1. download istio 1.27.1 from istio release

名称	修改日期	类型	大小
bin	2025/9/30 14:26	文件夹	
manifests	2025/9/30 14:26	文件夹	
samples	2025/9/30 14:26	文件夹	
tools	2025/9/30 14:26	文件夹	
LICENSE	2025/9/3 21:41	.	12
manifest.yaml	2025/9/3 21:41	Yaml 源文件	1
README.md	2025/9/3 21:41	Markdown 源文件	7

2. start minikube in another terminal


```
PS D:\Istio\istio-1.27.1> minikube start
* Microsoft Windows 11 Home China 10.0.26100.6584 Build 26100.6584 上的 minikube v1.37.0
* Kubernetes 1.34.0 现在可用。如果您想要升级，请指定：--kubernetes-version=v1.34.0
* 根据现有的配置文件使用 docker 驱动程序
* 在集群中 "minikube" 启动节点 "minikube" primary control-plane
* 正在拉取基础镜像 v0.0.48 ...
* 正在为"minikube"重启现有的 docker container ...|
! 从 Minikube 的 container 内部连接到 https://registry.cn-hangzhou.aliyuncs.com/google_containers/ 失败
* 要获取新的外部镜像，可能需要配置代理：https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
* 正在 Docker 28.4.0 中准备 Kubernetes v1.30.0…\
* 正在验证 Kubernetes 组件...
  - 正在使用镜像 registry.cn-hangzhou.aliyuncs.com/google_containers/storage-provisioner:v5
* 启用插件：  storage-provisioner, default-storageclass

! C:\Program Files\Docker\Docker\resources\bin\kubectl.exe 的版本为 1.34.1，可能与 Kubernetes 1.30.0 不兼容。
  - 想要使用 kubectl v1.30.0 吗？尝试使用 'minikube kubectl -- get pods -A' 命令
* 完成! kubectl 现在已配置，默认使用"minikube"集群和"default"命名空间
PS D:\Istio\istio-1.27.1>
```

3. install istio with minikube

```
Windows PowerShell                                          ×      +  ∨                                           —

Windows PowerShell
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安装最新的 PowerShell，了解新功能和改进！https://aka.ms/PSWindows

PS D:\Istio\istio-1.27.1> $env:PATH += ";$pwd\bin"
PS D:\Istio\istio-1.27.1> # 使用完整路径
PS D:\Istio\istio-1.27.1> .\bin\istioctl install -f samples\bookinfo\demo-profile-no-gateways.yaml -y
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✓Istio core installed ⛵
  Processing resources for Istiod. Waiting for Deployment/istio-system/istiod
```

```
✓Istio core installed ⛵
✓Istiod installed 🟣
- Pruning removed resources
 Removed apps/v1, Kind=Deployment/istio-egressgateway.istio-system.
 Removed apps/v1, Kind=Deployment/istio-ingressgateway.istio-system.
 Removed /v1, Kind=Service/istio-ingressgateway.istio-system.
 Removed /v1, Kind=Service/istio-egressgateway.istio-system.
 Removed /v1, Kind=ServiceAccount/istio-ingressgateway-service-account.istio-system.
 Removed /v1, Kind=ServiceAccount/istio-egressgateway-service-account.istio-system.
 Removed rbac.authorization.k8s.io/v1, Kind=RoleBinding/istio-ingressgateway-sds.istio-system.
 Removed rbac.authorization.k8s.io/v1, Kind=RoleBinding/istio-egressgateway-sds.istio-system.
 Removed rbac.authorization.k8s.io/v1, Kind=Role/istio-ingressgateway-sds.istio-system.
 Removed rbac.authorization.k8s.io/v1, Kind=Role/istio-egressgateway-sds.istio-system.
 Removed policy/v1, Kind=PodDisruptionBudget/istio-ingressgateway.istio-system.
 Removed policy/v1, Kind=PodDisruptionBudget/istio-egressgateway.istio-system.
✓Installation complete
```

4. install the Kubernetes Gateway API CRDs

```
PS D:\Istio\istio-1.27.1> kubectl apply -f samples\gateway-api-crd.yaml
customresourcedefinition.apiextensions.k8s.io/gatewayclasses.gateway.networking.k8s.io created
customresourcedefinition.apiextensions.k8s.io/gateways.gateway.networking.k8s.io created
customresourcedefinition.apiextensions.k8s.io/grpcroutes.gateway.networking.k8s.io created
customresourcedefinition.apiextensions.k8s.io/httproutes.gateway.networking.k8s.io created
customresourcedefinition.apiextensions.k8s.io/referencegrants.gateway.networking.k8s.io created
PS D:\Istio\istio-1.27.1> kubectl get crd | findstr "gateway.networking.k8s.io"
gatewayclasses.gateway.networking.k8s.io     2025-10-15T02:38:48Z
gateways.gateway.networking.k8s.io           2025-10-15T02:38:48Z
grpcroutes.gateway.networking.k8s.io         2025-10-15T02:38:48Z
httproutes.gateway.networking.k8s.io         2025-10-15T02:38:49Z
referencegrants.gateway.networking.k8s.io    2025-10-15T02:38:49Z
```

5. deploy the BookInfo sample application

```
PS D:\Istio\istio-1.27.1> kubectl apply -f samples/bookinfo/platform/kube/bookinfo.yaml
service/details created
serviceaccount/bookinfo-details created
deployment.apps/details-v1 created
service/ratings created
serviceaccount/bookinfo-ratings created
deployment.apps/ratings-v1 created
service/reviews created
serviceaccount/bookinfo-reviews created
deployment.apps/reviews-v1 created
deployment.apps/reviews-v2 created
deployment.apps/reviews-v3 created
service/productpage created
serviceaccount/bookinfo-productpage created
deployment.apps/productpage-v1 created
```

```
PS D:\Istio\istio-1.27.1> kubectl get services
NAME          TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)    AGE
details       ClusterIP   10.96.162.106    <none>        9080/TCP   6m14s
kubernetes    ClusterIP   10.96.0.1        <none>        443/TCP    83m
productpage   ClusterIP   10.100.231.13    <none>        9080/TCP   6m13s
ratings       ClusterIP   10.107.228.112   <none>        9080/TCP   6m13s
reviews       ClusterIP   10.97.237.143    <none>        9080/TCP   6m13s
```

```
PS D:\Istio\istio-1.27.1> kubectl get pods
NAME                              READY   STATUS    RESTARTS   AGE
details-v1-7b88fb8889-n95p9       2/2     Running   0          7m1s
productpage-v1-79d79d6-tg95w      2/2     Running   0          7m
ratings-v1-5b89cf4bbf-mldvw       2/2     Running   0          7m1s
reviews-v1-ffd57b847-h4ptj        2/2     Running   0          7m1s
reviews-v2-8cc6fd8dc-vgz6d        2/2     Running   0          7m1s
reviews-v3-cf48455-jq25p          2/2     Running   0          7m1s
```

6. open the application to outside traffic

```
PS D:\Istio\istio-1.27.1> kubectl apply -f samples/bookinfo/gateway-api/bookinfo-gateway.yaml
gateway.gateway.networking.k8s.io/bookinfo-gateway created
httproute.gateway.networking.k8s.io/bookinfo created
PS D:\Istio\istio-1.27.1> kubectl annotate gateway bookinfo-gateway networking.istio.io/service-type=ClusterIP --namespa
ce=default
gateway.gateway.networking.k8s.io/bookinfo-gateway annotated
PS D:\Istio\istio-1.27.1> kubectl get gateway
NAME               CLASS   ADDRESS                                              PROGRAMMED   AGE
bookinfo-gateway   istio   bookinfo-gateway-istio.default.svc.cluster.local     True         30s
```

7. access the application

```
PS D:\Istio\istio-1.27.1> kubectl port-forward svc/bookinfo-gateway-istio 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
```
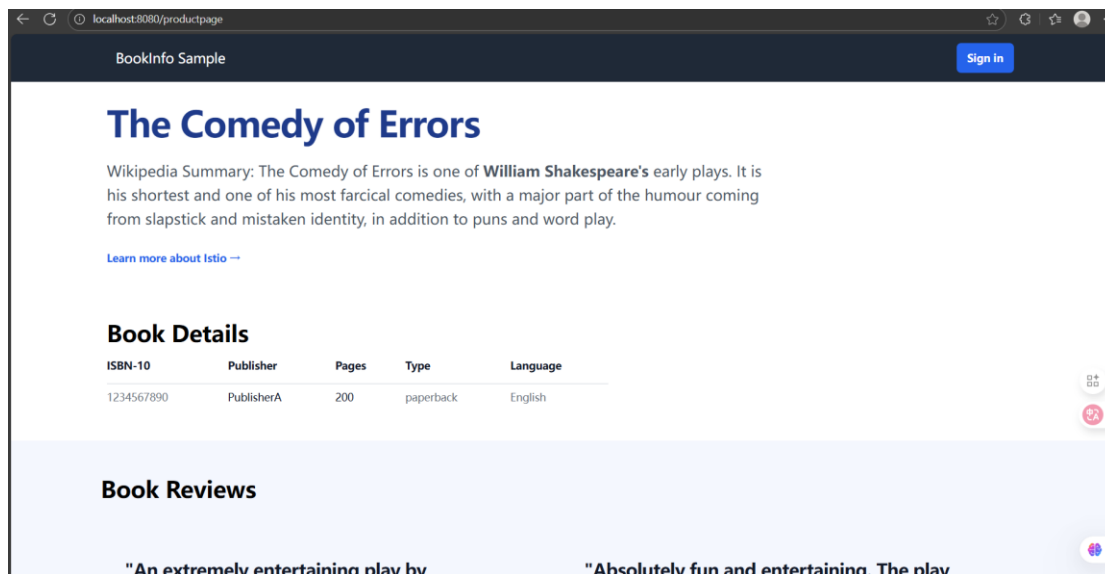
8. access the dashboard

```
PS D:\Istio\istio-1.27.1> kubectl apply -f samples/addons
serviceaccount/grafana created
configmap/grafana created
service/grafana created
deployment.apps/grafana created
configmap/istio-grafana-dashboards created
configmap/istio-services-grafana-dashboards created
deployment.apps/jaeger created
service/tracing created
service/zipkin created
service/jaeger-collector created
serviceaccount/kiali created
configmap/kiali created
clusterrole.rbac.authorization.k8s.io/kiali created
clusterrolebinding.rbac.authorization.k8s.io/kiali created
service/kiali created
deployment.apps/kiali created
serviceaccount/loki created
configmap/loki created
```

```
PS D:\Istio\istio-1.27.1> kubectl rollout status deployment/kiali -n istio-system
Waiting for deployment "kiali" rollout to finish: 0 of 1 updated replicas are available...
deployment "kiali" successfully rolled out
```