Mysql cluster using docker-compose

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Ques: 1) What is docker-compose?

It is technology that is used for running multiple containers at a same time because using dockerfile we can create one container at one time in one directory.

Que: 2) What is the difference between Dockerfile and docker-compose.yml?

With Dockerfile you can create only one container at one time in a single directory but using docker-compose we can create multiple container using one docker-compose.yml file and these Dockerfiles can be located anywhere in different directories and build them.

Que: 3) Explain each and every line present in your docker-compose.yml

i) version: "2"
To get the latest version of docker-compose functionality for our docker-compose.yaml file

ii) services:
to add the containers and its names like our dockerfiles are located in different or same directories so ti list out the multiple services that we are going to create using docker-compose file.

iii) mysql-node-1: Name of mysql-cluster 1 that we are going create multiple clusters to define the name of first cluster
iv) container_name: To name the first service cluster that we are going to create.

v) restart: always: restart the container when it stops.

vi) build: . To give the build path for DockerFile to run the service.

vii) ports: ["3301:3306"] : Mapping of the mysql port on docker container with host machine and start the container on port 3306.

Similary name the next service and give its build path and mapping port number.

Que: 4) Github repository Link of your assignment repo.

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Que: 5) How clustering is important and how it solves our problems?

Clustering is important to keep the multiple service together and hold them to perform particular tasks individually that when grouped together creates an functionality.

- It solves our problems by running multiple clusters on multiple machines and keep mapping in between them

- Providing multiple services of the same type so to backup when any of the service is not available like if any of the mysql service stops working we have alternative service like clusters of the same service to carry on the stopped cluster.

I’ve wrote according to what I understood. :)