

Streamlined Kubernetes Troubleshooting



bespinian

Cloud Native Citizens







Common Monsters in the Wild

ImagePullBackOff

ErrImagePull

RunContainerError

Pending

CrashLoopBackOff

KillContainerError

CreateContainerConfigError



Startup Failures



ImagePullBackOff

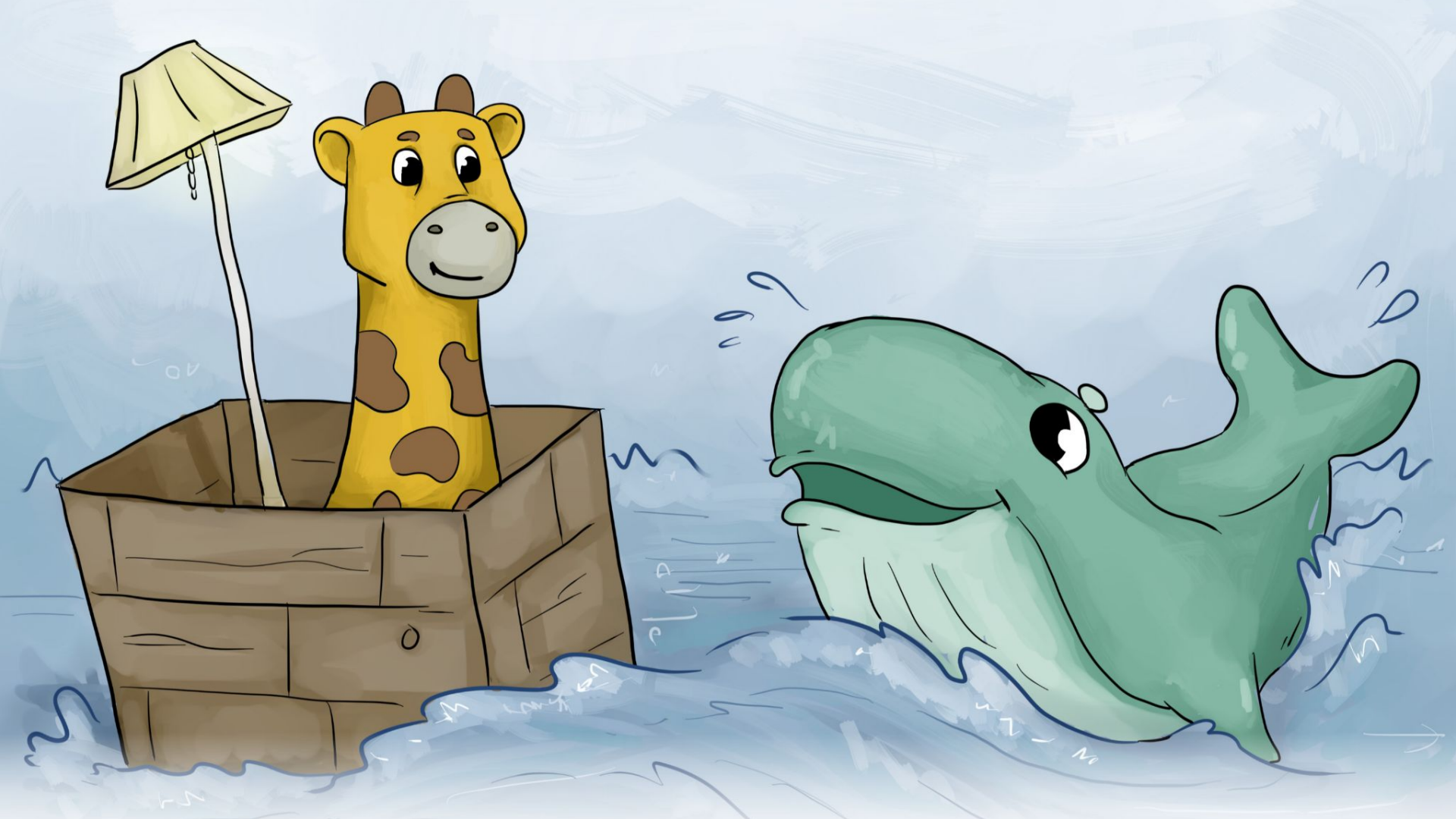
ErrImagePull

RunContainerError

CreateContainerConfigError

ContainerCreating

Pending



Oh, the Fun...

```
$ kubectl get deployments
```

```
$ kubectl get pods
```

```
$ kubectl describe pod my-deployment-123
```



OWLINA

This smart owl always
has everything under
control

Troubleshooting Applications

This doc contains a set of resources for fixing issues with containerized applications. It covers things like common issues with Kubernetes resources (like Pods, Services, or StatefulSets), advice on making sense of container termination messages, and ways to debug running containers.

[Debug Pods](#)

[Debug Services](#)

[Debug a StatefulSet](#)

[Determine the Reason for Pod Failure](#)

[Debug Init Containers](#)

[Debug Running Pods](#)

[Get a Shell to a Running Container](#)



kubectl Cheat Sheet

This page contains a list of commonly used `kubectl` commands and flags.



Note: These instructions are for Kubernetes v1.27. To check the version, use the `kubectl version` command.

Kubectl autocomplete

BASH

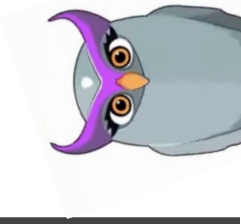
```
source <(kubectl completion bash) # set up autocomplete in bash into the current shell, bash-completion package should be installed first.
echo "source <(kubectl completion bash)" >> ~/.bashrc # add autocomplete permanently to your bash shell.
```

You can also use a shorthand alias for `kubectl` that also works with completion:

```
alias k=kubectl
complete -o default -F __start_kubectl k
```

ZSH

Get an Overview

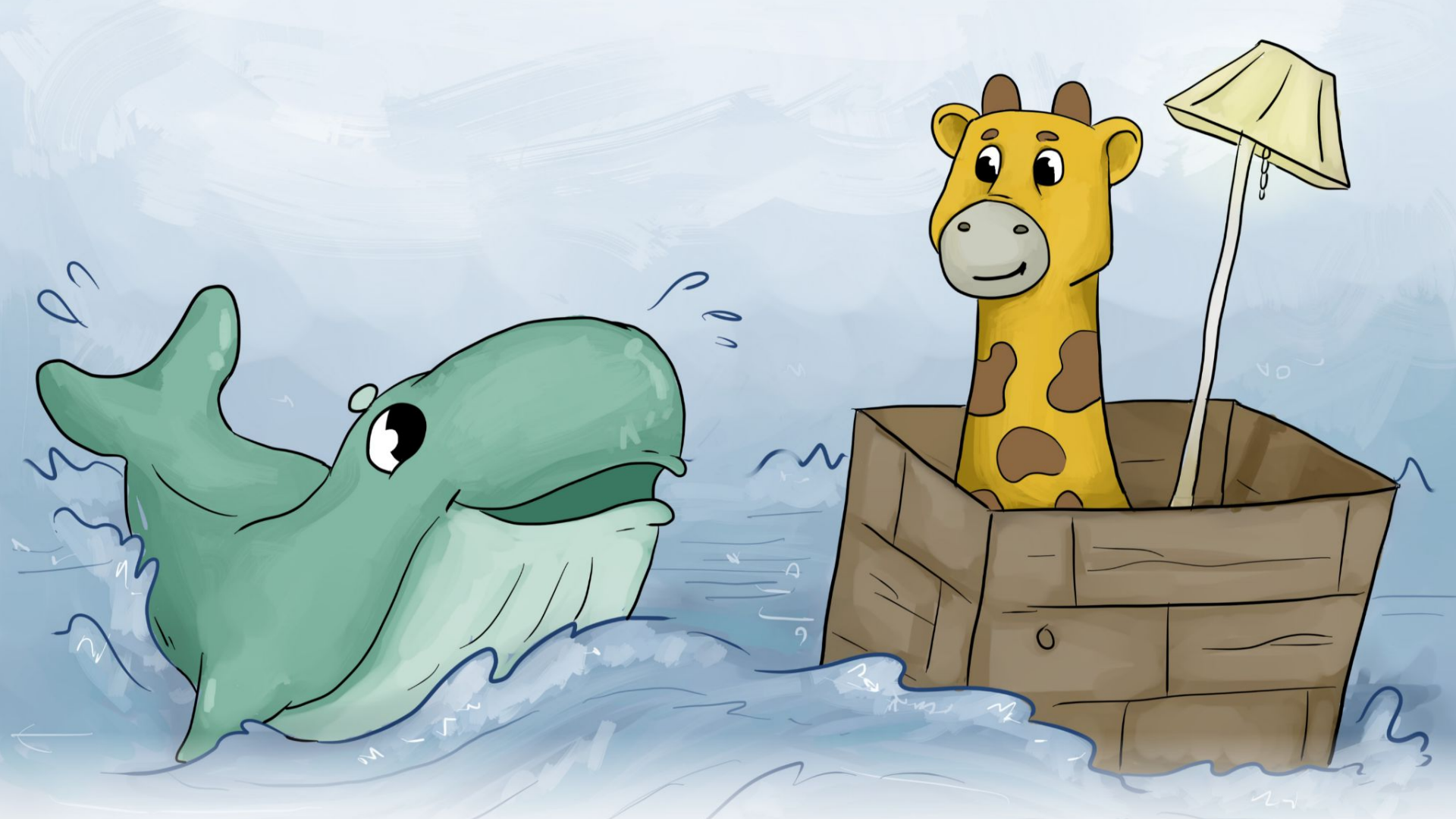


```
$ kubectl get events  
--field-selector type=Warning
```



Runtime Failures

CrashLoopBackOff



Oh, the Joy...

```
$ kubectl get pods
```

```
$ kubectl logs pod my-deployment-123
```

github.com/stern/stern

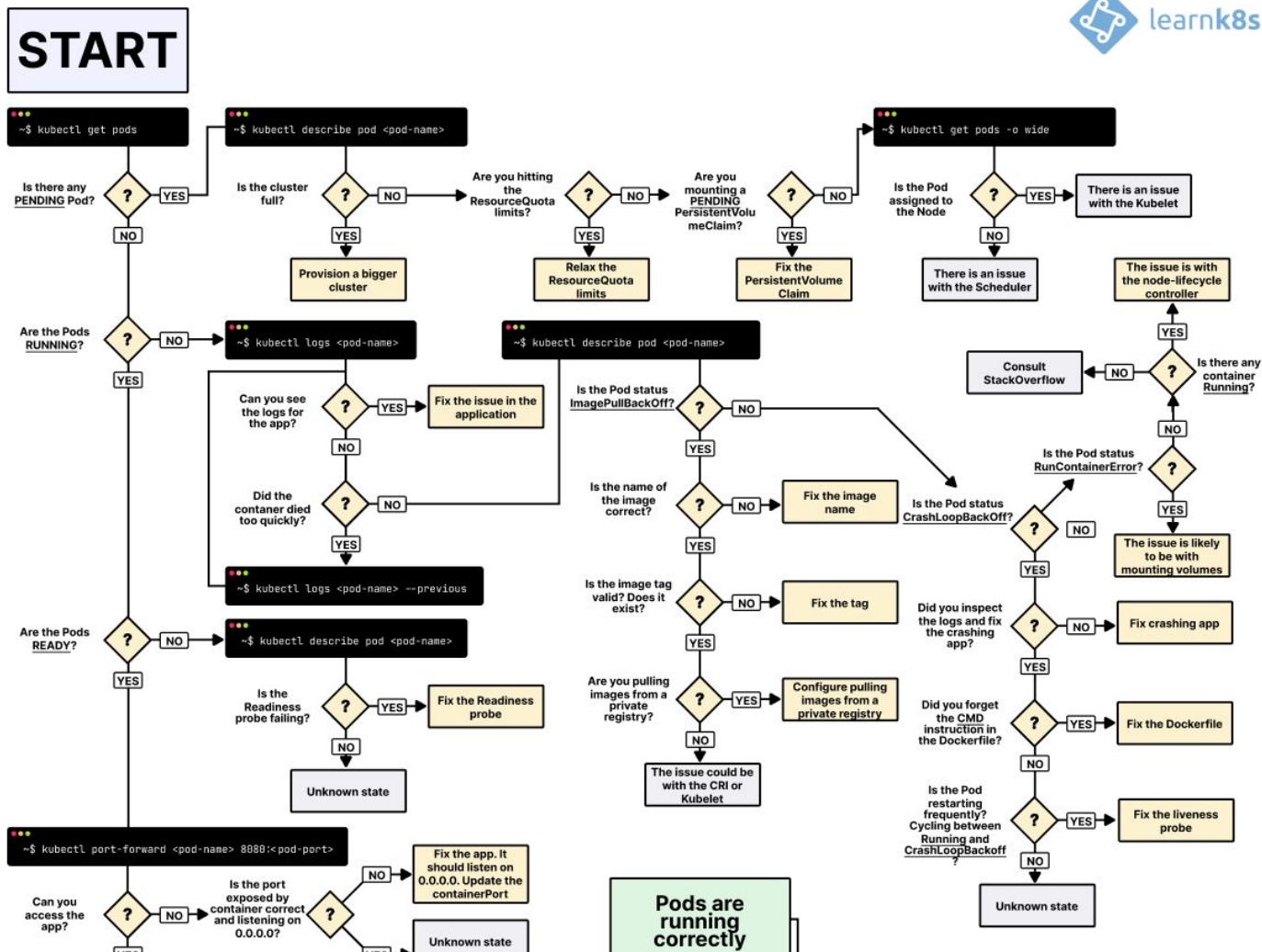


github.com/k8sgpt-ai/k8sgpt



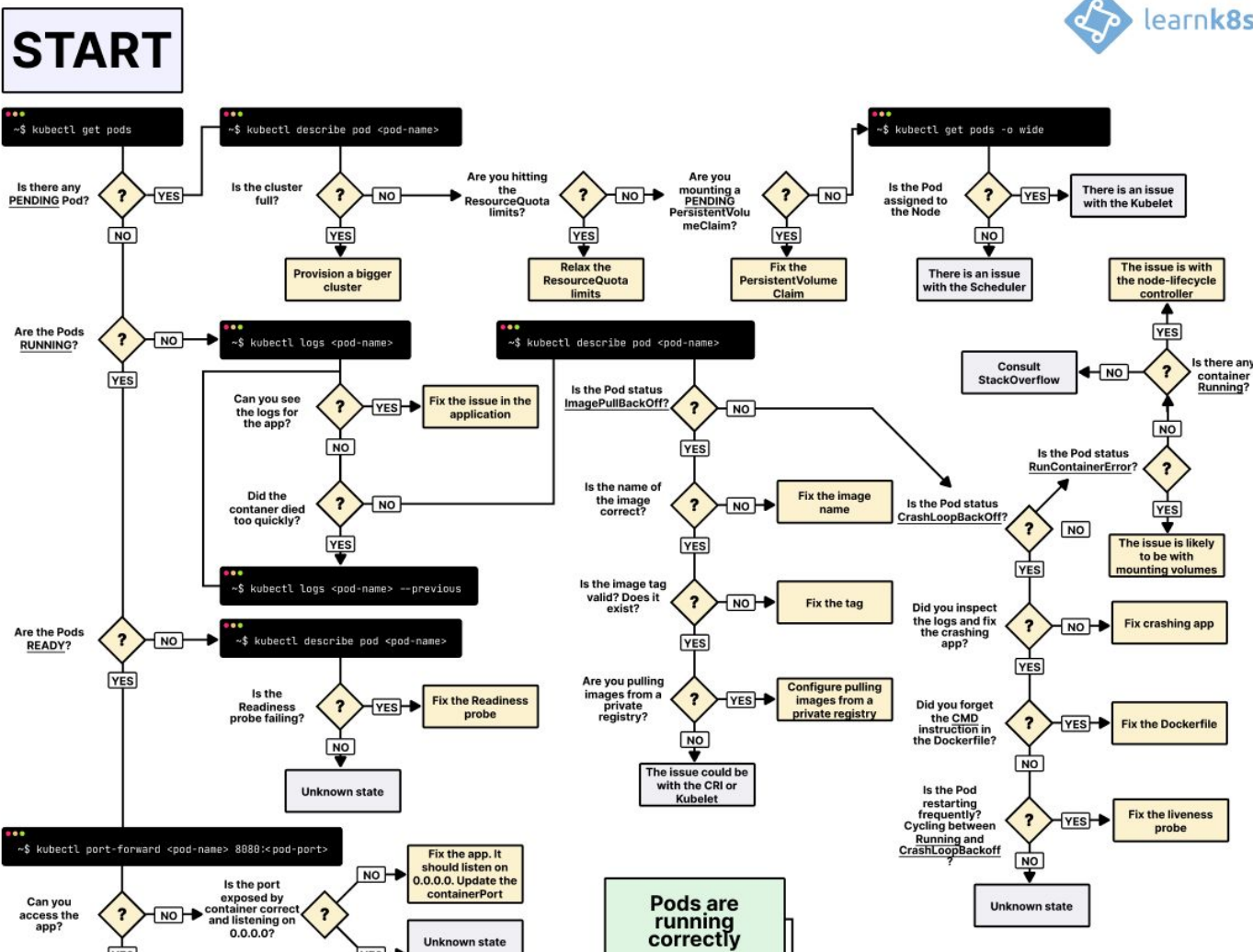
```
    "details": "The error message means that Kubernetes is having difficulty downloading the necessary image from the docker hub. A possible solution would be to check the image name and make sure it is correct. It could also be a network connectivity issue, so checking the network settings could also help resolve the problem.",
    "parentObject": "Deployment/deathstar"
  }
  {
    "kind": "Pod",
    "name": "default/deathstar-5b559d699b-smvrn",
    "error": [
      "Back-off pulling image \"docker.io/cilium/starwaraaes\""
    ],
    "details": "The error message means that Kubernetes is having difficulty downloading the necessary image from the docker hub. A possible solution would be to check the image name and make sure it is correct. It could also be a network connectivity issue, so checking the network settings could also help resolve the problem.",
    "parentObject": "Deployment/deathstar"
  }
  {
    "kind": "Pod",
    "name": "observability/observability-grafana-58df856d5c-m8mks",
    "error": [
      "back-off 5m0s restarting failed container=grafana pod=observability-grafana-58df856d5c-m8mks_observability(95c3c870-ca62-4532-bf21-17fd1408dc0f)"
    ],
    "details": "The container named Grafana has failed to start and is being continuously restarted every 5 minutes.\n\nSolution: Check the logs of the container to understand why it is failing to start. Fix any issues with the container's configuration or dependencies to resolve the error.",
    "parentObject": "Deployment/observability-grafana"
  }
}
```





github.com/bespinian/livelint







Thanks!

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