

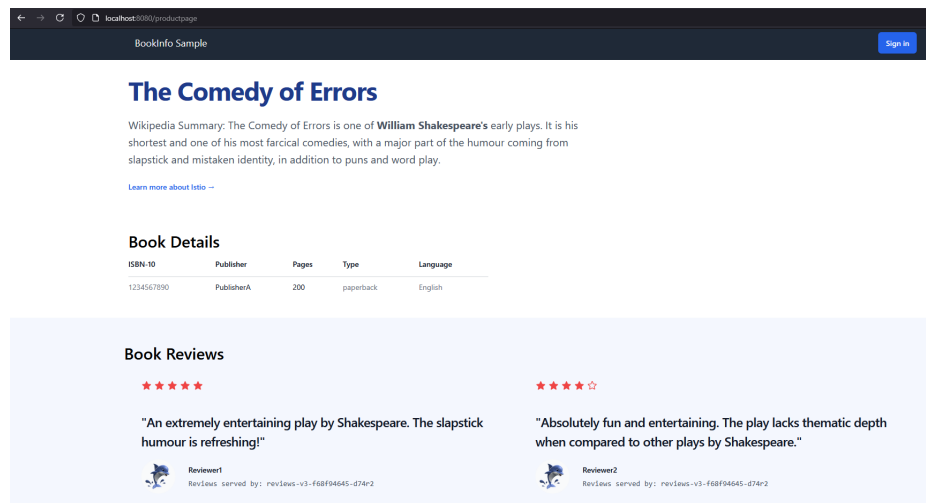
Lab 5

Michael Cullen

March 2025

1 Traffic Shifting

```
mj@LAPTOP-PSEGHGDN:~/istio-1.25.0$ kubectl apply -f virtual-service-reviews-v1-v3.yaml
virtualservice.networking.istio.io/reviews configured
mj@LAPTOP-PSEGHGDN:~/istio-1.25.0$ kubectl describe virtualservice reviews
Name:         reviews
Namespace:    default
Labels:       <none>
Annotations:  <none>
API Version:  networking.istio.io/v1
Kind:         VirtualService
Metadata:
  Creation Timestamp:  2025-03-26T14:19:13Z
  Generation:         2
  Resource Version:    5849
  UID:                 efd8c8e-e15f-438a-affe-b88b1bb70ee9
Spec:
  Hosts:
    reviews
  Http:
    Route:
      Destination:
        Host:  reviews
        Subset: v1
        Weight: 50
      Destination:
        Host:  reviews
        Subset: v3
        Weight: 50
  Events: <none>
mj@LAPTOP-PSEGHGDN:~/istio-1.25.0$
```



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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!"



Reviewer1
Reviews served by: reviews-v2-65cb66b45c-prg5h

★★★★☆


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



Reviewer2
Reviews served by: reviews-v2-65cb66b45c-prg5h

2 Request Routing

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 **jason**
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3 Fault Injection

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4 Circuit Breaking

```
# target 99% 0.0151771
# target 99.9% 0.0156311
Error cases : count 19 avg 0.0023305997 +/- 0.001163 min 0.000828712 max 0.004765466 sum 0.044281394
# range, mid point, percentile, count
>= 0.000828712 , 0.001 , 0.000914356 , 5.26, 1
> 0.001 <= 0.002 , 0.0015 , 36.84, 6
> 0.002 <= 0.003 , 0.0025 , 73.68, 7
> 0.003 <= 0.004 , 0.0035 , 94.21, 2
> 0.004 <= 0.004765466 , 0.00438273 , 100.00, 3
# target 50% 0.00235714
# target 75% 0.003125
# target 90% 0.00428867
# target 99% 0.00471699
# target 99.9% 0.00476862
# Socket and IP used for each connection:
[0] 5 socket used, resolved to 10.101.162.132:8080, connection timing : count 5 avg 0.0012978546 +/- 0.00199 min 0.000260128 max 0.005278073 sum 0.0064892
73
[1] 7 socket used, resolved to 10.101.162.132:8080, connection timing : count 7 avg 0.00037429914 +/- 0.0001504 min 0.000246343 max 0.000717974 sum 0.0026
20094
[2] 8 socket used, resolved to 10.101.162.132:8080, connection timing : count 8 avg 0.00064015388 +/- 0.0007311 min 0.000264747 max 0.002516024 sum 0.0051
21221
Connection time (s) : count 20 avg 0.0007115299 +/- 0.001157 min 0.000246343 max 0.005278073 sum 0.014230598
Sockets used: 20 (for perfect keepalive, would be 3)
Uniform: false, Jitter: false, Catchup allowed: true
IP addresses distribution:
10.101.162.132:8080: 20
Code 200 : 11 (55.0 %)
Code 503 : 19 (95.0 %)
Response Header Sizes : count 30 avg 89.833333 +/- 118.1 min 0 max 245 sum 2695
Response Body/Total Sizes : count 30 avg 470.16667 +/- 301.2 min 241 max 866 sum 14185
All done 30 calls (plus 0 warmup) 0.588 as avg, 523.0 ops
$ curl -s -H "X-ISTIO-PROXY-STATUS: 1" -X GET http://10.101.162.132:8080/stats | grep httpbin | grep pending
# curl -s -H "X-ISTIO-PROXY-STATUS: 1" -X GET http://10.101.162.132:8080/stats | grep httpbin | grep pending
cluster.outbound|8080||httpbin.default.svc.cluster.local|circuit-breakers.default.remaining_pending: 1
cluster.outbound|8080||httpbin.default.svc.cluster.local|circuit-breakers.default.rq_pending_open: 0
cluster.outbound|8080||httpbin.default.svc.cluster.local|circuit-breakers.high_rq_pending_open: 0
cluster.outbound|8080||httpbin.default.svc.cluster.local|upstream_rq_pending_active: 0
cluster.outbound|8080||httpbin.default.svc.cluster.local|upstream_rq_pending_failure_eject: 0
cluster.outbound|8080||httpbin.default.svc.cluster.local|upstream_rq_pending_overflow: 28
cluster.outbound|8080||httpbin.default.svc.cluster.local|upstream_rq_pending_total: 23
```