CS571
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(19526)

7.3 Setting environment variables for a container

Making the interval in your fortune image configurable through an- n environment variable

Step-1: Fortune script with interval configurable through environment variable.
Step-2: Docker file for the updated fortune image

```
mansishah@macbookpro fortune-env % vim fortuneloop.sh
mansishah@macbookpro fortune-env % cat fortuneloop.sh
#!/bin/bash
trap "exit" SIGINT
echo Configured to generate new fortune every $INTERVAL seconds
mkdir -p /var/htdocs
while :
do
  echo $(date) Writing fortune to /var/htdocs/index.html
  /usr/games/fortune > /var/htdocs/index.html
  sleep $INTERVAL
done
mansishah@macbookpro fortune-env % vim Dockerfile
mansishah@macbookpro fortune-env % cat Dockerfile
FROM ubuntu:latest

RUN apt-get update ; apt-get -y install fortune
ADD fortuneloop.sh /bin/fortuneloop.sh

ENTRYPOINT ["/bin/fortuneloop.sh"]
mansishah@macbookpro fortune-env % chmod 777 fortuneloop.sh
mansishah@macbookpro fortune-env % chmod 777 Dockerfile
mansishah@macbookpro fortune-env % ls -al
total 16
drwxr-xr-x  4 mansishah  staff  128 Mar 20 20:05 .
drwxr-xr-x  4 mansishah  staff  128 Mar 20 20:04 ..
-rwxrwxrwx  1 mansishah  staff  143 Mar 20 20:03 Dockerfile
-rwxrwxrwx  1 mansishah  staff  253 Mar 20 20:02 fortuneloop.sh
mansishah@macbookpro fortune-env % []
```

Step-3: Build Docker image and push the image to DockerHub.

```
mansishah@macbookpro fortune-env % docker build -t mansi2210/shahm888:fortune_env .
Sending build context to Docker daemon  3.072kB
Step 1/4 : FROM ubuntu:latest
 ---> 72300a873c2c
Step 2/4 : RUN apt-get update ; apt-get -y install fortune
 ---> Using cache
 ---> 155e2402551e
Step 3/4 : ADD fortuneloop.sh /bin/fortuneloop.sh
 ---> 9f3b5adf05b6
Step 4/4 : ENTRYPOINT ["/bin/fortuneloop.sh"]
 ---> Running in efb95fc363bd
Removing intermediate container efb95fc363bd
 ---> ebd7d2884485
Successfully built ebd7d2884485
Successfully tagged mansi2210/shahm888:fortune_env
mansishah@macbookpro fortune-env % docker push mansi2210/shahm888:fortune_env
The push refers to repository [docker.io/mansi2210/shahm888]
5f8341820cb7: Pushed
56cf16917be6: Layer already exists
1852b2300972: Layer already exists
03c9b9f537a4: Layer already exists
8c98131d2d1d: Layer already exists
cc4590d6a718: Layer already exists
fortune_env: digest: sha256:be8b99d69f2358bb500d6ebb6d7a6822d51986ba20d36cf100e3451e9b088911 size: 1571
mansishah@macbookpro fortune-env %
```

Step-4: Create pod from fortune-pod-env.yaml

```
mansishah@macbookpro fortune-env % vim fortune-pod-env.yaml
mansishah@macbookpro fortune-env % cat fortune-pod-env.yaml
apiVersion: v1
kind: Pod
metadata:
  name: fortune-env
spec:
  containers:
  - image: mansi2210/shahm888:fortune_env
    env:
    - name: INTERVAL
      value: "30"
    name: html-generator
    volumeMounts:
    - name: html
      mountPath: /var/htdocs
  - image: nginx:alpine
    name: web-server
    volumeMounts:
    - name: html
      mountPath: /usr/share/nginx/html
      readOnly: true
    ports:
    - containerPort: 80
      protocol: TCP
  volumes:
  - name: html
    emptyDir: {}
mansishah@macbookpro fortune-env % kubectl create -f fortune-pod-env.yaml
pod/fortune-env created
mansishah@macbookpro fortune-env % kubectl get pod -o wide
NAME          READY   STATUS    RESTARTS   AGE   IP          NODE   NOMINATED NODE   READINESS GATES
fortune-env   2/2     Running   0          16s   172.17.0.4  m01    <none>           <none>
mansishah@macbookpro fortune-env %
```

Step-5: Logs to prove environment variable usage in Pod's container

```
mansishah@macbookpro fortune-env % kubectl logs fortune-env -c html-generator
Configured to generate new fortune every 30 seconds
Sat Mar 21 03:13:00 UTC 2020 Writing fortune to /var/htdocs/index.html
Sat Mar 21 03:13:30 UTC 2020 Writing fortune to /var/htdocs/index.html
Sat Mar 21 03:14:00 UTC 2020 Writing fortune to /var/htdocs/index.html
Sat Mar 21 03:14:30 UTC 2020 Writing fortune to /var/htdocs/index.html
mansishah@macbookpro fortune-env % 
```