Lab 1

Q1:

```
Editor   Tab 1   +                                                          60 min
controlplane $ helm repo add bitnami https://charts.bitnami.com/bitnami
"bitnami" has been added to your repositories
controlplane $ helm repo list
NAME    URL
bitnami https://charts.bitnami.com/bitnami
controlplane $
```

Q2:

```
controlplane $  helm install amaze-surf  bitnami/apache
NAME: amaze-surf
LAST DEPLOYED: Sun Feb 12 11:12:31 2023
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
CHART NAME: apache
CHART VERSION: 9.2.15
APP VERSION: 2.4.55

** Please be patient while the chart is being deployed **

1. Get the Apache URL by running:

** Please ensure an external IP is associated to the amaze-surf-apache service before proceeding **
** Watch the status using: kubectl get svc --namespace default -w amaze-surf-apache **

  export SERVICE_IP=$(kubectl get svc --namespace default amaze-surf-apache --template "{{ range (index .stat
us.loadBalancer.ingress 0) }}{{ . }}{{ end }}")
  echo URL            : http://$SERVICE_IP/


WARNING: You did not provide a custom web application. Apache will be deployed with a default page. Check the
 README section "Deploying your custom web application" in https://github.com/bitnami/charts/blob/main/bitnam
i/apache/README.md#deploying-a-custom-web-application.
controlplane $ helm list
NAME            NAMESPACE       REVISION      UPDATED                              STATUS       CHART
                APP VERSION
amaze-surf      default         1             2023-02-12 11:12:31.86321062 +0000 UTC  deployed     apach
e-9.2.15        2.4.55
controlplane $
```

Q3:

```
controlplane $ helm uninstall amaze-surf
release "amaze-surf" uninstalled
controlplane $ helm list
NAME      NAMESPACE        REVISION        UPDATED STATUS   CHART   APP VERSION
controlplane $ █
```

Q4:
- install nginx:

```
controlplane $ helm install bitnami/nginx --version 12.0.4
Error: must either provide a name or specify --generate-name
controlplane $  helm install my-release-nginx  bitnami/nginx --version 12.0.4
NAME: my-release-nginx
LAST DEPLOYED: Sun Feb 12 11:31:02 2023
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
CHART NAME: nginx
CHART VERSION: 12.0.4
APP VERSION: 1.22.0

** Please be patient while the chart is being deployed **
NGINX can be accessed through the following DNS name from within your cluster:

    my-release-nginx.default.svc.cluster.local (port 80)

To access NGINX from outside the cluster, follow the steps below:

1. Get the NGINX URL by running these commands:

  NOTE: It may take a few minutes for the LoadBalancer IP to be available.
        Watch the status with: 'kubectl get svc --namespace default -w my-release-nginx'

    export SERVICE_PORT=$(kubectl get --namespace default -o jsonpath="{.spec.ports[0].port}" services my-release-nginx)
    export SERVICE_IP=$(kubectl get svc --namespace default my-release-nginx -o jsonpath='{.status.loadBalancer.ingress[0].ip}')
    echo "http://${SERVICE_IP}:${SERVICE_PORT}"
controlplane $ helm list
NAME                NAMESPACE        REVISION        UPDATED                                STATUS         CHART           APP VERSIO
N
my-release-nginx    default          1               2023-02-12 11:31:02.736321215 +0000 UTC deployed     nginx-12.0.4    1.22.0

controlplane $ █
```

- update nginx to 1.23.1:

```
controlplane $ helm upgrade  my-release-nginx bitnami/nginx --version  13.2.9
Release "my-release-nginx" has been upgraded. Happy Helming!
NAME: my-release-nginx
LAST DEPLOYED: Sun Feb 12 11:43:32 2023
NAMESPACE: default
STATUS: deployed
REVISION: 2
TEST SUITE: None
NOTES:
CHART NAME: nginx
CHART VERSION: 13.2.9
APP VERSION: 1.23.1

** Please be patient while the chart is being deployed **
NGINX can be accessed through the following DNS name from within your cluster:

    my-release-nginx.default.svc.cluster.local (port 80)

To access NGINX from outside the cluster, follow the steps below:

1. Get the NGINX URL by running these commands:

  NOTE: It may take a few minutes for the LoadBalancer IP to be available.
        Watch the status with: 'kubectl get svc --namespace default -w my-release-nginx'

    export SERVICE_PORT=$(kubectl get --namespace default -o jsonpath="{.spec.ports[0].port}" services my-release-nginx)
    export SERVICE_IP=$(kubectl get svc --namespace default my-release-nginx -o jsonpath='{.status.loadBalancer.ingress[0].ip}')
    echo "http://${SERVICE_IP}:${SERVICE_PORT}"
controlplane $ █
```

- roll back:

```
controlplane $ helm list
NAME                    NAMESPACE       REVISION        UPDATED                                         STATUS          CHART           APP VERSIO
N
my-release-nginx        default         2               2023-02-12 11:43:32.178822746 +0000 UTC deployed        nginx-13.2.9    1.23.1

controlplane $ helm history
Error: "helm history" requires 1 argument

Usage:  helm history RELEASE_NAME [flags]
controlplane $ helm history my-release-nginx
REVISION        UPDATED                 STATUS          CHART           APP VERSION     DESCRIPTION
1               Sun Feb 12 11:31:02 2023        superseded      nginx-12.0.4    1.22.0          Install complete
2               Sun Feb 12 11:43:32 2023        deployed        nginx-13.2.9    1.23.1          Upgrade complete
controlplane $ helm rollback my-release-nginx 1
Rollback was a success! Happy Helming!
controlplane $ 
```