

Fault Injection

David Darigan

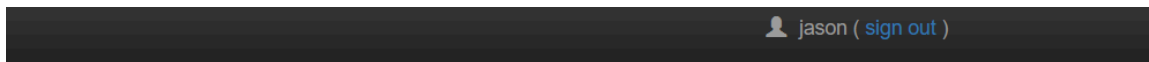
C00263218

1. Create a fault injection rule to delay traffic coming from the test user **jason** & confirm

```
C:\Users\Darigan\Projects\istio-1.21.2>kubectl apply -f samples/bookinfo/networking/virtual-service-ratings-test-delay.yaml
virtualservice.networking.istio.io/ratings configured

C:\Users\Darigan\Projects\istio-1.21.2>kubectl get virtualservice ratings -o yaml
apiVersion: networking.istio.io/v1beta1
kind: VirtualService
metadata:
  annotations:
    kubernetes.io/last-applied-configuration: |
      {"apiVersion":"networking.istio.io/v1alpha3","kind":"VirtualService","metadata":{"annotations":{"name":"ratings","namespace":"default"},"spec":{"hosts":["ratings"]},"subsets":[{"fault":{"delay":{"fixedDelay":"7s","percentage":{"value":100}}},"match":[{"headers":{"end-user":{"exact":"jason"}}}],route":[{"destination":{"host":"ratings","subset":"v1"}]}]}]}
  creationTimestamp: "2024-05-09T01:49:41Z"
  generation: 2
  name: ratings
  namespace: default
  resourceVersion: "2523"
  uid: 5673e572-495d-47ce-a3ad-49b7443b5427
spec:
  hosts:
  - ratings
  http:
  - fault:
      delay:
        fixedDelay: 7s
        percentage:
          value: 100
    match:
    - headers:
        end-user:
          exact: jason
    route:
    - destination:
        host: ratings
        subset: v1
    - route:
        - destination:
            host: ratings
            subset: v1
```

2. Sign in as Jason (login was slow, as intended)



Comedy of Errors

shortest and one of his most farcical comedies, with a major part of the humour coming from slapstick and mistaken identity, in

Error fetching product reviews!

Sorry, product reviews are currently unavailable for this book.

3. Open dev tools and reload from 'network', took about 5 seconds to refresh

The Comedy of Errors

Summary: **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.

Book Details

Error fetching product reviews!

Sorry, product reviews are currently unavailable for this book.

chrome://book/

Inspector Console Debugger Network Style Editor Performance Memory Storage Accessibility Application

Filter URLs

| | Method | Domain | File | Initiator | Type | Transferred | Size | 0 ms | 2.56 s | 5.12 s | 7.68 s |
|---|--------|-----------|-------------------------|---------------------------------|--------|-------------|-----------|------|--------|--------|---------|
| 1 | GET | 127.0.0.1 | productpage | document | html | 4.18 kB | 3.99 kB | | | | 8023 ms |
| | GET | 127.0.0.1 | bootstrap.min.css | stylesheet | css | cached | 121.20 kB | | | | 8 ms |
| | GET | 127.0.0.1 | bootstrap-theme.min.css | stylesheet | css | cached | 23.41 kB | | | | 65 ms |
| | GET | 127.0.0.1 | jquery.min.js | script | js | cached | 0 B | | | | 65 ms |
| | GET | 127.0.0.1 | bootstrap.min.js | script | js | cached | 0 B | | | | 65 ms |
| | GET | 127.0.0.1 | favicon.ico | FaviconLoader.sys.mjs:175 (img) | x-icon | cached | 0 B | | | | 0 ms |

149.62 kB / 4.18 kB transferred | 6.71 s | 100% content loaded: 6.70 s | book: 6.73 s

4. Create a fault injection http abort rule for user 'jason' and confirm

```
C:\Users\Darigan\Projects\istio-1.21.2>kubectl apply -f samples/bookinfo/networking/virtual-service-ratings-test-abort.yaml
virtualservice.networking.istio.io/ratings configured

C:\Users\Darigan\Projects\istio-1.21.2>kubectl get virtualservice ratings -o yaml
apiVersion: networking.istio.io/v1beta1
kind: VirtualService
metadata:
  annotations:
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"networking.istio.io/v1alpha3","kind":"VirtualService","metadata":{"annotations":{},"name":"ratings","namespace":"default"},"spec":{"hosts":["ratings"],"http":[{"fault":{"abort":{"httpStatus":500,"percentage":{"value":100}},"match":[{"headers":{"end-user":{"exact":"jason"}}}],route":[{"destination":{"host":"ratings","subset":"v1"}}]}]}]}]}
  creationTimestamp: "2024-05-05T01:49:41Z"
  generation: 3
  name: ratings
  namespace: default
  resourceVersion: "2789"
  uid: 5673e572-495d-47ce-a3ad-49b7443b5427
spec:
  hosts:
  - ratings
  http:
  - fault:
      abort:
        httpStatus: 500
        percentage:
          value: 100
      match:
      - headers:
          end-user:
            exact: jason
      route:
      - destination:
          host: ratings
          subset: v1
      - route:
          destination:
            host: ratings
            subset: v1
```

5. Ratings Service is not available for Jason

```

  jason ( sign out )
```

y of Errors

one of his most farcical comedies, with a major part of the humour coming from slapstick and mistaken identity, in

Book Reviews

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

— Reviewer1

Ratings service is currently unavailable

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

— Reviewer2

Ratings service is currently unavailable

Reviews served by:

[reviews-v2-5979c6fc9c-hv5pz](#)

6. Ratings not served at all to any other user

edy of Errors

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— Reviewer1

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

— Reviewer2

Reviews served by:

[reviews-v1-598f9b58fc-rkv8x](#)

7. Remove rules

```
C:\Users\Darigan\Projects\istio-1.21.2>kubectl delete -f samples/bookinfo/networking/virtual-service-all-v1.yaml
virtualservice.networking.istio.io "productpage" deleted
virtualservice.networking.istio.io "reviews" deleted
virtualservice.networking.istio.io "ratings" deleted
virtualservice.networking.istio.io "details" deleted
```