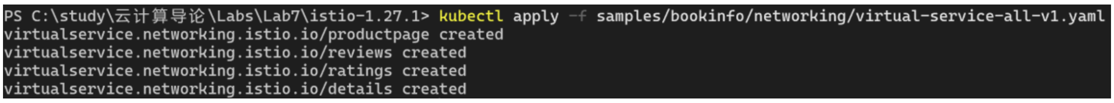
Lab8

Traffic Shifting

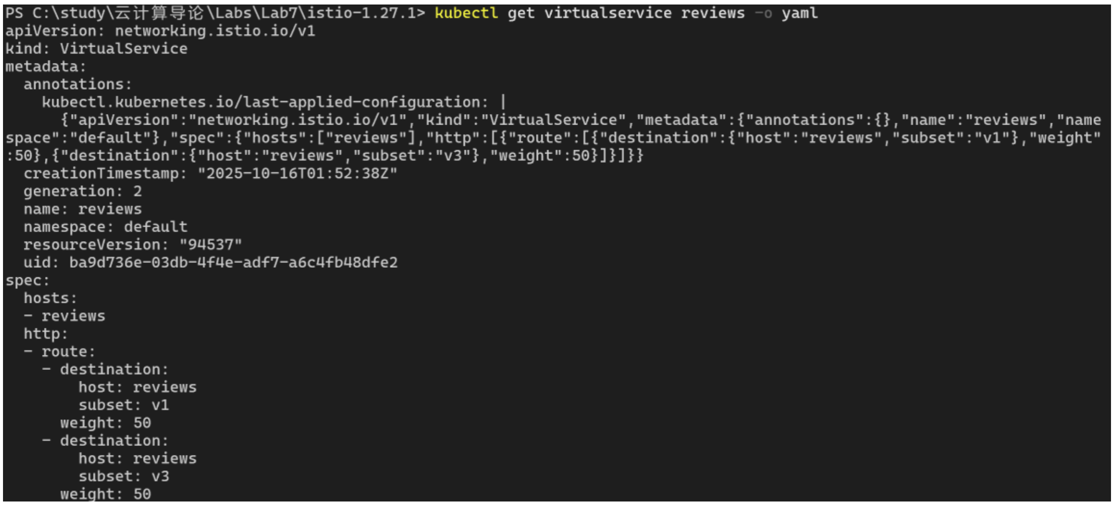
Apply weight-based routing

1. To get started, run this command to route all traffic to the v1 version:
   $ kubectl apply -f samples/bookinfo/networking/virtual-service-all-v1.yaml



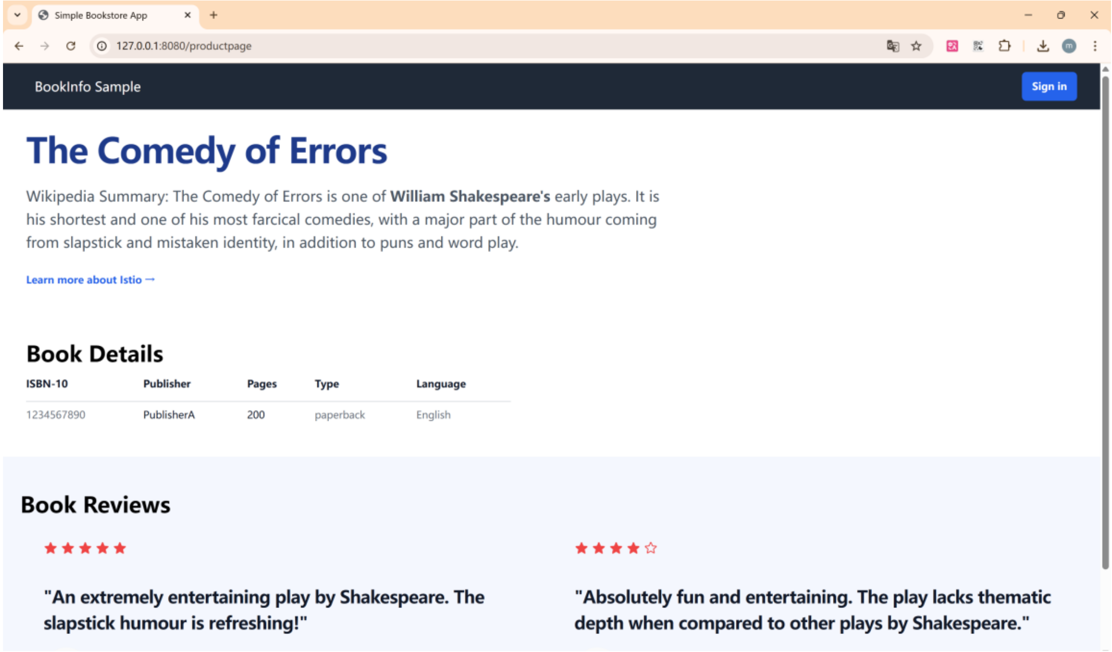
```
PS C:\study\云计算导论\Labs\Lab7\istio-1.27.1> kubectl apply -f samples/bookinfo/networking/virtual-service-all-v1.yaml
virtualservice.networking.istio.io/productpage created
virtualservice.networking.istio.io/reviews created
virtualservice.networking.istio.io/ratings created
virtualservice.networking.istio.io/details created
```

2. Transfer 50% of the traffic from reviews:v1 to reviews:v3 with the following command:
   kubectl apply -f samples/bookinfo/networking/virtual-service-reviews-50-v3.yaml
3. Wait a few seconds for the new rules to propagate and then confirm the rule was replaced:
   kubectl get virtualservice reviews -o yaml



```
PS C:\study\云计算导论\Labs\Lab7\istio-1.27.1> kubectl get virtualservice reviews -o yaml
apiVersion: networking.istio.io/v1
kind: VirtualService
metadata:
  annotations:
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"networking.istio.io/v1","kind":"VirtualService","metadata":{"annotations":{},"name":"reviews","name
space":"default"},"spec":{"hosts":["reviews"],"http":[{"route":[{"destination":{"host":"reviews","subset":"v1"},"weight"
:50},{"destination":{"host":"reviews","subset":"v3"},"weight":50}]}]}}
  creationTimestamp: "2025-10-16T01:52:38Z"
  generation: 2
  name: reviews
  namespace: default
  resourceVersion: "94537"
  uid: ba9d736e-03db-4f4e-adf7-a6c4fb48dfe2
spec:
  hosts:
  - reviews
  http:
  - route:
    - destination:
        host: reviews
        subset: v1
      weight: 50
    - destination:
        host: reviews
        subset: v3
      weight: 50
```

4. Refresh the /productpage in your browser and you now see *red* colored star ratings approximately 50% of the time. This is because the v3 version of reviews accesses the star ratings service, but the v1 version does not.



The Comedy of Errors

Wikipedia Summary: The Comedy of Errors is one of **William Shakespeare's** early plays. It is his shortest and one of his most farcical comedies, with a major part of the humour coming from slapstick and mistaken identity, in addition to puns and word play.

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Book Details

ISBN-10	Publisher	Pages	Type	Language
1234567890	PublisherA	200	paperback	English

Book Reviews

★★★★★

"An extremely entertaining play by Shakespeare. The slapstick humour is refreshing!"

★★★★☆

"Absolutely fun and entertaining. The play lacks thematic depth when compared to other plays by Shakespeare."

5. Assuming you decide that the reviews:v3 microservice is stable, you can route 100% of the traffic to reviews:v3 by applying this virtual service:
   kubectl apply -f samples/bookinfo/networking/virtual-service-reviews-v3.yaml
6. Refresh the /productpage several times. Now you will always see book reviews with red colored star ratings for each review.

Cleanup

1. Remove the application routing rules:
   kubectl delete -f samples/bookinfo/networking/virtual-service-all-v1.yaml