

# Google Kubernetes Engine Qwik Start

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<https://cloud.google.com/kubernetes-engine/docs/deploy-app-cluster>

Task 1~3 : create GKE cluster and deploy a hello-app service.

The screenshot shows the Google Cloud Platform console with the Kubernetes Engine section selected. A cluster named 'my-cluster' is shown in the 'Clusters' list. The 'Cloud Shell' terminal is open, showing the commands used to create the cluster and deploy the service.

```
gcloud container clusters create my-cluster --zone asia-east1-a
gcloud container clusters get-credentials my-cluster --zone asia-east1-a
kubectl create deployment hello-server --image=gcr.io/google-samples/hello-app:1.0
kubectl expose deployment hello-server --type=LoadBalancer --port 8080
```

The terminal output shows the cluster creation details and the deployment of the service. The service is named 'hello-server' and is exposed as a LoadBalancer on port 8080.

← → ↺ ⚠ 不安全 | 34.80.141.142:8080

Hello, world!  
Version: 1.0.0  
Hostname: hello-server-5597d96dd4-5f5hr

Task 4~3 : Creating Pods and Interacting with Pods

```

r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl create -f pod.yaml
error: the path "pod.yaml" does not exist
r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl create -f service.yaml
error: the path "service.yaml" does not exist
r10725012@cloudshell:~ (symmetric-ace-382206) $ touch pod.yaml
r10725012@cloudshell:~ (symmetric-ace-382206) $ nano pod.yaml
r10725012@cloudshell:~ (symmetric-ace-382206) $ cat
^C
r10725012@cloudshell:~ (symmetric-ace-382206) $ ls
pod.yaml  README-cloudshell.txt
r10725012@cloudshell:~ (symmetric-ace-382206) $ nano service.yaml
r10725012@cloudshell:~ (symmetric-ace-382206) $

```

```

r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
hello-server-5597d96dd4-5f5hr      1/1     Running   0           46m
monolith                            1/1     Running   0           25s
r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl describe pods monolith
Name:                                monolith
Namespace:                          default
Priority:                             0
Service Account:                     default
Node:                                gke-my-cluster-default-pool-lb29ef89-m2hg/10.140.0.4
Start Time:                          Mon, 03 Apr 2023 02:40:24 +0000

```

## server

CLOUD SHELL 終端機 (symmetric-ace-382206) x (symmetric-ace-382206) x (symmetric-ace-382206) x + ▾

```

r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl port-forward monolith 10080:80
Forwarding from 127.0.0.1:10080 -> 80
Handling connection for 10080
Handling connection for 10080
Handling connection for 10080
Handling connection for 10080

```

## client

```

r10725012@cloudshell:~ (symmetric-ace-382206) $ TOKEN=$(curl http://127.0.0.1:10080/login -u user|jq -r '.token')
Enter host password for user 'user':
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload    Total   Spent    Left   Speed
100 222 100 222    0     0  440      0 --:--:-- --:--:-- --:--:--    439
r10725012@cloudshell:~ (symmetric-ace-382206) $ TOKEN=$(curl http://127.0.0.1:10080/login -u user|jq -r '.token')
Enter host password for user 'user':
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload    Total   Spent    Left   Speed
100 222 100 222    0     0  452      0 --:--:-- --:--:-- --:--:--    452
r10725012@cloudshell:~ (symmetric-ace-382206) $ curl -H "Authorization: Bearer $TOKEN" http://127.0.0.1:10080/secure
{"message":"Hello"}
r10725012@cloudshell:~ (symmetric-ace-382206) $ curl http://127.0.0.1:10080
{"message":"Hello"}
r10725012@cloudshell:~ (symmetric-ace-382206) $ kubectl exec monolith --stdin --tty -c monolith /bin/sh
kubectl exec [POD] [COMMAND] is DEPRECATED and will be removed in a future version. Use kubectl exec [POD] -- [COMMAND] instead.
/ # ping -c 3 google.com
PING google.com (64.233.189.102): 56 data bytes
64 bytes from 64.233.189.102: seq=0 ttl=114 time=1.042 ms
64 bytes from 64.233.189.102: seq=1 ttl=114 time=0.439 ms
64 bytes from 64.233.189.102: seq=2 ttl=114 time=0.381 ms

--- google.com ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 0.381/0.620/1.042 ms
/ #

```

## logs

```
CLOUD SHELL
終端機 (symmetric-ace-382206) x (symmetric-ace-382206) x (symmetric-ace-382206) x + v

Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to symmetric-ace-382206.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
r10725012@cloudshell:~ (symmetric-ace-382206)$ kubectl logs -f hello-server-5597d96dd4-5f5hr
2023/04/03 01:54:50 Server listening on port 8080
2023/04/03 01:57:59 Serving request: /
2023/04/03 01:57:59 Serving request: /favicon.ico
2023/04/03 02:16:26 Serving request: /login
2023/04/03 02:16:27 Serving request: /favicon.ico
2023/04/03 02:17:26 Serving request: /login
2023/04/03 02:17:26 Serving request: /favicon.ico
2023/04/03 02:17:37 Serving request: /login
2023/04/03 02:17:37 Serving request: /favicon.ico
^C
r10725012@cloudshell:~ (symmetric-ace-382206)$ kubectl logs -f monolith
2023/04/03 02:40:31 Starting server...
2023/04/03 02:40:31 Health service listening on 0.0.0.0:81
2023/04/03 02:40:31 HTTP service listening on 0.0.0.0:80
127.0.0.1:39548 - - [Mon, 03 Apr 2023 02:42:23 UTC] "GET /login HTTP/1.1" curl/7.74.0
127.0.0.1:48780 - - [Mon, 03 Apr 2023 02:43:03 UTC] "GET /login HTTP/1.1" curl/7.74.0
127.0.0.1:60750 - - [Mon, 03 Apr 2023 02:43:15 UTC] "GET /secure HTTP/1.1" curl/7.74.0
127.0.0.1:53698 - - [Mon, 03 Apr 2023 02:43:35 UTC] "GET / HTTP/1.1" curl/7.74.0
```

## Task5: Create a Service

```
r10725012@cloudshell:~ (symmetric-ace-382206)$ kubectl create -f service.yaml
Error from server (AlreadyExists): error when creating "service.yaml": services "monolith" already exists
r10725012@cloudshell:~ (symmetric-ace-382206)$ kubectl get service
NAME          TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
hello-server  LoadBalancer 10.120.1.43    34.80.141.142  8080:31967/TCP   50m
kubernetes    ClusterIP      10.120.0.1     <none>         443/TCP          58m
monolith       LoadBalancer 10.120.12.11   35.187.146.146 80:30544/TCP     5m44s
```

← → ↻ ⚠ 不安全 | 35.187.146.146

```
{"message": "Hello"}
```

# Installing Anthos Service Mesh on GKE

Pretask:

```
cloudresourcemanager.googleapis.com

Operation "operations/acet.p2-84477663894-d652abba-b3c4-431d-b7cb-1bd645aldfe8" finished successfully.
r10725012@cloudshell:~ (symmetric-ace-382206)$
r10725012@cloudshell:~ (symmetric-ace-382206)$ export PROJECT_ID=$(gcloud config get-value project)
export PROJECT_NUMBER=$(gcloud projects describe ${PROJECT_ID} \
--format="value(projectNumber)")
export CLUSTER_NAME=central
export CLUSTER_ZONE=us-central1-b
export WORKLOAD_POOL=${PROJECT_ID}.svc.id.goog
export MESH_ID="proj-${PROJECT_NUMBER}"
Your active configuration is: [cloudshell-20798]
r10725012@cloudshell:~ (symmetric-ace-382206)$ gcloud projects get-iam-policy ${PROJECT_ID} \
--flatten="bindings[].members" \
--filter="bindings.members:user:${PROJECT_ID}:dev/null)"
---
bindings:
  members: user:r10725012@g.ntu.edu.tw
  role: roles/owner
etag: BwX42KdmCvo=
version: 1
r10725012@cloudshell:~ (symmetric-ace-382206)$
```

Task1: Set up your GKE cluster

Task2: Prepare to install Anthos Service Mesh

```
MASTER_VERSION: 1.24.9-gke.3200
MASTER_IP: 34.133.208.147
MACHINE_TYPE: n1-standard-4
NODE_VERSION: 1.24.9-gke.3200
NUM_NODES: 4
STATUS: RUNNING
r10725012@cloudshell:~ (symmetric-ace-382206)$ kubectl auth can-i '*' '*' --all-namespaces
yes
r10725012@cloudshell:~ (symmetric-ace-382206)$ gcloud iam service-accounts create connect-sa
Created service account [connect-sa].
r10725012@cloudshell:~ (symmetric-ace-382206)$ gcloud projects add-iam-policy-binding ${PROJECT_ID} \
--member="serviceAccount:connect-sa@${PROJECT_ID}.iam.gserviceaccount.com" \
--role="roles/gkehub.connect"
Updated IAM policy for project [symmetric-ace-382206].
bindings:
- members:
  - serviceAccount:service-84477663894@compute-system.iam.gserviceaccount.com
  role: roles/compute.serviceAgent
- members:
  - serviceAccount:service-84477663894@container-engine-robot.iam.gserviceaccount.com
  role: roles/container.serviceAgent
- members:
```

```
Cloud Code  Connect to Google Cloud
cloudshell x  symmetric-ace-382206 x +
{}
r10725012@cloudshell:~ (symmetric-ace-382206) $ curl -LO https://storage.googleapis.com/gke-release/asm/istio-1.6.11-asm.1-linux-amd64.tar.gz
% Total % Received % Xferd Average Speed Time Time Time Current
% Dload Upload Total Spent Left Speed
100 57.0M 100 57.0M 0 0 13.8M 0 0:00:04 0:00:04 --:--:-- 13.8M
r10725012@cloudshell:~ (symmetric-ace-382206) $ curl -LO https://storage.googleapis.com/gke-release/asm/istio-1.6.11-asm.1-linux-amd64.tar.gz.1.sig
openssh dgst verify /dev/stdin -signature istio-1.6.11-asm.1-linux-amd64.tar.gz.1.sig istio-1.6.11-asm.1-linux-amd64.tar.gz <<'EOF'
-----BEGIN PUBLIC KEY-----
MFkwEwYHKoZIzj0DAQoDgQAEWZrGCUaJr1H8a36G4UuXv1xv2
wQfK16sxpri2gQJ2VFFgqdg3ixF2h4qNBt0K17ciDhgpwS8t+/960IsIgw==
-----END PUBLIC KEY-----
EOF
% Total % Received % Xferd Average Speed Time Time Time Current
% Dload Upload Total Spent Left Speed
100 71 100 71 0 0 232 0 --:--:-- --:--:-- --:--:-- 232
Verified OK
r10725012@cloudshell:~ (symmetric-ace-382206) $ tar xzf istio-1.6.11-asm.1-linux-amd64.tar.gz
r10725012@cloudshell:~ (symmetric-ace-382206) $ ls
connect-da-key.json istio-1.6.11-asm.1 istio-1.6.11-asm.1-linux-amd64.tar.gz istio-1.6.11-asm.1-linux-amd64.tar.gz.1.sig pod.yaml README-cloudshell.txt service.yaml
r10725012@cloudshell:~ (symmetric-ace-382206) $ cd istio-1.6.11-asm.1
r10725012@cloudshell:~/istio-1.6.11-asm.1 (symmetric-ace-382206) $ export PATH=$PWD/bin:$PATH
r10725012@cloudshell:~/istio-1.6.11-asm.1 (symmetric-ace-382206) $
```

## Task3: Preparing Resource Configuration Files

## Task4: Install Anthos Service Mesh

```
r10725012@cloudshell:~/istio-1.6.11-asm.1/central (symmetric-ace-382206) $ ^C
r10725012@cloudshell:~/istio-1.6.11-asm.1/central (symmetric-ace-382206) $ history | tail -n 10
88 kpt pkg get https://github.com/GoogleCloudPlatform/anthos-service-mesh-packages@1.6.8-asm.9 asm
89 curl -L https://github.com/GoogleContainerTools/kpt/releases/download/v0.39.2/kpt_linux_amd64 > _0_39_2
90 chmod +x kpt_0_39_2
91 ls
92 chmod +x _0_39_2
93 alias kpt="$(readlink -f _0_39_2)"
94 kpt version
95 kpt pkg get https://github.com/GoogleCloudPlatform/anthos-service-mesh-packages@1.6.8-asm.9 asm
96 history | tail -n 5
97 history | tail -n 10
```

### 3. Download the Anthos Service Mesh package.

```
kpt pkg get https://github.com/GoogleCloudPlatform/anthos-service-
mesh-packages@1.6.8-asm.9 asm
r10725012@cloudshell:~/istio-1.6.11-asm.1/central (symmetric-ace-
382206) $ history | tail -n 10
88 kpt pkg get https://github.com/GoogleCloudPlatform/anthos-
service-mesh-packages@1.6.8-asm.9 asm
89 curl -L https://github.com/GoogleContainerTools/kpt/releases/download/v0.39.2/
```

```
kpt_linux_amd64 > _0_39_2 (打錯字，應該是 kpt_0_39_2，但不影響結果)
91 ls
92 chmod +x _0_39_2
93 alias kpt="$(readlink -f _0_39_2)"
94 kpt version (會是 0.39.2)
95 kpt pkg get https://github.com/GoogleCloudPlatform/anthos-
service-mesh-packages@1.6.8-asm.9 asm (ok)
```

Kpt get 錯誤解法



```

r10725012@cloudshell:~/istio-1.6.11-asm.1/central (symmetric-ace-382206)$ cd asm
r10725012@cloudshell:~/istio-1.6.11-asm.1/central/asm (symmetric-ace-382206)$ ls
asm asm-citadel asm-k8s asm-patch-citadel cloudbuild.yaml CONFIGURATION.md id_rsa.enc known_hosts Kptfile kustomize-functions LICENSE README.md
r10725012@cloudshell:~/istio-1.6.11-asm.1/central/asm (symmetric-ace-382206)$ kpt cfg set asm gcloud.project.environProjectNumber ${PROJECT_NUMBER}
kpt cfg set asm gcloud.core.project ${PROJECT_ID}
kpt cfg set asm gcloud.compute.location ${CLUSTER_ZONE}
kpt cfg set asm anthos.servicemesh.profile asm-gcp
asm/
set 17 field(s) of setter "gcloud.container.cluster" to value "central"
asm/
set 2 field(s) of setter "gcloud.project.environProjectNumber" to value "84477663894"
asm/
set 30 field(s) of setter "gcloud.core.project" to value "symmetric-ace-382206"
asm/
set 1 field(s) of setter "gcloud.project.projectNumber" to value "84477663894"
asm/
set 16 field(s) of setter "gcloud.compute.location" to value "us-central1-b"
asm/
set 1 field(s) of setter "anthos.servicemesh.profile" to value "asm-gcp"
r10725012@cloudshell:~/istio-1.6.11-asm.1/central/asm (symmetric-ace-382206)$ istioctl install -f asm/cluster/istio-operator.yaml
! global.mtls.enabled is deprecated; use the PeerAuthentication resource instead
Processing resources for Istio core.

```

```

r10725012@cloudshell:~/istio-1.6.11-asm.1/central/asm (symmetric-ace-382206)$ istioctl install -f asm/cluster/istio-operator.yaml
! global.mtls.enabled is deprecated; use the PeerAuthentication resource instead
Processing resources for Istio core.2023-04-03T12:44:30.972862 error installer failed to verify CRD creation: the server could not find the requested resource
Istio core encountered an error: failed to wait for resource: failed to verify CRD creation: the server could not find the requested resource
Istiod encountered an error: failed to wait for resource: resources not ready after 5m0s: timed out waiting for the condition
Deployment/istio-system/istiod
Ingress gateways encountered an error: failed to wait for resource: resources not ready after 5m0s: timed out waiting for the condition
Deployment/istio-system/istio-ingressgateway
Pruning removed resources.2023-04-03T12:54:47.6525292 warn installer retrieving resources to prune type networking.istio.io/v1alpha3, Kind=DestinationRule: no matches for kind "Desti
nationRule" in version "networking.istio.io/v1alpha3" not found
2023-04-03T12:54:48.2976332 warn installer retrieving resources to prune type networking.istio.io/v1alpha3, Kind=EnvoyFilter: no matches for kind "EnvoyFilter" in version "networking.
istio.io/v1alpha3" not found
2023-04-03T12:54:48.7992702 warn installer retrieving resources to prune type networking.istio.io/v1alpha3, Kind=Gateway: no matches for kind "Gateway" in version "networking.istio.io
/v1alpha3" not found
2023-04-03T12:54:49.2985622 warn installer retrieving resources to prune type networking.istio.io/v1alpha3, Kind=VirtualService: no matches for kind "VirtualService" in version "netwo
rking.istio.io/v1alpha3" not found
2023-04-03T12:54:50.0341542 warn installer retrieving resources to prune type security.istio.io/v1beta1, Kind=PeerAuthentication: no matches for kind "PeerAuthentication" in version "
security.istio.io/v1beta1" not found
2023-04-03T12:54:50.9541512 warn installer retrieving resources to prune type admissionregistration.k8s.io/v1beta1, Kind=MutatingWebhookConfiguration: no matches for kind "MutatingWeb
hookConfiguration" in version "admissionregistration.k8s.io/v1beta1" not found
2023-04-03T12:54:51.0745012 warn installer retrieving resources to prune type admissionregistration.k8s.io/v1beta1, Kind=ValidatingWebhookConfiguration: no matches for kind "Validatin
gWebhookConfiguration" in version "admissionregistration.k8s.io/v1beta1" not found
Error: failed to apply manifests: errors occurred during operation

```

Clean-up gcloud container clusters delete central

# Implementing Cloud Run canary deployments with Git branches and Cloud Build

Before Task:

Add run rules and enable APIs and set git configdata.

Your active configuration is: [cloudshell-21755]

```

r10725012@cloudshell:~ (symmetric-ace-382206)$ export PROJECT_ID=$(gcloud config get-value project)
export PROJECT_NUMBER=$(gcloud projects describe $PROJECT_ID --format='value(projectNumber)')
Your active configuration is: [cloudshell-21755]
r10725012@cloudshell:~ (symmetric-ace-382206)$ gcloud services enable \
  cloudresourcemanager.googleapis.com \
  container.googleapis.com \
  sourcerepo.googleapis.com \
  cloudbuild.googleapis.com \
  containerregistry.googleapis.com \
  run.googleapis.com
Operation "operations/acf.p2-84477663894-0765d724-8d25-4b12-8ffb-58f3711267d0" finished successfully.
r10725012@cloudshell:~ (symmetric-ace-382206)$ gcloud projects add-iam-policy-binding $PROJECT_ID \
  --member=serviceAccount:$PROJECT_NUMBER@cloudbuild.gserviceaccount.com \
  --role=roles/run.admin
Updated IAM policy for project [symmetric-ace-382206].
bindings:
- members:
  - serviceAccount:84477663894@cloudbuild.gserviceaccount.com
  role: roles/cloudbuild.builds.builder
- members:

```

```

r10725012@cloudshell:~ (symmetric-ace-382206)$ git config --global user.email "r10725012@ntu.edu.tw"
git config --global user.name "colaguff"
r10725012@cloudshell:~ (symmetric-ace-382206)$ git clone https://github.com/GoogleCloudPlatform/software-delivery-workshop cloudrun-progression
cd cloudrun-progression/labs/cloudrun-progression
rm -rf ../.git
Cloning into 'cloudrun-progression'...
remote: Enumerating objects: 833, done.
remote: Counting objects: 100% (211/211), done.
remote: Compressing objects: 100% (113/113), done.
remote: Total 833 (delta 249), reused 105 (delta 80), pack-reused 622
Receiving objects: 100% (833/833), 525.64 KiB | 2.55 MiB/s, done.
Resolving deltas: 100% (406/406), done.
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ sed "s/$PROJECT_ID/$PROJECT_ID/g" branch-trigger.json > branch-trigger.json
sed "s/$PROJECT_ID/$PROJECT_ID/g" master-trigger.json > master-trigger.json
sed "s/$PROJECT_ID/$PROJECT_ID/g" tag-trigger.json > tag-trigger.json
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ gcloud source repos create cloudrun-progression
git init

```

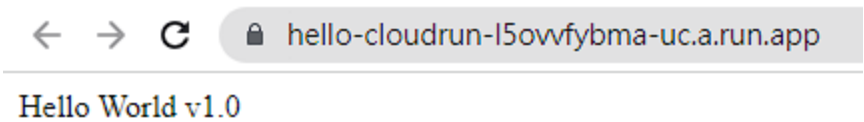
Task1: Creating your Cloud Run service

Task2: Enabling dynamic developer deployments

```

CLOUD SHELL
給碼機 (symmetric-ace-382206) x +
DONE
-----
ID: c3e06722-36d7-4276-811b-2d019aac7ffb
CREATE TIME: 2023-04-06T02:52:46+00:00
DURATION: 30S
SOURCE: gs://symmetric-ace-382206-cloudbuild/source/1680749561.975156-754ef4afb41f402fa58e561182c2bac4.tgz
IMAGES: gcr.io/symmetric-ace-382206/hello-cloudrun (+1 more)
STATUS: SUCCESS
Deploying containers to Cloud Run service [hello-cloudrun] in project [symmetric-ace-382206] region [us-central1]
OK Deploying new service... Done.
OK Creating Revision... Creating Service.
OK Routing traffic...
OK Setting IAM Policy...
Done.
Service [hello-cloudrun] revision [hello-cloudrun-00001-joy] has been deployed and is serving 100 percent of traffic.
Service URL: https://hello-cloudrun-l5ovfbybma-uc.a.run.app
-bash: --tag=prod: command not found
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ PROD_URL=$(gcloud run services describe hello-cloudrun \
--platform managed \
--region us-central1 \
--format=json | jq \
--raw-output ".status.url")
echo $PROD_URL
curl -H "Authorization: Bearer $(gcloud auth print-identity-token)" $PROD_URL
https://hello-cloudrun-l5ovfbybma-uc.a.run.app

```



Google Cloud My First Project 搜尋資源、文件、產品和其他項目 (請按

Cloud Run 服務詳細資料 編輯及部署新的修訂版本 設定持續部署

hello-cloudrun 地區: us-central1 網址: https://hello-cloudrun-l5ovfbybma-uc.a.run.app

指標 服務等級目標 記錄檔 修訂版本 網路 安全性 觸發條件 整合 預覽 YAML

修訂版本 管理流量

篩選 篩選修訂版本

名稱	流量	已部署 ↓	修訂版本網址 (標記)	動作
hello-cloudrun-00001-joy	100% (全轉送至最新版本)	3 分鐘前	+	⋮

Tigger when build/deploy for any branch other than master

觸發條件 + 建立觸發條件 連接存放區 管理存放區

地區 global (非區域性)

篩選 輸入屬性名稱或值

名稱 ↑	說明	存放區	事件	版本設定	狀態	
branch	Trigger dev build/deploy for any branch other than master	cloudrun-progression	推送至分支版本	branch-cloudbuild.yaml	已啟用	執行 ⋮

Edit v1.1 app.py

```

from flask import Flask

app = Flask(__name__)

@app.route('/')
def hello_world():
    return 'Hello World v1.0'

if __name__ == '__main__':
    app.run(debug=True, host='0.0.0.0', port=int(os.environ.get('PORT', 8080)))
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ edit app.py
[new-feature-1 d42b1d3] updated
1 file changed, 1 insertion(+), 1 deletion(-)
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 285 bytes | 285.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2)
To https://source.developers.google.com/p/symmetric-ace-382206/r/cloudrun-progression
+ [new branch] new-feature-1 -> new-feature-1

```

There is a new build

版本記錄 || 停止串流版本

地區  
global (非區域性)

篩選 輸入屬性名稱或值

<input type="checkbox"/>	狀態	版本	來源	參照	修訂版本	觸發條件名稱	建立時間	持續時間	
<input type="checkbox"/>	✓	083118be	<a href="#">cloudrun-progression</a>	new-feature-1	d42b1d3	branch	2023/4/6 上午11:00	1 分鐘 48 秒	⋮
<input type="checkbox"/>	✓	c3e06722	<a href="#">Google Cloud Storage</a>	-	-	-	2023/4/6 上午10:52	29 秒	⋮

Cloud Run | 服務詳細資料 | 編輯及部署新的修訂版本 | 設定持續部署

✓ hello-cloudrun 地區: us-central1 網址: <https://hello-cloudrun-l5ovfybma-uc.a.run.app>

指標 服務等級目標 記錄檔 修訂版本 網路 安全性 觸發條件 整合 預覽

修訂版本 ⇄ 管理流量

篩選 篩選修訂版本

<input type="radio"/>	名稱	流量	已部署 ↓	修訂版本網址 (標記)	動作
<input checked="" type="radio"/>	hello-cloudrun-00002-dey	0%	1 分鐘前	<a href="#">new-feature-1</a>	⋮
<input type="radio"/>	hello-cloudrun-00001-joy	100%	10 分鐘前		⋮

View the v1.1 web page

```
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206) $ BRANCH_URI=$(gcloud run services describe hello-cloudrun \
--platform managed \
--region us-central1 \
--format=json | jq \
--raw-output '.status.traffic[] | select (.tag=="new-feature-1")|.url')
echo $BRANCH_URI
https://new-feature-1---hello-cloudrun-l5ovfybma-uc.a.run.app
```

管理資源 - My Firs x <https://new-featu> x <https://hello-clou> x |

new-feature-1---hello-cloudrun-l5ovfybma-uc.a.run.app

Hello World v1.1

Task3: Automating canary testing

Merge branch to maser and git push gcp master.  
See a third revision.

```
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206) $ git checkout master
Switched to branch 'master'
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206) $ git branch
* master
  new-feature-1
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206) $ git merge new-feature-1
Updating 41b08a6..d42b1d3
Fast-forward
 app.py | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
```



修訂版本

管理流量

篩選

篩選修訂版本

	名稱	流量	已部署 ↓	修訂版本網址 (標記) ?	動作
<input checked="" type="radio"/>	<input checked="" type="checkbox"/> hello-cloudrun-00003-heb	0%	1 分鐘前	canary <a href="#">↗</a> sha-d42b1d3 <a href="#">↗</a> <a href="#">✎</a>	<a href="#">⋮</a>
<input type="radio"/>	<input checked="" type="checkbox"/> hello-cloudrun-00002-dey	0%	11 分鐘前	new-feature-1 <a href="#">↗</a>	<a href="#">⋮</a>
<input type="radio"/>	<input checked="" type="checkbox"/> hello-cloudrun-00001-joy	100%	19 分鐘前		<a href="#">⋮</a>

```
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ gcloud run services update-traffic ${_SERVICE_NAME} --to-revisions ${_REGION}
ERROR: (gcloud.run.services.update-traffic) argument --region: expected one argument
Usage: gcloud run services update-traffic [[SERVICE] --namespace=NAMESPACE] [optional flags]
optional flags may be:
  --async | --clear-tags | --cluster |
  --cluster-location | --context | --help |
  --kubeconfig | --namespace | --platform | --region |
  --remove-tags | --set-tags | --to-latest |
  --to-revisions | --to-tags | --update-tags

For detailed information on this command and its flags, run:
  gcloud run services update-traffic --help
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ CANARY_URL=$(gcloud run services describe hello-cloudrun \
--platform managed \
--region us-central1 \
--format=json | jq \
--raw-output ".status.traffic[]" | select (.tag=="canary")|.url)
echo $CANARY_URL
https://canary---hello-cloudrun-15ovvfybma-uc.a.run.app
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$
```

```
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ curl -H "Authorization: Bearer $(gcloud auth print-identity-token)" $CANARY_URL
Hello World v1.1r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ LIVE_URL=$(gcloud run services describe hello-cloudrun \
--platform managed \
--region us-central1 \
--format=json | jq \
--raw-output ".status.url")
for i in {0..20};do
  curl -H "Authorization: Bearer $(gcloud auth print-identity-token)" $LIVE_URL; echo \n
done
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
Hello World v1.0n
```

## Task4: Releasing to production

set up the tag trigger, create a new tag and push to the remote repository

```
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ gcloud beta builds triggers create cloud-source-repositories \
--trigger-config tag-trigger.json
Created [https://cloudbuild.googleapis.com/v1/projects/symmetric-ace-382206/locations/global/triggers/fdf4243b-2f4b-4873-83b3-f25ab2403e46].
NAME: tag
CREATE_TIME: 2023-04-06T03:18:28+00:00
STATUS:
r10725012@cloudshell:~/cloudrun-progression/labs/cloudrun-progression (symmetric-ace-382206)$ git tag 1.1
git push gcp 1.1
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
To https://source.developers.google.com/p/symmetric-ace-382206/r/cloudrun-progression
 * [new tag]          1.1 -> 1.1
```

版本記錄

停止串流版本

地區

global (非區域性)

?

篩選

輸入屬性名稱或值

<input type="checkbox"/>	狀態	版本	來源	參照	修訂版本	觸發條件名稱	建立時間 ?	持續時間	
<input type="checkbox"/>	*	<a href="#">278345fb</a>	<a href="#">cloudrun-progression</a>	1.1	<a href="#">d42b1d3</a>	tag	2023/4/6 上午11:18	50 秒	<a href="#">⋮</a>
<input type="checkbox"/>	!	<a href="#">2771a724</a>	<a href="#">cloudrun-progression</a>	master	<a href="#">d42b1d3</a>	master	2023/4/6 上午11:10	2 分鐘 9 秒	<a href="#">⋮</a>
<input type="checkbox"/>	✓	<a href="#">083118be</a>	<a href="#">cloudrun-progression</a>	new-feature-1	<a href="#">d42b1d3</a>	branch	2023/4/6 上午11:00	1 分鐘 48 秒	<a href="#">⋮</a>
<input type="checkbox"/>	✓	<a href="#">c3e06722</a>	<a href="#">Google Cloud Storage</a>	-	-	-	2023/4/6 上午10:52	29 秒	<a href="#">⋮</a>

the revision is updated to indicate the prod tag and it is serving 100% of live traffic

≡ 篩選

篩選修訂版本

	名稱	流量	已部署 ↓	修訂版本網址 (標記) ?				動作
	hello-cloudrun-00003-heb	100%	8 分鐘前	<a href="#">canary</a>	<a href="#">sha-d42b1d3</a>	<a href="#">prod</a>		
	hello-cloudrun-00002-dey	0%	18 分鐘前	<a href="#">new-feature-1</a>				
	hello-cloudrun-00001-joy	0%	27 分鐘前					