Distributed Systems Lab 3

Discussion:

Summarize the problem, the solution, and the requirements for the pattern given in part 1. Which of these requirements can be achieved by the procedures shown in parts 2 and 3?

Problem:

It is usually a business requirement to monitor web applications and back-end services so that they know they are running properly. It becomes rather difficult to monitor services running in the cloud. If you don’t have full control of the hosting environment and the services rely on other services provided by platform vendors and others

Solution:

The solution to this issue is simple, implement health monitoring that can send requests to and endpoint on the application, and the application can perform the necessary checks, and return an indication of the status

Combines two factors

* Checks performed by the application or service
* Analysis of the results by the tool or framework that performs the health verification check

Design:

Kubernetes provides persistent volumes. Why such a feature can be important? How to implement it?

It is a piece of storage in the cluster that has been provisioned by an admin. It’s a request for storage by a user, similar to a pod. PVs can be provisioned in two ways, statically or dynamically.

Static: Cluster admin creates a number of PVs, and they carry the details of the real storage that is only available for user by cluster users.

Dynamic: Cluster may try to dynamically provision a volume for a PVC, when none of the static pvs match a user’s pv claim.

Provide an example in which persistent volumes are needed. Configure a YAML file to implement the example. Run it and test the creation of persistent volume and its ability to provide the required functionality within the example.