

Creando u PIPELINE para Analitica de Video con :

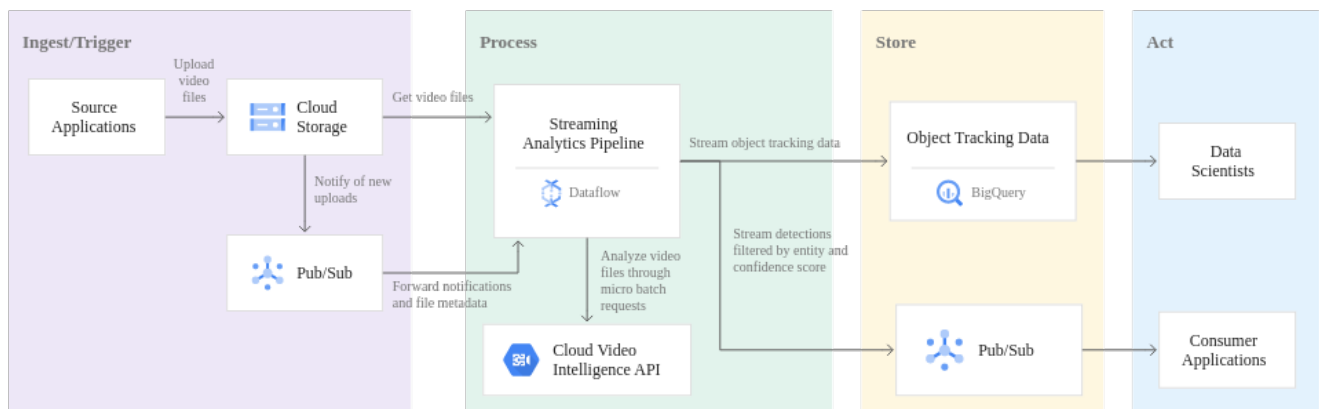
<https://cloud.google.com/architecture/building-a-streaming-video-analytics-pipeline>

https://cloud.google.com/video-intelligence/docs/people-detection#video_detect_person_gcs-python

<https://cloud.google.com/video-intelligence/docs/feature-person-detection>

- BigQuery
- Cloud Storage
- Dataflow
- Video Intelligence API
- Pub/Sub
- Cloud Build

Arquitectura de la solucion



Donde :

- Las aplicaciones cliente captura o suben los archivos de video de origen a un bucket de Cloud Storage.
- Para cada carga de archivos, el sistema notifica de forma automática al cliente publicando un mensaje **en Pub/Sub. (Es como Kafka / RabbitMQ)**

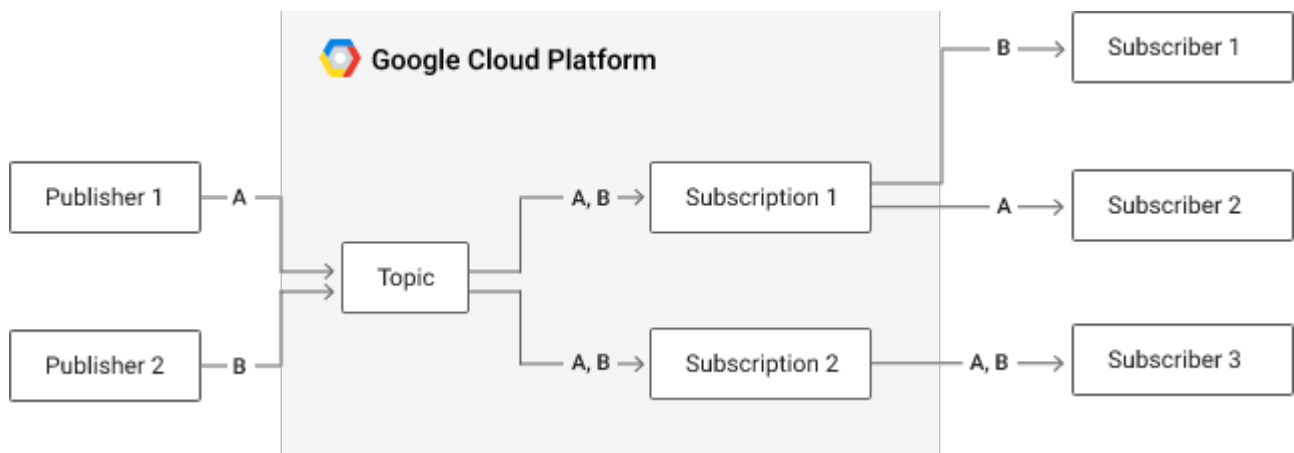
•Concepto:

Pub/Sub se usa para las canalizaciones de integración de datos y estadísticas de transmisión a fin de transferir y distribuir datos. Es igual de efectivo como un middleware orientado a la mensajería para la integración de servicios o como una cola a fin de paralelizar las tareas.

Pub/Sub te permite crear sistemas de productores y consumidores de eventos, llamados editores y suscriptores. Los publicadores se comunican con los suscriptores de forma asíncrona mediante la transmisión de eventos, en lugar de llamadas de procedimiento remoto (RPC) síncronas

donde usarlo :

- **Interacción del usuario y eventos del servidor de transferencia.**
- **Distribución de eventos en tiempo real**
- **Replicar datos entre bases de datos**
- **Procesamiento y flujos de trabajo paralelos**
- **Bus de eventos empresariales**
- **Transmisión de datos desde aplicaciones, servicios o dispositivos de IoT.**
- **Actualización de cachés distribuidas**
- **Balanceo de cargas para la confiabilidad**

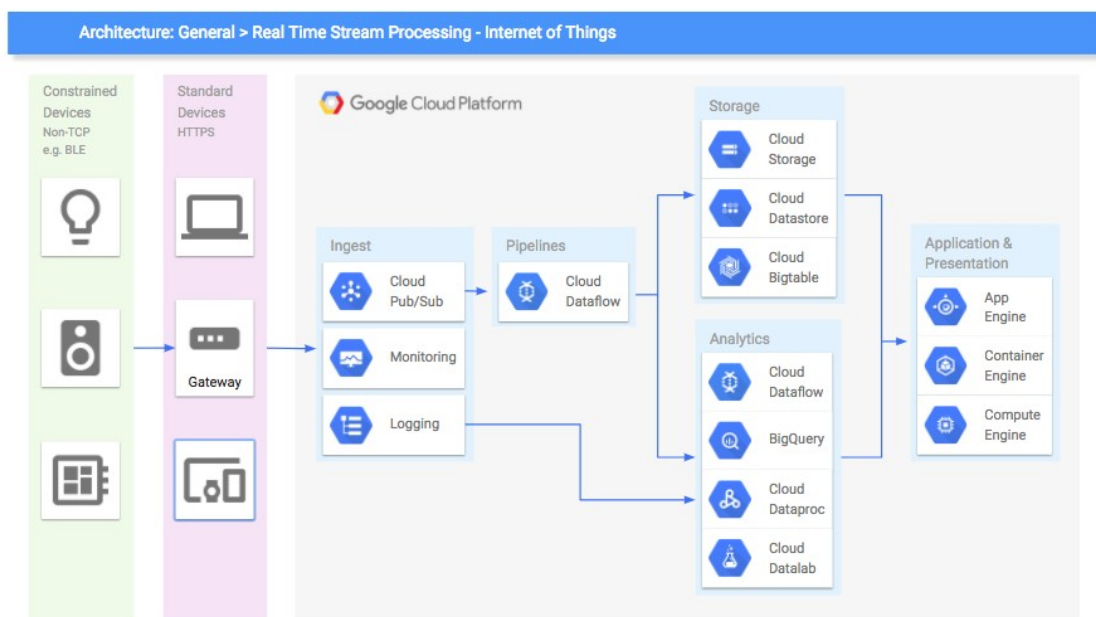


Que es DATAFLOW ? (es como Spark)

Procesamiento de datos de streaming y por lotes unificado, rápido, rentable y sin servidor

- Servicio totalmente gestionado de procesamiento de datos
- Aprovisionamiento y gestión automáticos de recursos de procesamiento
- Autoescalado horizontal de recursos de trabajadores para sacarles el máximo partido
- Innovación en software libre motivada por la comunidad mediante el SDK de Apache Beam
- Procesamiento exacto, fiable y uniforme
- analíticas de datos de streaming con rapidez . Dataflow permite desarrollar flujos de procesamiento de datos de streaming con menos latencia de datos de manera rápida y más sencilla.
-

General > Real Time Stream Processing IoT



- Para cada notificación nueva, la canalización de **Dataflow** realiza las siguientes acciones:
- Lee los metadatos del archivo del mensaje de Pub/Sub.
- Carga el archivo en la memoria y lo divide en segmentos de 5 segundos.
- Envía cada segmento a la API de Video Intelligence, que luego muestra anotaciones.
- Almacena todas las anotaciones en una tabla de **BigQuery**.
- Envía mensajes de salida a **Pub/Sub** para los segmentos de video que contienen anotaciones significativas (por ejemplo, todos los segmentos que contienen personas), como se especifica en los parámetros personalizados de la canalización.
- Una aplicación de consumidor lee los mensajes de salida de **Pub/Sub** para mostrar las anotaciones filtradas.

Primero Habilitamos los siguientes servicios :

```
gcloud services enable dataflow.googleapis.com \  
containerregistry.googleapis.com \  
videointelligence.googleapis.com
```

Listado de Variable de trabajo

```
gcloud auth list
```

```
gcloud config list project
```

```
spideroriol@cloudshell:~ (my-project-91798-video-ai)$ gcloud auth list  
Credentialed Accounts  
  
ACTIVE: *  
ACCOUNT: spideroriol@gmail.com  
  
To set the active account, run:  
  $ gcloud config set account `ACCOUNT`  
  
spideroriol@cloudshell:~ (my-project-91798-video-ai)$
```

```
spideroriol@cloudshell:~ (my-project-91798-video-ai)$ gcloud config list project  
[core]  
project = my-project-91798-video-ai  
  
Your active configuration is: [cloudshell-19199]  
spideroriol@cloudshell:~ (my-project-91798-video-ai)$
```

Definiendo de Variable de trabajo

```
export REGION=us-central1
export PROJECT=$(gcloud config get-value project)
export GCS_NOTIFICATION_TOPIC="gcs-notification-topic"
export GCS_NOTIFICATION_SUBSCRIPTION="gcs-notification-subscription"
export VIDEO_CLIPS_BUCKET=${PROJECT}_videos
export BIGQUERY_DATASET="video_analytics"
export OBJECT_DETECTION_TOPIC="object-detection-topic"
export OBJECT_DETECTION_SUBSCRIPTION="object-detection-subscription"
export ERROR_TOPIC="error-topic"
export ERROR_SUBSCRIPTION="error-subscription"
export DATAFLOW_TEMPLATE_BUCKET=${PROJECT}_dataflow_template_config
```

Clonamos un repositorio de Google con los templates

```
git clone https://github.com/GoogleCloudPlatform/dataflow-video-analytics.git
```

```
spideroriol@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$ ls -l
total 76
-rw-r--r-- 1 spideroriol spideroriol  4325 Mar 20 18:53 build.gradle
-rw-r--r-- 1 spideroriol spideroriol    27 Mar 20 18:53 _config.yml
-rw-r--r-- 1 spideroriol spideroriol  1100 Mar 20 18:53 CONTRIBUTING.md
drwxr-xr-x 2 spideroriol spideroriol 4096 Mar 20 18:53 diagram
drwxr-xr-x 3 spideroriol spideroriol 4096 Mar 20 18:53 gradle
-rwxr-xr-x 1 spideroriol spideroriol  5764 Mar 20 18:53 gradlew
-rw-r--r-- 1 spideroriol spideroriol  3056 Mar 20 18:53 gradlew.bat
-rw-r--r-- 1 spideroriol spideroriol 11307 Mar 20 18:53 LICENSE
-rw-r--r-- 1 spideroriol spideroriol  1683 Mar 20 18:53 pull-detections.py
-rw-r--r-- 1 spideroriol spideroriol 10038 Mar 20 18:53 README.md
drwxr-xr-x 2 spideroriol spideroriol 4096 Mar 20 18:53 scripts
-rw-r--r-- 1 spideroriol spideroriol   373 Mar 20 18:53 settings.gradle
drwxr-xr-x 3 spideroriol spideroriol 4096 Mar 20 18:53 src
```

I PARTE

PUB/SUB

Crea una notificación de Pub/

```
gcloud pubsub topics create ${GCS_NOTIFICATION_TOPIC}
```

Crea una suscripción de Pub la el TOPICO creado

```
gcloud pubsub subscriptions create ${GCS_NOTIFICATION_SUBSCRIPTION} \
--topic=${GCS_NOTIFICATION_TOPIC}
```

Se crea un bucket para almacenar los clips de video de entrada

```
gsutil mb -c standard -l ${REGION} gs://${VIDEO_CLIPS_BUCKET}
```

```
spideroriol@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$ gsutil mb -c standard -l ${REGION} gs://${VIDEO_CLIPS_BUCKET}
Creating gs://my-project-91798-video-ai_videos/...
spideroriol@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$ gsutil ls
gs://my-project-91798-video-ai_videos/
gs://storage_video01/
spideroriol@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$
```

Cree una notificación de Pub/Sub para el bucket

```
gsutil notification create -t ${GCS_NOTIFICATION_TOPIC} \
-f json gs://${VIDEO_CLIPS_BUCKET}
```

BIGQUERY

Crea un conjunto de datos y una tabla de BigQuery

En Cloud Shell, crea un conjunto de datos de BigQuery:

```
bq mk -d --location=US ${BIGQUERY_DATASET}
```

Crea una tabla de BigQuery:

```
bq mk -t \
--schema src/main/resources/table_schema.json \
--description "object_tracking_data" \
${PROJECT}:${BIGQUERY_DATASET}.object_tracking_analysis
```

```
spideroriol@cloudshell:~/dataflow-video-analytics/src/main/resources (my-project-91798-video-ai)$ cat table_schema.json
```

```
[
  {
    "mode": "REQUIRED",
    "name": "file_name",
    "type": "STRING"
  },
  {
    "mode": "REQUIRED",
    "name": "entity",
    "type": "STRING"
  },
  {
    "fields": [
      {
        "name": "processing_timestamp",
        "type": "STRING"
      },
      {
        "name": "timeOffset",
        "type": "STRING"
      },
      {
        "name": "confidence",
        "type": "FLOAT"
      },
      {
        "name": "left",
        "type": "FLOAT"
      },
      {
        "name": "top",
        "type": "FLOAT"
      },
      {
        "name": "right",
        "type": "FLOAT"
      },
      {
        "name": "bottom",
        "type": "FLOAT"
      }
    ],
    "mode": "REPEATED",
    "name": "frame_data",
    "type": "RECORD"
  }
]
```


II PARTE

Crea un tema y una suscripción de Pub/Sub para los resultados filtrados

```
gcloud pubsub topics create ${OBJECT_DETECTION_TOPIC}
```

Crea una suscripción a Pub/Sub:

```
gcloud pubsub subscriptions create ${OBJECT_DETECTION_SUBSCRIPTION} \
--topic=${OBJECT_DETECTION_TOPIC}
```

Crea un tema y una suscripción de Pub/Sub para detectar errores

```
gcloud pubsub topics create ${ERROR_TOPIC}
```

Crea una suscripción a Pub/Sub:

```
gcloud pubsub subscriptions create ${ERROR_SUBSCRIPTION} \
--topic=${ERROR_TOPIC}
```

III PARTE

Ejecuta el trabajo de canalización de Dataflow

En Cloud Shell, compila el código de la canalización de Apache Beam

```
gradle build
```

Crea una imagen de Docker para la plantilla de Dataflow Flex

```
gcloud auth configure-docker
gradle jib \
  --image=gcr.io/${PROJECT}/dataflow-video-analytics:latest
```

```
Built and pushed image as gcr.io/my-project-91798-video-ai/dataflow-video-analytics
Executing tasks:
[=====] 100.0% complete

Deprecated Gradle features were used in this build, making it incompatible with Gradle 7.0.
Use '--warning-mode all' to show the individual deprecation warnings.
See https://docs.gradle.org/6.0/userguide/command_line_interface.html#sec:command_line_warnings

BUILD SUCCESSFUL in 1m 19s
3 actionable tasks: 3 executed
spideroriol@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$
```

Crea un bucket de Cloud Storage para almacenar la plantilla de Dataflow Flex:

```
gsutil mb -c standard -l ${REGION} \
gs://${DATAFLOW_TEMPLATE_BUCKET}
```

Sube el archivo de configuración JSON de la plantilla al bucket:

```
cat << EOF | gsutil cp -
gs://${DATAFLOW_TEMPLATE_BUCKET}/dynamic_template_video_analytics.json
{
  "image":
    "gcr.io/${PROJECT}/dataflow-video-analytics:latest",
  "sdk_info": {"language": "JAVA"}
}
EOF
```

Ejecuta la canalización de Dataflow

```
gcloud beta dataflow flex-template run "video-analysis-pipeline" \
--project=${PROJECT} \
--region=${REGION} \
--template-file-gcs-location=gs://${DATAFLOW_TEMPLATE_BUCKET}/
dynamic_template_video_analytics.json \
--
parameters=^^autoscalingAlgorithm="THROUGHPUT_BASED"~numWorkers=5~maxNumWorkers=5~
workerMachineType=n1-highmem-4\
~inputNotificationSubscription=projects/${PROJECT}/subscriptions/$
{GCS_NOTIFICATION_SUBSCRIPTION}\
~outputTopic=projects/${PROJECT}/topics/${OBJECT_DETECTION_TOPIC}\
~errorTopic=projects/${PROJECT}/topics/${ERROR_TOPIC}\
~features=OBJECT_TRACKING~entities=window, person~confidenceThreshold=0.9~windowInte
rval=1\
~tableReference=${PROJECT}:${BIGQUERY_DATASET}.object_tracking_analysis\
~streaming=true
```

```
~streaming=true
job:
  createTime: '2022-03-20T19:58:35.283518Z'
  currentStateTime: '1970-01-01T00:00:00Z'
  id: 2022-03-20_12_58_33-9217576768572600659
  location: us-central1
  name: video-analysis-pipeline
  projectId: my-project-91798-video-ai
  startTime: '2022-03-20T19:58:35.283518Z'
spideroriorl@cloudshell:~/dataflow-video-analytics (my-project-91798-video-ai)$
```

Nos Valos a Dataflow - JOBS

Your free trial expires in less than 3 days: Upgrade now for seamless service.

LEARN MOREUPGRADE

Google Cloud PlatformMy Project 91798 VIDEO AI

SearchProducts, resources, docs (/)

Beam Summit

Join the Apache Beam community July 18th-20th for Beam Summit 2022 to learn more about Beam and share your expertise.

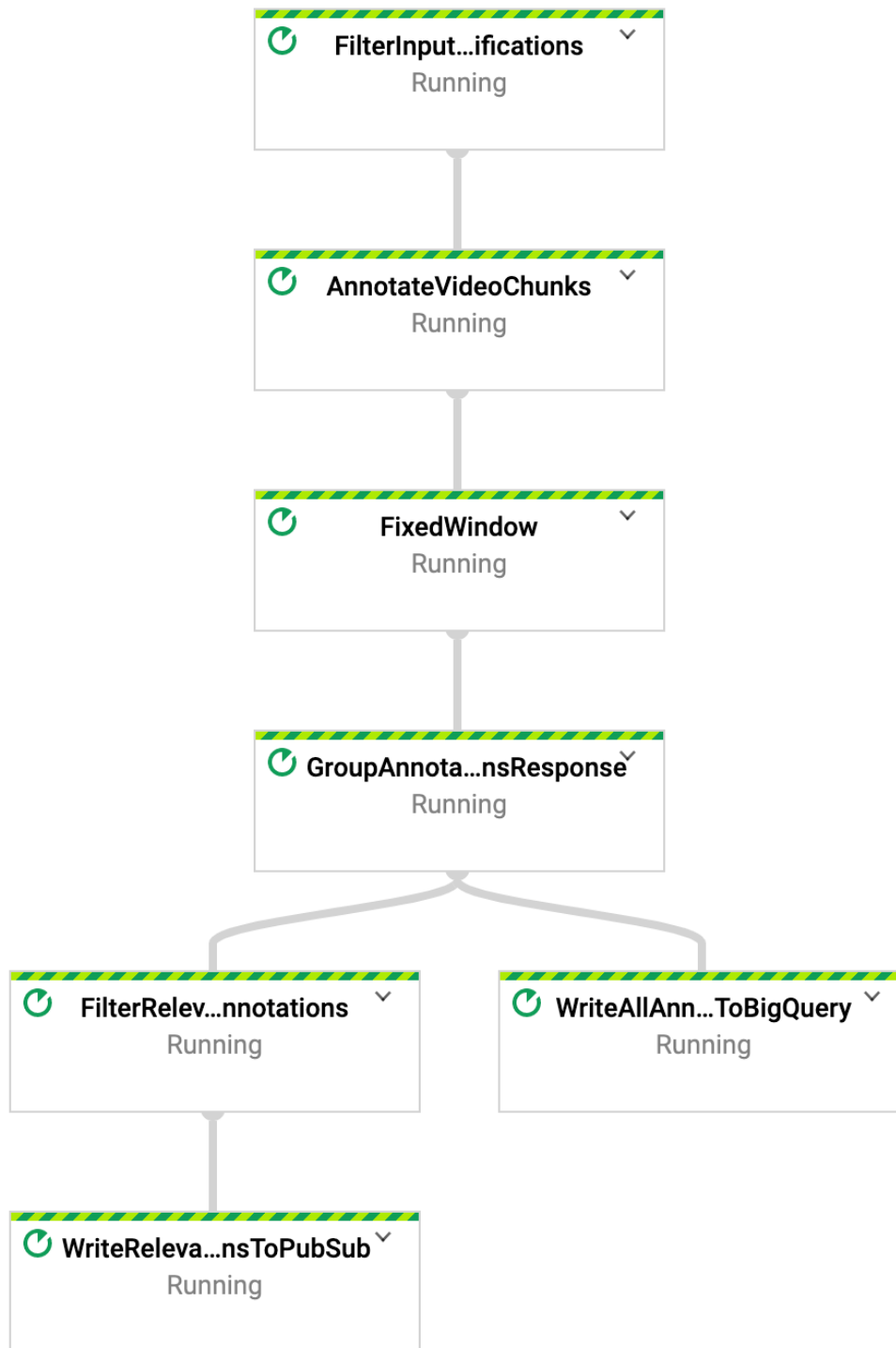
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JobsCREATE JOB FROM TEMPLATE

ENABLE SORTINGREFRESH

RunningFilter jobs

Name	Type	End time	Elapsed time	Start time	Status	SDK version	ID	Region
video-analysis-pipeline				Mar 20, 2022, 2:58:35 PM	Queued		2022-03-20_12_58_33-9217576768572600659	us-central1



La canalización se está ejecutando y esperando recibir las notificaciones de entrada de Pub/Sub. Aún no se procesan datos.

IV PARTE Sube archivos de video de muestra

1. En Cloud Shell, instala `ffmpeg` :

```
sudo apt update
sudo apt install -y ffmpeg
```

2. Descarga los archivos de video originales:

```
gsutil -m cp gs://dataflow-video-analytics-test-clips/*.mp4 .
```

3. Divide los archivos originales en segmentos de 5 segundos:

```
for file in *.mp4
do
ffmpeg -i "$file" -codec:a aac -ac 2 -ar 48k -c copy \
-movflags faststart -f segment -segment_format mpegts \
-segment_time 5 "${file%.*}~"%1d.mp4
done
```

```
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-2.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-3.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-4.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-5.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-6.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-7.mp4' for writing
[segment @ 0x55ca9957c780] Opening 'gbikes_dinosaur-8.mp4' for writing
Frame= 1282 fps=0.0 q=-1.0 Lsize=N/A time=00:00:42.98 bitrate=N/A speed= 348x
video:62557kB audio:504kB subtitle:0kB other streams:0kB global headers:0kB muxing overhead: unknown
spideroriol@cloudshell:~ (my-project-91798-video-ai)$ ls
cat-0.mp4  cat.mp4          gbikes_dinosaur-0.mp4  gbikes_dinosaur-3.mp4  gbikes_dinosaur-6.mp4  gbikes_dinosaur.mp4  video-intelligence
cat-1.mp4  data.csv         gbikes_dinosaur-1.mp4  gbikes_dinosaur-4.mp4  gbikes_dinosaur-7.mp4  README-cloudshell.txt
cat-2.mp4  dataflow-video-analytics  gbikes_dinosaur-2.mp4  gbikes_dinosaur-5.mp4  gbikes_dinosaur-8.mp4  venv
spideroriol@cloudshell:~ (my-project-91798-video-ai)$
```

Sube los segmentos de video a Cloud Storage:

```
gsutil -m cp *~*.mp4 gs://${VIDEO_CLIPS_BUCKET}/
```

NOTA

Cuando **gsutil** sube cada segmento de video, Cloud Storage :

- envía automáticamente una notificación a **Pub/Sub**.
- Pub/Sub reenvía la notificación al trabajo de **Dataflow**.
- En la página web del trabajo de **Dataflow**, puedes ver que el trabajo procesó los archivos de video y recopiló las anotaciones de la **API de Video Intelligence** para esos archivos.

V PARTE - BIGQUERY

```
SELECT file_name, entity
FROM `video_analytics.object_tracking_analysis`
WHERE entity like 'bicycle%'
OR entity like 'person%'
OR entity like 'cat%'
GROUP by file_name, entity
```

	file_name	entity
1	gbikes_dinosaur.mp4	bicycle
2	cat.mp4	cat
3	gbikes_dinosaur.mp4	bicycle wheel
4	gbikes_dinosaur.mp4	person

3. Ejecuta la siguiente consulta para mostrar todos los objetos detectados en los clips de video y los niveles de confianza asociados con la detección:

```
SELECT file_name, entity, max(fd.confidence) AS max_confidence
FROM `video_analytics.object_tracking_analysis` ,
UNNEST(frame_data) AS fd
GROUP by file_name, entity
ORDER by file_name, entity, max_confidence DESC
```

ow	file_name	entity	max_confidence
1	cat.mp4	cat	0.86749231815338135
2	gbikes_dinosaur.mp4	bench	0.58585751056671143
3	gbikes_dinosaur.mp4	bicycle	0.73626726865768433
4	gbikes_dinosaur.mp4	bicycle wheel	0.93204206228256226
5	gbikes_dinosaur.mp4	building	0.57778167724609375
6	gbikes_dinosaur.mp4	chair	0.71668219566345215
7	gbikes_dinosaur.mp4	dinosaur	0.85336136817932129
8	gbikes_dinosaur.mp4	footwear	0.53572624921798706
9	gbikes_dinosaur.mp4	house	0.50764185190200806
10	gbikes_dinosaur.mp4	person	0.91313296556472778
11	gbikes_dinosaur.mp4	sculpture	0.80446499586105347
12	gbikes_dinosaur.mp4	shorts	0.5866851806640625
13	gbikes_dinosaur.mp4	tire	0.66517066955566406
14	gbikes_dinosaur.mp4	train	0.63094544410705566

Ejecuta la siguiente consulta para obtener las compensaciones de tiempo, las coordenadas del cuadro de límite y los objetos detectados en un archivo de video:

```
SELECT entity, fd.*
FROM `video_analytics.object_tracking_analysis`,
UNNEST(frame_data) AS fd
WHERE file_name LIKE 'gbike%.mp4'
ORDER BY timeOffset
```

w	entity	processing_timestamp	timeOffset	confidence	left	top	right	bottom
1	bicycle	2022-03-20 20:09:19.561000	0.0	0.59062814712524414	0.4034018	0.15256836	0.69659823	0.7057067
2	bicycle wheel	2022-03-20 20:09:19.556000	0.0	0.7534714937210083	0.41102248	0.4479253	0.56480426	0.75166166
3	bicycle wheel	2022-03-20 20:09:19.559000	0.0	0.71192306280136108	0.54492337	0.3912022	0.68621135	0.71723974
4	tire	2022-03-20 20:09:19.560000	0.0	0.65913408994674683	0.16820216	0.54425687	0.32418936	0.9403182
5	tire	2022-03-20 20:09:19.560000	0.0	0.62130814790725708	0.003933981	0.3694937	0.117960714	0.76988363
6	bicycle	2022-03-20 20:09:19.579000	0.1	0.59062814712524414	0.4031254	0.15000394	0.6960945	0.7027823
7	bicycle wheel	2022-03-20 20:09:19.577000	0.1	0.7534714937210083	0.41015756	0.4458365	0.56328356	0.7486158
8	bicycle wheel	2022-03-20 20:09:19.578000	0.1	0.71192306280136108	0.5437518	0.38750565	0.6843778	0.71250725
9	tire	2022-03-20 20:09:19.578000	0.1	0.65913408994674683	0.16952908	0.5527643	0.31797844	0.9291841
10	tire	2022-03-20 20:09:19.579000	0.1	0.62130814790725708	0.0007861784	0.35973758	0.11952875	0.77915204
11	bicycle	2022-03-20 20:09:19.603000	0.2	0.59062814712524414	0.4080667	0.15741487	0.68814486	0.6860029
12	bicycle wheel	2022-03-20 20:09:19.600000	0.2	0.7534714937210083	0.41015452	0.44048452	0.5632796	0.7432624
13	bicycle wheel	2022-03-20 20:09:19.601000	0.2	0.71192306280136108	0.54224455	0.38348514	0.6828697	0.70848525
14	tire	2022-03-20 20:09:19.602000	0.2	0.65913408994674683	0.16877338	0.54875207	0.31721187	0.9251435
15	tire	2022-03-20 20:09:19.602000	0.2	0.62130814790725708	3.1638006e-05	0.34774378	0.11878101	0.7671857
16	bicycle	2022-03-20 20:09:19.624000	0.3	0.59062814712524414	0.40832192	0.15405133	0.68732506	0.6806221
17	bicycle wheel	2022-03-20 20:09:19.622000	0.3	0.7534714937210083	0.40886548	0.43597716	0.5619905	0.7387549
18	bicycle wheel	2022-03-20 20:09:19.622000	0.3	0.71192306280136108	0.5406548	0.37924585	0.6812798	0.7042458
19	tire	2022-03-20 20:09:19.623000	0.3	0.65913408994674683	0.1660389	0.54221874	0.3144765	0.91860783
20	tire	2022-03-20 20:09:19.623000	0.3	0.62130814790725708	0.00013423576	0.3530335	0.11387438	0.75466514
21	bicycle	2022-03-20 20:09:19.661000	0.4	0.59062814712524414	0.40775508	0.14991154	0.68666947	0.67631567
22	bicycle wheel	2022-03-20 20:09:19.659000	0.4	0.75223219394683838	0.41248083	0.44228667	0.5556548	0.7304086
23	bicycle wheel	2022-03-20 20:09:19.660000	0.4	0.71852326393127441	0.5390674	0.37905973	0.6837034	0.6889242
24	tire	2022-03-20 20:09:19.660000	0.4	0.65392041206359863	0.14796299	0.4766562	0.3144405	0.90441537
25	tire	2022-03-20 20:09:19.660000	0.4	0.62284284830093384	0.015212158	0.36214855	0.11572887	0.7261003
26	tire	2022-03-20 20:09:19.661000	0.4	0.59460932016372681	0.38246545	0.30786604	0.4869209	0.5010258
27	bicycle	2022-03-20 20:09:19.701000	0.5	0.59062814712524414	0.4080338	0.14574242	0.6869407	0.67213255
28	bicycle wheel	2022-03-20 20:09:19.700000	0.5	0.75140595436096191	0.41226032	0.4410909	0.55452925	0.727368
29	bicycle wheel	2022-03-20 20:09:19.700000	0.5	0.72292345762252808	0.5398735	0.37460747	0.6844134	0.68306726
30	tire	2022-03-20 20:09:19.700000	0.5	0.6504446268081665	0.14392571	0.45547235	0.31176454	0.8870521
31	tire	2022-03-20 20:09:19.701000	0.5	0.62386602163314819	0.02243729	0.36699522	0.11745444	0.7117471
32	tire	2022-03-20 20:09:19.701000	0.5	0.59460932016372681	0.38281196	0.3055591	0.48671907	0.49861482
33	bicycle	2022-03-20 20:09:19.745000	0.6	0.59062814712524414	0.40823737	0.14239833	0.6871437	0.66878736
34	bicycle wheel	2022-03-20 20:09:19.743000	0.6	0.75081580877304077	0.4115864	0.43707752	0.55378073	0.7232026
35	bicycle wheel	2022-03-20 20:09:19.744000	0.6	0.72606641054153442	0.54028434	0.37013727	0.6848163	0.6784812
36	tire	2022-03-20 20:09:19.744000	0.6	0.64796191453933716	0.13811554	0.43544927	0.31394485	0.8877176
37	tire	2022-03-20 20:09:19.744000	0.6	0.62459683418273926	0.021817965	0.35423782	0.120689884	0.71272427
38	tire	2022-03-20 20:09:19.745000	0.6	0.59460932016372681	0.38281256	0.30154416	0.4867189	0.49459973
39	bicycle	2022-03-20 20:09:19.785000	0.7	0.59062814712524414	0.40839088	0.13949041	0.6872971	0.6658793
40	bicycle wheel	2022-03-20 20:09:19.783000	0.7	0.7503732442855835	0.4117425	0.43356672	0.5539306	0.719679
41	bicycle wheel	2022-03-20 20:09:19.784000	0.7	0.7284235954284668	0.5405212	0.36750323	0.6850525	0.67583746
42	tire	2022-03-20 20:09:19.784000	0.7	0.64609992504119873	0.13807198	0.42914525	0.31457207	0.88315034
43	tire	2022-03-20 20:09:19.785000	0.7	0.62514495849609375	0.025124053	0.35718518	0.12002423	0.7015523
44	tire	2022-03-20 20:09:19.785000	0.7	0.59460932016372681	0.38345718	0.29844964	0.48736346	0.4915052
45	bicycle wheel	2022-03-20 20:09:19.848000	0.8	0.7503732442855835	0.41128904	0.4302369	0.5534771	0.7163492
46	bicycle wheel	2022-03-20 20:09:19.848000	0.8	0.74527448415756226	0.54500616	0.36141402	0.68185484	0.67292786
47	bicycle wheel	2022-03-20 20:09:19.849000	0.8	0.55888181924819946	0.015016886	0.8832664	0.22182398	0.99439746
48	tire	2022-03-20 20:09:19.848000	0.8	0.64246129989624023	0.14971313	0.43874398	0.3169887	0.8814454
49	tire	2022-03-20 20:09:19.849000	0.8	0.6229828000686646	0.009338304	0.33131048	0.12854198	0.7313317
50	tire	2022-03-20 20:09:19.849000	0.8	0.59460932016372681	0.38422015	0.29560477	0.4881264	0.48866034