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2021

Session Notes:

<Session 7>
Topic: **Performance of Camunda Platform in K8S**
Moderator: Mauricio Salatino

Interesting Notes:

Supported databases are listed here:
https://docs.camunda.org/manual/latest/introduction/supported-environments/

High-Level Takeaways:

1) Camunda Platform can run in K8s!
2) You need to code your applications to gracefully shut down to allow them to be rescheduled
3)

Questions that were asked:
Q: Rolling Update with Camunda… does it work out-of-the-box (given a shared database) ? specifically: rolling update of the process-application (SpringBoot), without necessarily updating Camunda, with no downtime of starting/executing processes
A: if configured properly Rolling update usually does it when the application is idle. speaking from experience, rolling update works fine, but its best to only do that with minor updates since you need to update the database in bigger update version increments. If you code your application properly does a graceful exit, (finishing running instances/threads), then it should be fine.

Q: Would be interested to learn about scaling considerations, for e.g. are there any custom scaling rules needed to prevent kubernetes shutting down a pod in the middle of executing a workflow task.
A: Kubernetes passes a signal called a SIGTERM to the pod. an application can catch the signal and gracefully finish and exit.

Q: How does the Camunda Web Application manage session state in a cluster?

Q: Will It support mySQL?

A: Yes! https://docs.camunda.org/manual/latest/introduction/supported-environments/#databases
https://docs.camunda.org/manual/latest/user-guide/process-engine/database/mssql-configuration/

Q: How does the Camunda Web Application manage session state in a cluster?
A:

Q: Does the webapp even have server-side session state except for authentication?
A:

Q: We are running embedded engine in a custom application on k8s. Faced a situation where due to high number of async jobs (15,00,000) the pod failed due to high cpu throttling and memory usage. How to auto scale pods based on the number of async jobs ??
A: you can run KEDA (pod autoscaler), based on cpu/mem usage

Q: Has anyone used spring-session-data-redis for session replication?
A: I would really offload this to nginx ingress for inbound traffic

Q: Can we create Customise Custom web app ui for Spring-boot starter app ?
A:

Q: SpringBoot embedded bpmn is Camunda's "Greenfield" recommendation, is there an accompanying Github repo for the k8s deployment (rolling upgrade, deployment examples, etc.)?
A:

Q: Deployment vs StatefulSet for Camunda deployment. Any problems with Deployment?
A:

Q: Does Camunda supports AWS Aurora DB natively?
A: As long as you can write to Aurora with the default DB libraries (for PostgresQL), then yes

Q: Can we create Customise Camunda web app ui for Spring-boot starter app ?
A: Webapp customization: https://github.com/camunda-consulting/code/tree/master/snippets/camunda-webapp-customized

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Example on customizing Camunda's Docker images: https://github.com/camunda-consulting/docker-camunda-platform/tree/master/camunda-tomcat-hardened

Q: can vault/kubernates secrets be accessed from a process instance at runtime. If the reference is given while modelling to a sensitive value can camunda dynmically take that value during runtime?
A:

Q: camunda-helm is the "bpmn-engine as separate Service" scenario, correct ?
(have to interact via Camunda's Rest API)
A: Yes.. Camunda as a service approach

Q: What about database scale?
A:

Q: what about sensitive tokens?
A: When you do secrets mounted, it will be attached as an environment variable by default. if you want to do it dynamically at runtime. use keyvault (on azure) or another one if needed. No CISO team will allow that. it’s a huge security risk on the cluster

Q: How to Load balance the Camunda web app without a sticky session on F5? Can we store sessions in the database?
A: