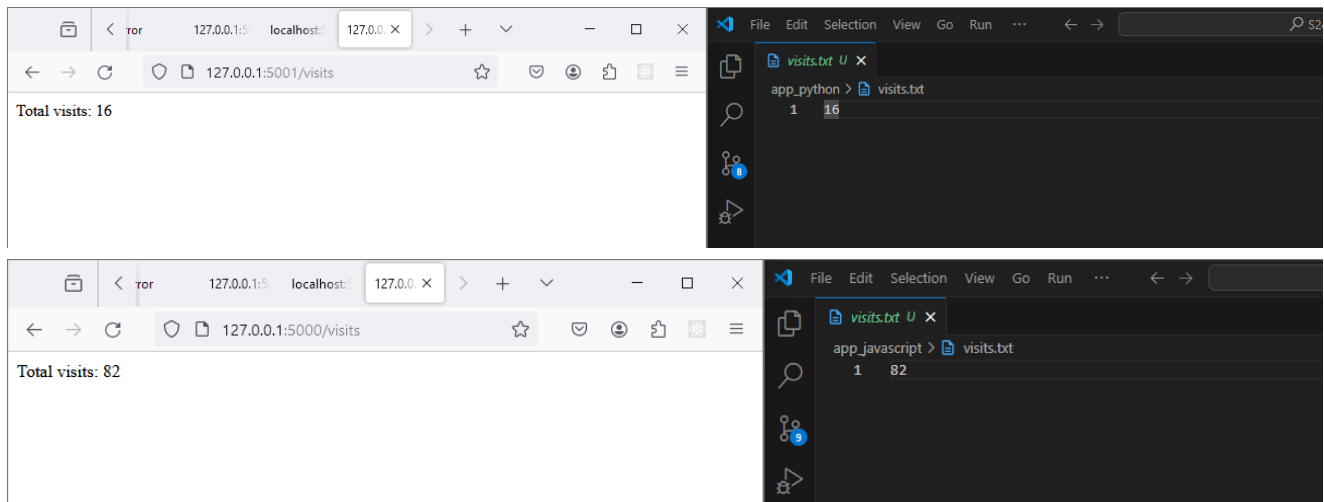


Taks One `/visits` endpoint

- Create a new route `/visits` that returns the number of visits to the website.
- The number of visits should be stored in a file called `visits.txt`.
- Increment the number of visits every time the `/visits` endpoint is accessed.
- The response should include the number of visits.
- The file `visits.txt` should be mounted to the container so that the number of visits is saved even if the container is deleted.



Task Two

- Create a dir called `files` in `/files`
- Create a file called `config.json` in the `files` dir
- Add the following content to the file:

```
{  
  "author": "Zeyad Alagamy"  
}
```

- created a `configmap.yaml` file in the `templates` dir

```
apiVersion: v1  
kind: ConfigMap  
metadata:  
  name: {{ .Release.Name }}-configmap  
data:  
  config.json: |  
    {{ .Files.Get "files/config.json" | indent 4 }}  
  ...
```

- Edit the deployment.yaml file to mount the configmap as a volume to the container in the path `/app/files`

```
apiVersion: apps/v1
kind: Deployment
# ... (rest of the file)
spec:
  # ... (rest of the spec)
  containers:
    - name: {{ .Chart.Name }}
      # ... (rest of the container spec)
      volumeMounts:
        - name: config-volume
          mountPath: /config.json
          subPath: config.json
          {{- with .Values.volumeMounts }}
          {{- toYaml . | nindent 12 }}
          {{- end }}
      volumes:
        - name: config-volume
          configMap:
            name: {{ include "app-<lang>-helm.fullname" . }}-configmap
            {{- with .Values.volumes }}
            {{- toYaml . | nindent 8 }}
            {{- end }}
          # ... (rest of the spec)
```

- Install the chart.

```
helm install app-python-helm ./app-python-helm
helm install app-javascript-helm ./app-javascript-helm
kubectl get pod
```

```
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> helm install app-javascript-helm ./app-javascript-helm\
NAME: app-javascript-helm
LAST DEPLOYED: Wed Apr 24 00:53:05 2024
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
```

```
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> helm install app-python-helm ./app-python-helm\
NAME: app-python-helm
LAST DEPLOYED: Wed Apr 24 00:48:49 2024
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
```

- Check that the file is mounted correctly.

```
kubectl exec app-python-helm-55d795dcdb-cbblr -- cat /config.json
kubectl exec app-javascript-helm-798746dd59-vtznd -- cat /config.json
```

```
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> kubectl exec app-python-helm-55d795dcdb-cbblr -- cat /config.json
"{\r\n  \"author\": \"Zeyad Alagamy\"\r\n}\r\n"
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> kubectl exec app-javascript-helm-798746dd59-vtznd -- cat /config.json
"{\r\n  \"author\": \"Zeyad Alagamy\"\r\n}\r\n"
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> |
```

Bonus Task: ConfigMap via Environment Variables

1. Upgrade Bonus App: done check the previous task.
2. ConfigMap via Environment Variables:

```
(...)
envFrom:
  - configMapRef:
      name: {{ include "app-<lang>-helm.fullname" . }}-configmap
(...)
```

- Add the env to `configmap.yaml` file.

```
K1: "python-value1"
K2: "python-value2"
config.json: |
  {{ .Files.Get "files/config.json" | toJson | indent 4 }}
```

3. Upgrade the chart.

```
helm upgrade app-python-helm ./app-python-helm
helm upgrade app-javascript-helm ./app-javascript-helm
```

4. Check that the environment variables are set correctly.

```
kubectl exec app-python-helm-55d795dcdb-cbblr -- env
kubectl exec app-javascript-helm-587bf66669-r9bm5 -- env
```

```
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> kubectl exec app-python-helm-58889b7779-snvkp -- env
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=app-python-helm-58889b7779-snvkp
K1=python-value1
K2=python-value2
config.json="{\r\n  \"author\": \"Zeyad Alagamy\"\r\n}\r\n"
```

```
PS D:\Innopolis\3\2\devops\S24-core-course-labs\k8s> kubectl exec app-javascript-helm-587bf66669-fzjcm -- env
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=app-javascript-helm-587bf66669-fzjcm
K1=javascript-value1
K2=javascript-value2
```

PS. I had to delete the app-javascript-helm pod to get the new env variables. So, the pod id is different from the previous one.