Daration. 120 mins

Objective

The objective of this workshop is to use Kubernetes to

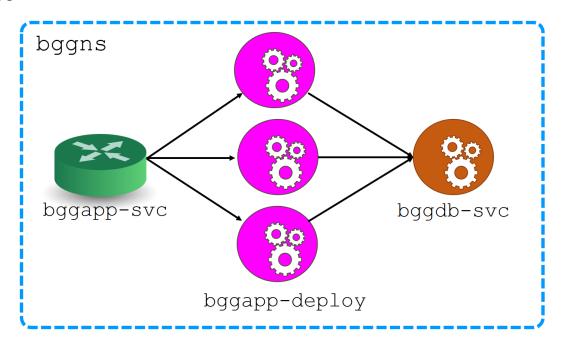
- a. Create deployments for 2 different types of images
- b. Create a service that is accessible from outside of the cluster
- c. Perform rolling upgrades the application to the latest version

Setup

- a. Create a DockerHub account at https://hub.docker.com if you do not have one
- b. Clone the repository https://github.com/stackupiss/cfdsa.git.

Workshop

Create and deploy the following setup in a Kubernetes namespace called bggns.



- a. Create a deployment for the database with the following settings:
 - i. Image name is stackupiss/bgg-database:v1
 - ii. 1 Pod instance

- b. Create a deployment for bggapp-deploy with the following settings:
 - i. Image to use is stackupiss/bgg-backend:v1
 - ii. 3 initial Pod instances
 - iii. Add the following environment variables to the container
 - BGG DB USER set the value to root
 - BGG_DB_HOST set the value to the FQDN for the database service mydb-svc
 - BGG_DB_PASSWORD create and inject a secret containing the database root password. The default root password is changeit
 - iv. The readiness and liveness checks are as follows
 - Readiness GET /healthz
 - Liveness GET /healthz
- c. Create the following 2 services
 - i. bggdb-svc which exposes the database deployment. This service is not accessible from outside of the cluster
 - ii. bggapp-svc exposes bggapp-deploy deployment so that it is accessible from outside of the cluster
- d. Upgrade bggapp-deploy's image to stackupiss/bgg-backend:v2.

Hard requirement: the application (bggapp-deploy) must be available throughout the upgrade.

Submission

Create a Git repo for this course if you have not done so. Clone the Git repo. This repo will be used for all the assignment for this course. This should the same repos as you used for previous workshops.

Email the repo's URL to your instructor. Email will be provided.

Create a directory called workshop02 inside your repo. Placed all the file for this workshop inside workshop 02 directory.

Submit the following files in workshop02 directory:

- a. Kubernetes deployment and service files
- b. Any other files