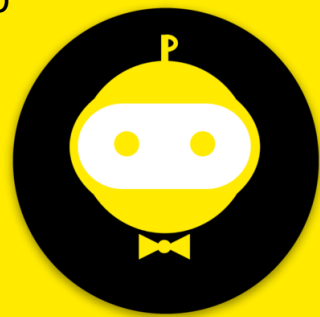kubectl commands to help

TROUBLESHOOT KUBERNETES

AB

kubectl get pods -A

This command will list all pods in all namespaces.

If you see any not in a running state you have an issue.

If they are in a running state and your application is still not working, you have an issue.

kubectl describe pod <pod name>

This command will give you more information about the pod and list events.

If your pod is running in a name space add **-n <namespace name>** to the end.

If they are in a running state and your application is still not working, you have an issue.

kubectl logs -f <pod name>

This command will stream the logs (stdout) to the console window for you to review.

If your pod is running in a name space add **-n <namespace name>** to the end.

Fix the issue in the logs and then check to see if the application is fixed
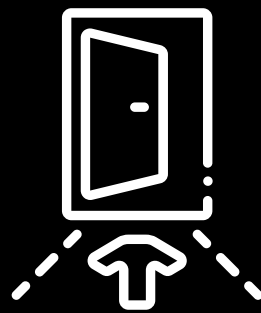
Pod status

ImagePullBackoff: Check the image registry is accessible or image name and version specified is correct.

RunContainerError: Check ConfigMap or Secrets are not missing.

ContainerCreating: Check capacity on cluster. Check if persistent volume is available.
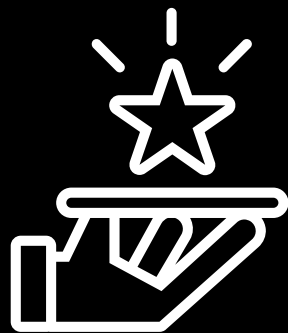
SERVICES AND INGRESS

kubectl describe service <service name>

Check to see there are endpoints.

Does the selector match the right pod label?

Do the pods have an internal IP address assigned?

Does the target port on the service match the container port on the pods?

kubectl describe ingress <ingress name>

Can you see a list of backends?

Does the service name match the service?

Does the service port match the service?

If you still have issues check your ingress controllers logs.

USEFUL LINKS

Kubernetes Cheat Sheat:
https://kubernetes.io/docs/reference/kubectl/cheatsheet

Kubernetes Documentation:
https://kubernetes.io/docs/home

Cloud Family AKS Zero to Hero Video Series:
https://youtube.com/playlist?list=PLDShAwQSfax4CKD9Y-q55FF119Ymnh_xk

The Kubernetes Bundle:
https://azure.microsoft.com/en-gb/resources/kubernetes-ebook-collection

Kubernetes basics with Brendan Burns, Co-founder of Kubernetes:
https://youtube.com/playlist?list=PLLasX02E8BPCrIhFrc_ZiINhbRkYMKdPT