require secured web servers on Linux to launch the application.
Tasks To Be Performed:
1. Create an instance in the US-East-1 (N. Virginia) region with Linux OS and manage the requirement of web servers of your company using AMI.
2. Replicate the instance in the US-West-2 (Oregon) region.
3. Build two EBS volumes and attach them to the instance in the US-East-1 (N. Virginia) region.
4. Delete one volume after detaching it and extend the size of the other volume.
5. Take backup of this EBS volume.