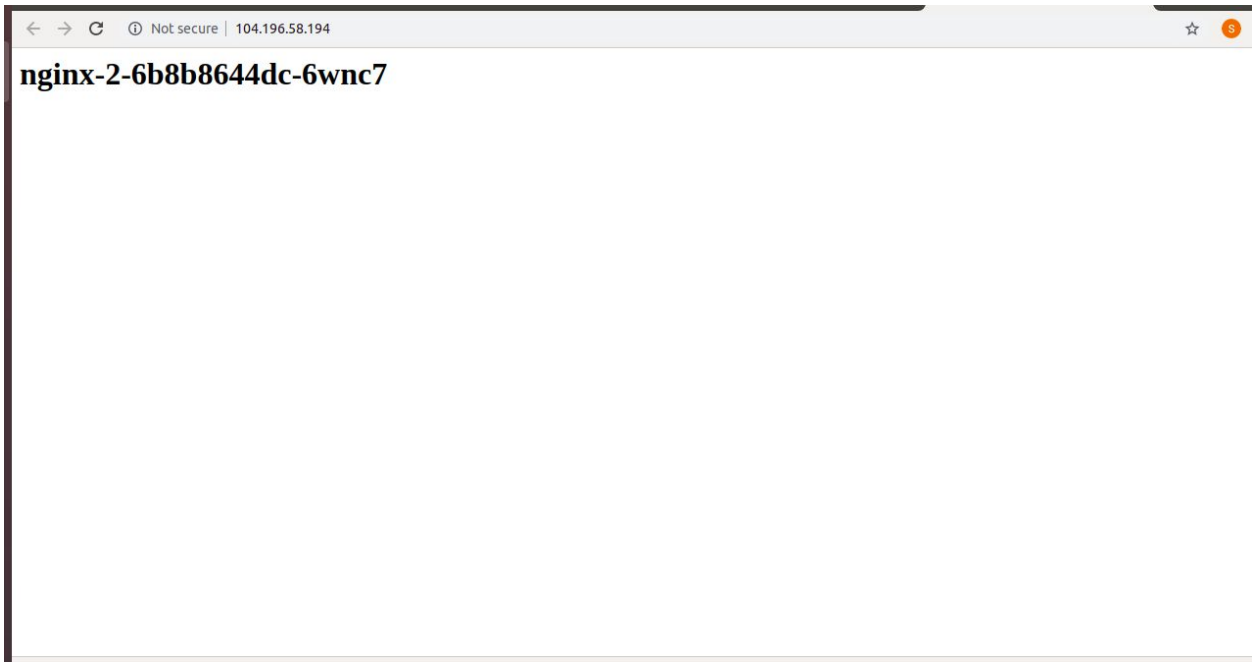
Kubernetes

Write Script to creating Microservice using Nginx webserver to show default webpage. Create Kubernetes configuration files. Expose this microservice on ClusterIP, NodePort and as a LoadBalancer. Create a custom webpage to show which pod the page is loading from (it should automatically change with every refresh).

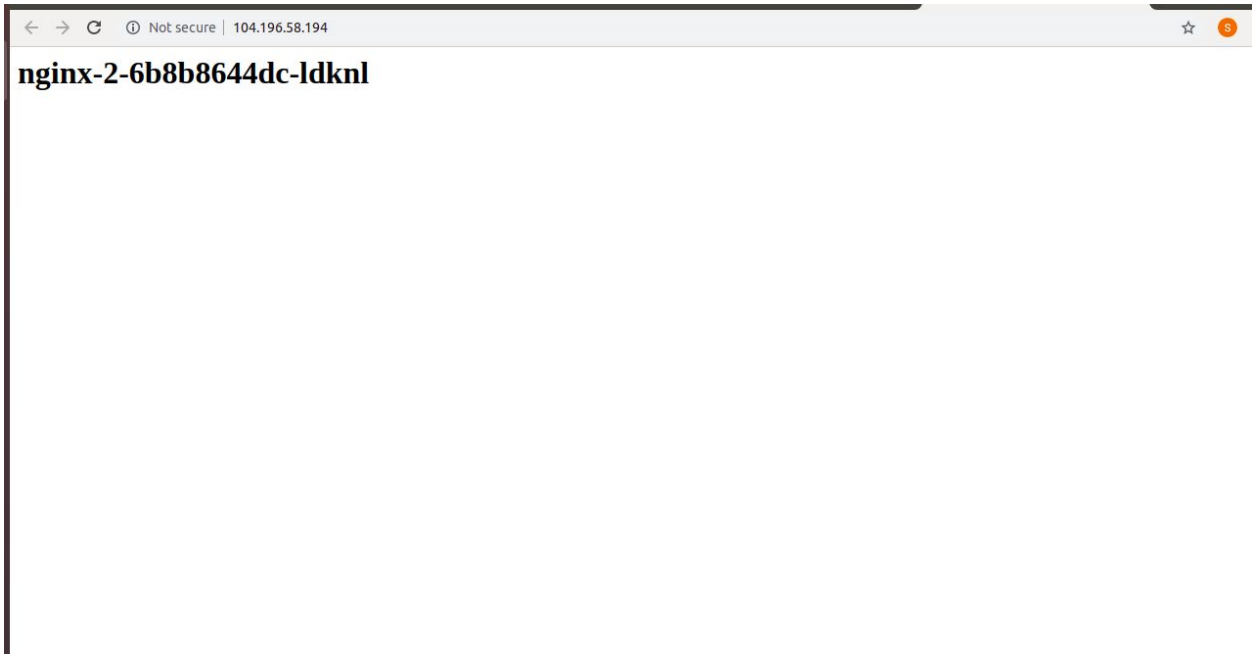
STEPS:

1. Create an image of nginx web server as shown in question 1 solution.
2. Tag the image and upload it to GCR as shown in the same solution
3. Goto kubernetes -> create cluster
4. Add name to cluster, select zone, no. of nodes=2
5. Deploy the cluster
6. In edit container, add created container image from gcr.
7. Deploy the cluster
8. Now under workloads tab, you will find a workload created for the same, click on it
9. In the deployment details, you can find the Actions option, click on it and select the Action option
10. Go to Expose -> specify target port as 80 -> service type cluster ip -> click on expose.
11. Again go to Expose -> specify target port as 80 -> service type nodeport -> click on expose.
12. Again go to Expose -> specify target port as 80 -> service type load balancer -> click on expose.
13. If we navigate to the external ip of the load balancer, we can see the code reflected as written in the Dockerfile

From POD1


Not secure | 104.196.58.194
nginx-2-6b8b8644dc-6wnc7

From POD2


Not secure | 104.196.58.194
nginx-2-6b8b8644dc-ldknl