CKA LAB PART 2 - APPLICATION LIFECYCLE MANAGEMENT

**Lab 1 - Perform rolling updates on a deployment**

* Apply the following yaml file : https://raw.githubusercontent.com/DavidVTUK/CKAExampleYaml/master/nginx-svc-and-deployment.yaml
* Update this deployment to leverage the nginx container version 1.7.11. Ensure that

--record=true has been used.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

**Lab 2 - Change the update strategy for a deployment**

Using the YAML file from Lab 1, amend it so that:

• Strategy is “Rolling Update”

• Max Surge is “1”

• Max Unavailable is “1”

A screenshot of a computer

Description automatically generated

**Lab 3 - Perform a rollback on a deployment**

* Rollback the changes that were implemented from Lab 1.

**Lab 4 - Scale a deployment**

* Scale the deployment from the first lab exercise to leverage 6 pods.

A screenshot of a computer program

Description automatically generated

A screenshot of a computer

Description automatically generated

**Lab 5 - Create and run a Job**

Create and execute a job that:

* Leverages the “perl” image
* Calculates pi to 2000 places

Note:

Use the command: ["perl", "-Mbignum=bpi", "-wle", "print bpi(2000)"] in the pod manifest

The command above will output to stdout on the container, therefore inspect the output

A screenshot of a computer

Description automatically generated

**Lab 6 - Create and use a Config Map**

Create two texts files in /tmp/

* db\_h.txt with the contents “database\_host”
* db\_p.txt with the contents “database\_port”

Create a configmap called “db - connection” from the above two files.

Create a nginxpod which leverages these values as environment variables “db\_h” and “db\_p”

A screenshot of a computer

Description automatically generated

**Lab 7 - Create and use Secrets**

Create a secret called “db-credentials” directly from the CLI with the following key:value pair:

* db-username : dbuser
* db-password : dbpassword

Create a pod to leverage these as environment variables.

A screenshot of a computer

Description automatically generated

**Lab 8 - Configure a pod with specific environment variables**

Create a pod that has two environment variables configured:

* Variable1 = somevalue
* Variable2 = someothervalue

A screenshot of a computer

Description automatically generated