**DevOps Case Studies:**

Jenkins:

Create a CI/CD Pipeline to perform continuous Delivery and Continuous Deployment with help of Jenkins. Follow the below steps:

1. Clone the GitHub Project : <https://github.com/Msocial123/maven-web-application.git>
2. Integrate the GitHub with Jenkins
3. Integrate Java with Jenkins
4. Integrate Nexus with Jenkins
5. Integrate Tomcat with Jenkins
6. While creating pipeline Check the triggers tab select POLL SCM.

**Docker Case Study:**

Case Study 1 :

Pull the Jenkins, mysql , nginx docker images from hub.docker.com and deploy the docker images into container with specific port numbers.

Case Study 2:

Clone the GitHub project and build docker images with help of the Dockerfile : <https://github.com/Msocial123/roboshop-project.git>

Roboshop is a sample popular Microservices application. It is owned by Instana which is acquired by IBM. They use this project in their product developments like instana APM tool and other products. It has all the services used for an ideal ecommerce company.

This project contains below microservices:

Cart Module

Catalogue Module

MongoDB

Mysql

Payment

Ratings

Shipping

User

These are below mentioned Microservices are there in project build docker images push into hub.docker.com store in repository.

**Kubernetes Case Study:**

Case Study1 : Create kubernetes cluster with help of the Minikube on Mac.

Case Study 2 : Build a docker images for the below mentioned project : <https://github.com/Msocial123/microservices-demo.git> there are 11 Microservices are there build docker images with help of Dockerfile and deploy 11 Micro services using declarative yaml files in cluster.

**AWS Case Study :**

**Task1 :**

Create a Linux Ec2 Instance and deploy a web application In Linux Machine access with public IP Address.

**Task2 :**

Create a Load Balancer attach two Webservers to the load balancer see how load balancer distributing Traffic between two servers.

**Task3:**

Create a Auto Scaling using the below steps :

Step1 : Create a LoadBalncer

Step2 : Create a template for auto scaling and define the custom configuration

Step3: Create a auto scaling group mention the minimum and maximum number of instances

Step4: Create a SNS Topic

Step5 : Create a Cloud Watch Alarms to set the conditions

Step6 : Create a Dynamic Scaling Policy