Certifi

- BookStack on Kubernetes (in-cluster MySQL + external HAProxy)

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Image used: `lscr.io/linuxserver/bookstack:latest` (community-maintained, actively updated, includes `/status` health endpoint that BookStack's own HA docs recommend probing).

1. Create the database in your existing MySQL

BookStack manages its own schema, so it just needs an empty database + a user with full rights on it. Run on your existing MySQL:

```
CREATE DATABASE bookstack CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
CREATE USER 'bookstack'@'%' IDENTIFIED BY 'CHANGE_ME_strong_password';
GRANT ALL PRIVILEGES ON bookstack.* TO 'bookstack'@'%';
FLUSH PRIVILEGES;
```

Use the same password in `01-secret.yaml` (`DB_PASSWORD`).

2. Edit before applying

File	What to change
`01-secret.yaml`	`DB_PASSWORD` to match what you set in MySQL
`02-configmap.yaml`	`APP_URL` (must match the host users/HAProxy hit), `DB_HOST` (your MySQL Service DNS name)
`03-pvc.yaml`	`storageClassName` — run `kubectl get storageclass` to see what's available
`06-ingress.yaml`	`host`, and `ingressClassName` if you're not on ingress-nginx

`DB_HOST` resolution inside the cluster:

- Same namespace as MySQL's Service → just the Service name, e.g. `mysql`
- Different namespace → `mysql.<that-namespace>.svc.cluster.local`

3. Apply

```
kubectl apply -f 01-namespace.yaml
kubectl apply -f 04-secret.yaml
kubectl apply -f 03-configmaps.yaml
kubectl apply -f 04-storage-class.yaml
kubectl apply -f 05-deployment.yaml
kubectl apply -f 06-service.yaml
```

Check it's healthy:

```
kubectl -n bookstack get pods
kubectl -n bookstack logs -f deploy/bookstack
kubectl -n bookstack port-forward svc/bookstack 8080:80
curl -i http://localhost:8080/status   # should return 200
```

Default login is `admin@admin.com` / `password` — change it immediately after first login.

4. Point HAProxy

This setup gives you Proxy Service and **Ingress** Should point the DNS to the Proxy service.
Because Bookstakc is running in diffrent Namespace, so HAProxy cannot cross-connect to diffrent namespace.

Create Proxy for Bookstack:

```
apiVersion: v1
kind: Service
metadata:
  name: bookstack-proxy
  namespace: default
spec:
  type: ExternalName
```

```
  externalName: bookstack.bookstack.svc.cluster.local
  ports:
  - port: 80
```

Example HAProxy backend:

```
I Hosts:
        - bookstack.yourdomain.com
Add the below in rules:
- host: bookstack.yourdomain.com
      http:
        paths:
          - path: /
            pathType: Prefix
            backend:
              service:
                name: bookstack-proxy
                port:
                  number: 80
```