**Task 1 : Kubernetes Deployment**

* Create a Deployment in Kubernetes for nginx with 3 replicas, and name it nginx-deployment.
* Use nginx:latest image
* Each pod should have a label app: nginx.
* The Deployment should ensure that only one Pod is down at a time during the update.
* The Deployment should be exposed internally within the cluster at port 80.
* Create a Service that exposes the Deployment to the outside world, mapping the service's port 8080 to the deployment's port 80.

**Evaluation:**

* The user should demonstrate understanding of the kubectl command, as well as how to create and manage Deployments and Services in Kubernetes.
* The user should be able to write a Kubernetes yaml configuration file correctly, and understand key concepts such as labels, replicas, and service types.

**Task 2 : Kubernetes rolling updates to deployment**

**Task:**

* Update the **nginx-deployment** created earlier to use the **nginx:1.16** image instead of the **nginx:latest**.
* Monitor the rollout status of this update and ensure it's successful.
* Once the rollout is successful, confirm that the new image is being used by checking the image used in the running Pods.
* If something goes wrong, roll back the update to the previous stable version.

**Evaluation:**

* The user should demonstrate understanding of the **kubectl** command, how to perform a rolling update on a Deployment, how to monitor the status of the rollout, and how to roll back if needed.
* The user should understand how Kubernetes handles updates and how to ensure zero downtime during Deployment updates.