

Chaos Engineering Report

09 December 2020

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Summary

This report aggregates 1 experiments spanning over the following subjects:

kubernetes

Experiment

What is the impact of deleting a pod without a grace period?

If the pod is terminated, we should spin up a new pod.

Summary

Status	completed
Tagged	kubernetes
Executed From	DESKTOP-72KKKO4
Platform	Linux-4.19.128-microsoft-standard-x86_64-with-glibc2.29
Started	Wed, 09 Dec 2020 13:55:03 GMT
Completed	Wed, 09 Dec 2020 13:55:13 GMT
Duration	10 seconds

Definition

The experiment was made of 2 actions, to vary conditions in your system, and 0 probes, to collect objective data from your system during the experiment.

Steady State Hypothesis

The steady state hypothesis this experiment tried was “**Verifying services are healthy and pod accepts api request**”.

Before Run

The steady state was verified

Probe	Tolerance	Verified
we-can-request-list-of-books	200	True

After Run

The steady state was verified

Probe	Tolerance	Verified
we-can-request-list-of-books	200	True

Method

The experiment method defines the sequence of activities that help gathering

evidence towards, or against, the hypothesis.

The following activities were conducted as part of the experimental's method:

Type	Name
action	delete-api-pod
action	we-can-request-list-of-books

Result

The experiment was conducted on Wed, 09 Dec 2020 13:55:03 GMT and lasted roughly 10 seconds.

Action - delete-api-pod

Status	succeeded
Background	False
Started	Wed, 09 Dec 2020 13:55:03 GMT
Ended	Wed, 09 Dec 2020 13:55:03 GMT
Duration	0 seconds
Paused After	10s

The action provider that was executed:

Type	python
Module	chaosk8s.pod.actions
Function	delete_pods
Arguments	{'name': 'book', 'label_selector': 'app.kubernetes.io/name=load-book-api', 'ns': 'default'}

Action - we-can-request-list-of-books

Status	succeeded
Background	False
Started	Wed, 09 Dec 2020 13:55:13 GMT
Ended	Wed, 09 Dec 2020 13:55:13 GMT
Duration	0 seconds

The action provider that was executed:

Type	http
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URL	http://192.168.1.12:30571/all
Method	GET
Timeout	3
Arguments	N/A

Appendix

Action - delete-api-pod

The *action* returned the following result:

None

Action - we-can-request-list-of-books

The *action* returned the following result:

```
{'body': [],
  'headers': {'Connection': 'keep-alive',
              'Content-Type': 'application/json',
              'Date': 'Wed, 09 Dec 2020 13:55:13 GMT',
              'Keep-Alive': 'timeout=60',
              'Transfer-Encoding': 'chunked'},
  'status': 200}
```