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2348521

1. Create new project and enable cloud video intelligence API

The image consists of two screenshots from the Google Cloud console. The top screenshot shows the 'Manage resources' page for a project named '2348521-lab7'. A table lists resources, including 'science.christuniversity.in' and '2348521-lab7'. A notification at the bottom states 'Now viewing project "2348521-lab7" in organization "science.christuniversity.in"'. The bottom screenshot shows the 'Cloud Video Intelligence API' product details page. It includes a description: 'Detects objects, explicit content, and scene changes in videos. It also specifies the region for...'. A 'TRY THIS API' button is visible. Below the description, there are tabs for 'OVERVIEW', 'PRICING', 'DOCUMENTATION', and 'RELATED PRODUCTS'. The 'OVERVIEW' tab is active, showing 'Additional details' such as 'Type: SaaS & APIs', 'Last product update: 7/22/22', 'Category: Machine learning, Google Enterprise APIs', and 'Service name: videointelligence.googleapis.com'. A similar notification is present at the bottom of this screenshot.

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DISMISS START FREE

Google Cloud project

Manage resources CREATE PROJECT CREATE FOLDER MOVE DELETE TAGS

Resources

Name	ID	Last accessed	Status	Charges	Carbon emissions	Unattenuated
science.christuniversity.in	959021032546	August 14, 2024				
2348521-lab7	lab7-432504	August 14, 2024		\$0.00		

RESOURCES PENDING DELETION

No resource selected

PERMISSIONS LABELS

Please select at least one resource.

Now viewing project "2348521-lab7" in organization "science.christuniversity.in"

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DISMISS START FREE

Google Cloud 2348521-lab7

Product details

Cloud Video Intelligence API

Google Enterprise API

Detects objects, explicit content, and scene changes in videos. It also specifies the region for...

TRY THIS API

OVERVIEW PRICING DOCUMENTATION RELATED PRODUCTS

Overview

Detects objects, explicit content, and scene changes in videos. It also specifies the region for annotation and transcribes speech to text. Supports both asynchronous API and streaming API.

Additional details

Type: [SaaS & APIs](#)
Last product update: 7/22/22
Category: [Machine learning](#), [Google Enterprise APIs](#)
Service name: [videointelligence.googleapis.com](#)

Now viewing project "2348521-lab7" in organization "science.christuniversity.in"

Pricing

2. Create a service account.

console.cloud.google.com/iam-admin/serviceaccounts?authuser=0&project=lab7-432504&supportedpurview=project

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DISMISS START FREE

Google Cloud 2348521-lab7 api Search

IAM & Admin Service accounts + CREATE SERVICE ACCOUNT DELETE MANAGE ACCESS REFRESH LEARN

IAM PAM Principal Access Boundary Identity & Organization Policy Troubleshooter Policy Analyzer NEW Organization Policies Service Accounts Workload Identity Federat... Workforce Identity Federa... Labels Tags Manage Resources Release Notes

Service accounts for project "2348521-lab7"

A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google. [Learn more about service accounts](#).

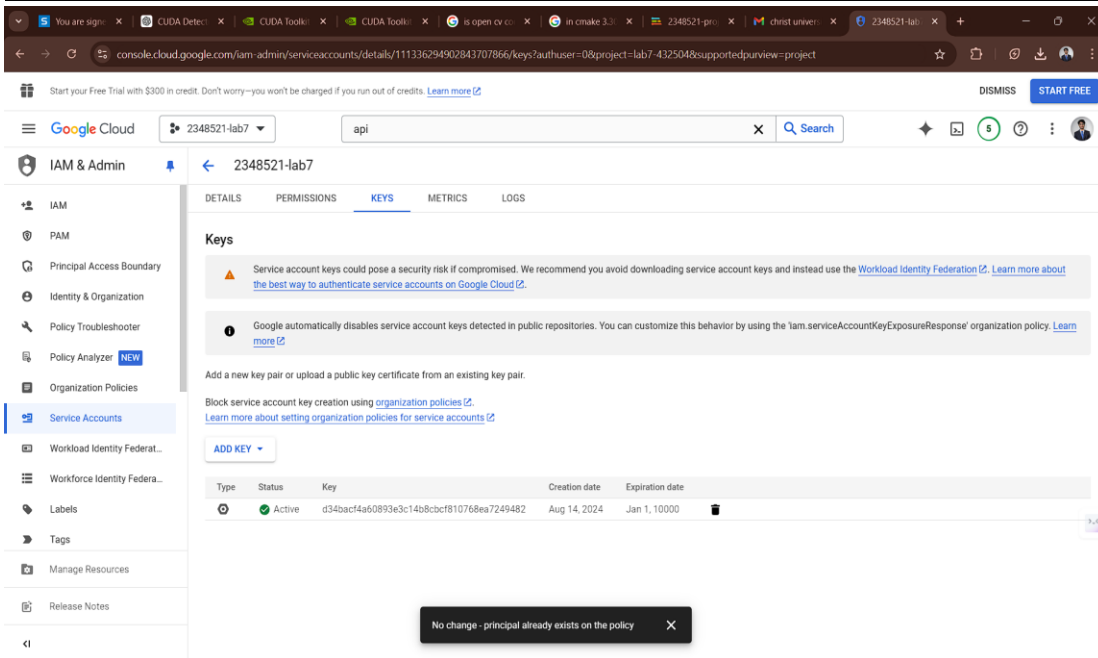
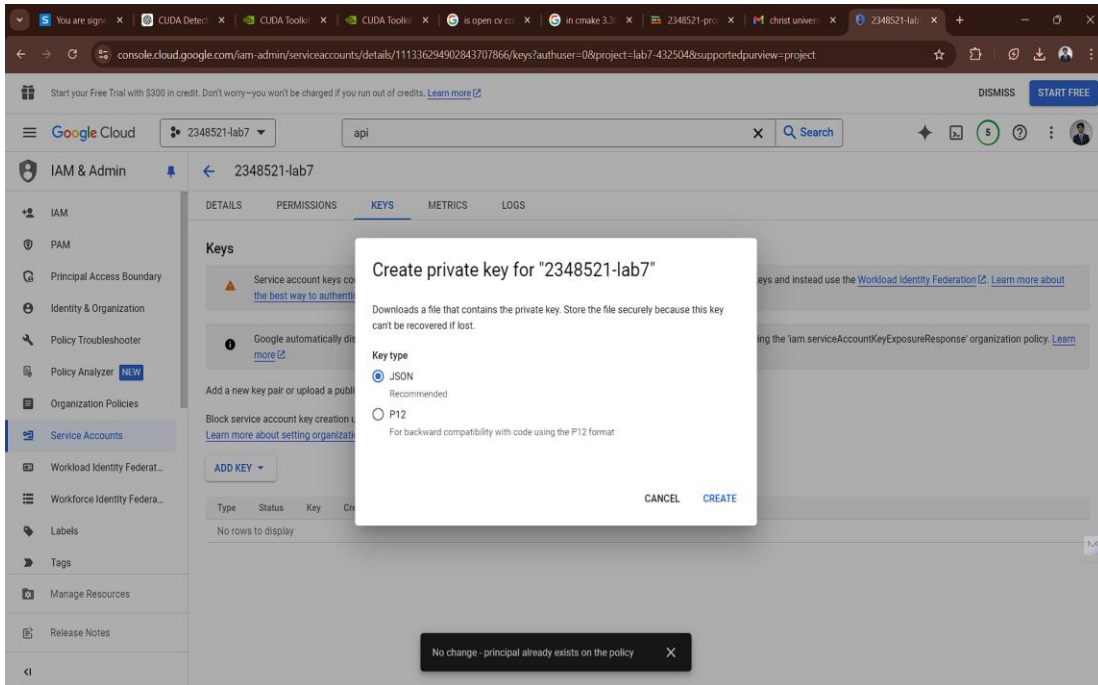
Organization policies can be used to secure service accounts and block risky service account features, such as automatic IAM Grants, key creation/upload, or the creation of service accounts entirely. [Learn more about service account organization policies](#).

Filter Enter property name or value

<input type="checkbox"/>	Email	Status	Name	Description	Key ID	Key creation date	OAuth 2.0 Client ID	Actions
<input type="checkbox"/>	id-348521-lab7@lab7-432504.iam.gserviceaccount.com	Enabled	2348521-lab7		No keys		111336294902843707866	

No change - principal already exists on the policy

3. Create a JSON key.



4. Initialize google cloud, select account and then select project.

```
Last login: Wed Aug 7 09:05:18 on ttys000
(base) saninzulphi@Sanins-MacBook-Pro ~ % ./google-cloud-sdk/bin/gcloud init
zsh: no such file or directory: ./google-cloud-sdk/bin/gcloud
(base) saninzulphi@Sanins-MacBook-Pro ~ % cd Downloads
(base) saninzulphi@Sanins-MacBook-Pro Downloads % ./google-cloud-sdk/bin/gcloud init
Welcome! This command will take you through the configuration of gcloud.

Settings from your current configuration [default] are:
core:
  account: sanin.zulphi@msam.christuniversity.in
  disable_usage_reporting: 'True'
  project: audiototext-431802

Pick configuration to use:
[1] Re-initialize this configuration [default] with new settings
[2] Create a new configuration
Please enter your numeric choice: 1

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

Choose the account you want to use for this configuration.
To use a federated user account, exit this command and sign in to the gcloud CLI with your login configuration file, then run this command again.

Select an account:
[1] sanin.zulphi@msam.christuniversity.in
[2] Sign in with a new Google Account
[3] Skip this step
Please enter your numeric choice: 1

You are signed in as: [sanin.zulphi@msam.christuniversity.in].

Pick cloud project to use:
[1] lab7-432117
[2] sanjaysfirstproject
[3] Enter a project ID
[4] Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [lab7-432117].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use sanin.zulphi@msam.christuniversity.in by default
* Commands will reference project 'lab7-432117' by default
Run 'gcloud help config' to learn how to change individual settings
```

5. Creating a bucket storage.

```
project: audiototext-431802

Pick configuration to use:
[1] Re-initialize this configuration [default] with new settings
[2] Create a new configuration
Please enter your numeric choice: 1

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

Choose the account you want to use for this configuration.
To use a federated user account, exit this command and sign in to the gcloud CLI with your login configuration file, then run this command again.

Select an account:
[1] sanin.zulphi@msam.christuniversity.in
[2] Sign in with a new Google Account
[3] Skip this step
Please enter your numeric choice: 1

You are signed in as: [sanin.zulphi@msam.christuniversity.in].

Pick cloud project to use:
[1] lab7-432117
[2] sanjaysfirstproject
[3] Enter a project ID
[4] Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [lab7-432117].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use sanin.zulphi@msam.christuniversity.in by default
* Commands will reference project 'lab7-432117' by default
Run 'gcloud help config' to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run 'gcloud topic configurations' to learn more.

Some things to try next:

* Run 'gcloud --help' to see the Cloud Platform services you can interact with. And run 'gcloud help COMMAND' to get help on any gcloud command.
* Run 'gcloud topic --help' to learn about advanced features of the CLI like arg files and output formatting
* Run 'gcloud cheat-sheet' to see a roster of go-to 'gcloud' commands.
(base) saninzulphi@Sanins-MacBook-Pro Downloads % gsutil mb gs://bucket72348551
Creating gs://bucket72348551/...
(base) saninzulphi@Sanins-MacBook-Pro Downloads % █
```

6. Uploading sample video to the bucket storage.

```
(2) Create a new configuration
Please enter your numeric choice: 1

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

Choose the account you want to use for this configuration.
To use a federated user account, exit this command and sign in to the gcloud CLI with your login configuration file, then run this command again.

Select an account:
(1) sanin.rulphi@san.christuniversity.in
(2) Sign in with a new Google Account
(3) Skip this step
Please enter your numeric choice: 1

You are signed in as: [sanin.rulphi@san.christuniversity.in].

Pick cloud project to use:
(1) lab7-432117
(2) sanjayfirstproject
(3) Enter a project ID
(4) Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [lab7-432117].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use sanin.rulphi@san.christuniversity.in by default
* Commands will reference project 'lab7-432117' by default
Run 'gcloud help config' to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run 'gcloud topic configurations' to learn more.

Some things to try next:

* Run 'gcloud --help' to see the Cloud Platform services you can interact with. And run 'gcloud help COMMAND' to get help on any gcloud command.
* Run 'gcloud topic --help' to learn about advanced features of the CLI like arg files and output formatting
* Run 'gcloud cheat-sheet' to see a roster of go-to 'gcloud' commands.
(base) saninrulphi@sanin-MacBook-Pro Downloads % gsutil mb gs://bucket72348551
Creating gs://bucket72348551/.
(base) saninrulphi@sanin-MacBook-Pro Downloads % gsutil cp /Users/saninrulphi/Downloads/video7.mp4 gs://bucket72348551/video.mp4
Copying file:///Users/saninrulphi/Downloads/video7.mp4 [Content-Type=video/mp4]...
[1] files all 42.8 MiB [42.8 MiB]
Operation completed over 1 objects/42.8 MiB.
(base) saninrulphi@sanin-MacBook-Pro Downloads %
```

7. In the console the bucket is created and video is uploaded.

The screenshot shows the Google Cloud Storage console interface. At the top, there's a navigation bar with the Google Cloud logo and a search bar. Below the navigation bar, the 'Cloud Storage' section is active, and the 'Bucket details' page for '2349521bucket' is displayed. The 'OBJECTS' tab is selected, showing a list of objects. A single object, 'video.mp4', is listed with a size of 450.3 MB, type 'video/mp4', and created on Aug 14, 2024, at 11:02:09 AM. The storage class is 'Standard'. At the bottom of the console, there are two status messages: '1 file successfully uploaded' and 'Uploads and 2349521-lab7 operations Complete'.

Name	Size	Type	Created	Storage class	Last mod
video.mp4	450.3 MB	video/mp4	Aug 14, 2024, 11:02:09 AM	Standard	Aug 14, 2024, 11:02:09 AM

8. Install python library needed for video intelligence.

```
https://console.developers.google.com/apis.page.

The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use sanin.zulphi@msan.christuniversity.in by default
* Commands will reference project 'lab7-43211' by default
Run 'gcloud help config' to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run 'gcloud topic configurations' to learn more.

Some things to try next:

* Run 'gcloud --help' to see the Cloud Platform services you can interact with. And run 'gcloud help COMMAND' to get help on any gcloud command.
* Run 'gcloud topic --help' to learn about advanced features of the CLI like arg files and output formatting
* Run 'gcloud cheat-sheet' to see a roster of go-to 'gcloud' commands.
(base) sanin@sanin-zulphi:~/Downloads$ gsutil mb gs://bucket72348551/...
Creating gs://bucket72348551/...
(base) sanin@sanin-zulphi:~/Downloads$ gsutil cp /Users/sanin@sanin-zulphi:~/Downloads/video7.mp4 gs://bucket72348551/video.mp4
Copying file:///Users/sanin@sanin-zulphi:~/Downloads/video7.mp4 [Content-Type=video/mp4]...
\ 1 file(s) 42.8 MiB/ 42.8 MiB
Operation completed over 1 objects/42.8 MiB.
(base) sanin@sanin-zulphi:~/Downloads$ python3 -m pip install google-cloud-videointelligence
zsh: command not found: python3
(base) sanin@sanin-zulphi:~/Downloads$ python3 -m pip install google-cloud-videointelligence
Collecting google-cloud-videointelligence
  Obtaining dependency information for google-cloud-videointelligence from https://files.pythonhosted.org/packages/c5/98/40fb94fcdcc2bdc2bac6842469586f7d56dc0b61467aaf871d957ab99d8/google_cloud_videointelligence-2.13.5-py2.py3-none-any.whl.metadata
  Downloading google_cloud_videointelligence-2.13.5-py2.py3-none-any.whl.metadata (5.7 kB)
Requirement already satisfied: google-api-core[grpc]>=2.0.* in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2.19.1)
Requirement already satisfied: google-auth>=2.24.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2.32.0)
Requirement already satisfied: proto-plus<2.0.0dev,>=1.22.3 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (1.24.0)
Requirement already satisfied: protobuf<4.21.0,>=4.21.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (5.27.3)
Requirement already satisfied: googleapis-common-protos<2.0.0dev,>=1.56.2 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-api-core[grpc]>=2.0.*,<3.0.0dev,>=1.34.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (1.63.2)
Requirement already satisfied: requests<3.0.0dev,>=2.18.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-api-core[grpc]>=2.0.*,<3.0.0dev,>=1.34.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2.31.0)
Requirement already satisfied: grpcio<2.0.0dev,>=1.33.2 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-api-core[grpc]>=2.0.*,<3.0.0dev,>=1.34.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (1.65.4)
Requirement already satisfied: grpcio-status<2.0.0dev,>=1.33.2 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-api-core[grpc]>=2.0.*,<3.0.0dev,>=1.34.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (1.65.4)
Requirement already satisfied: cachetools<5.0,>=2.0.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-auth>=2.24.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (5.4.0)
Requirement already satisfied: pyasn1-modules<0.2.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-auth>=2.24.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (0.2.0)
Requirement already satisfied: rsa<4.7,>=3.1.4 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-auth>=2.24.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (4.9)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from pyasn1-modules>=0.2.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (0.4.8)
Requirement already satisfied: charset-normalizer<4.0.0dev,>=2.0.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev,>=2.18.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (3.4)
Requirement already satisfied: idna<4.0,>=2.5 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev,>=2.18.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (3.4)
Requirement already satisfied: urllib3<3.0,>=1.21.1 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev,>=2.18.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2.0.7)
Requirement already satisfied: certifi<2024.7.17 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev,>=2.18.0 in /Users/sanin@sanin-zulphi:~/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2024.2.2)
Downloading google_cloud_videointelligence-2.13.5-py2.py3-none-any.whl (244 kB)
244.0/244.0 kB 5.5 MB/s eta 0:00:00
Installing collected packages: google-cloud-videointelligence-2.13.5
Successfully installed google-cloud-videointelligence-2.13.5
(base) sanin@sanin-zulphi:~/Downloads$
```

9. Write python code for processing video and displaying labels in video.

```
EXPLORER
  ADA
    ADA_filter.ipynb
    lab7.py
  ADA_filter.ipynb
  lab7.py

ADA_filter.ipynb
lab7.py

1 import os
2 os.environ["GOOGLE_APPLICATION_CREDENTIALS"] = "/Users/sanin@sanin-zulphi:~/Downloads/key7.json"
3
4
5 from google.cloud import videointelligence_v1 as videointelligence
6
7 def analyze_labels_in_video(gcs_uri):
8     video_client = videointelligence.VideoIntelligenceServiceClient()
9     features = [videointelligence.Feature.LABEL_DETECTION]
10    operation = video_client.annotate_video(
11        request={"features": features, "input_uri": gcs_uri}
12    )
13
14    print("Processing video for label detection...")
15    result = operation.result(timeout=90)
16    print("Finished processing.")
17
18    annotation_results = result.annotation_results[0]
19
20    for label in annotation_results.segment_label_annotations:
21        print(f"Label: {label.entity.description}")
22        for category in label.category_entities:
23            print(f"Category: {category.description}")
24
25 gcs_uri = "gs://bucket72348551/video.mp4"
26 analyze_labels_in_video(gcs_uri)
```

The git repository at "/Users/sanin@sanin-zulphi" has too many active changes, only a subset of Git features will be enabled.

Source: Git OK Don't Show Again

Ln 25, Col 33 Spaces: 4 UTF-8 LF Python 3.12.3 64-bit CODEGEEX

10. Run the python code.

```
5.*,!=2.6.*,!=2.7.*,!=2.8.*,!=2.9.*,<3.0.0dev,>=1.34.1->google-cloud-videointelligence) (1.65.4)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-auth==2.24.0,!=2.25.0,<3.0.0dev,>=2.14.1->google-cloud-videointelligence) (5.4.0)
Requirement already satisfied: pyasn1-modules>=0.2.1 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-auth==2.24.0,!=2.25.0,<3.0.0dev,>=2.14.1->google-cloud-videointelligence) (0.4.0)
Requirement already satisfied: rsa<5,>=3.1.4 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-auth==2.24.0,!=2.25.0,<3.0.0dev,>=2.14.1->google-cloud-videointelligence) (4.9)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from pyasn1-modules==0.2.1->google-auth==2.24.0,!=2.25.0,<3.0.0dev,>=2.14.1->google-cloud-videointelligence) (0.4.8)
Requirement already satisfied: charset-normalizer<4,>=2 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev0,>=2.18.0->google-api-core[grpc]==2.0.*,!=2.1.*,!=2.10.*,!=2.2.*,!=2.3.*,!=2.4.*,!=2.5.*,!=2.6.*,!=2.7.*,!=2.8.*,!=2.9.*,<3.0.0dev,>=1.34.1->google-cloud-videointelligence) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev0,>=2.18.0->google-api-core[grpc]==2.0.*,!=2.1.*,!=2.10.*,!=2.2.*,!=2.3.*,!=2.4.*,!=2.5.*,!=2.6.*,!=2.7.*,!=2.8.*,!=2.9.*,<3.0.0dev,>=1.34.1->google-cloud-videointelligence) (3.4)
Requirement already satisfied: urllib3<3,>=1.21.1 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev0,>=2.18.0->google-api-core[grpc]==2.0.*,!=2.1.*,!=2.10.*,!=2.2.*,!=2.3.*,!=2.4.*,!=2.5.*,!=2.6.*,!=2.7.*,!=2.8.*,!=2.9.*,<3.0.0dev,>=1.34.1->google-cloud-videointelligence) (2.0.7)
Requirement already satisfied: certifi<=2021.4.17 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from requests<3.0.0dev0,>=2.18.0->google-api-core[grpc]==2.0.*,!=2.1.*,!=2.10.*,!=2.2.*,!=2.3.*,!=2.4.*,!=2.5.*,!=2.6.*,!=2.7.*,!=2.8.*,!=2.9.*,<3.0.0dev,>=1.34.1->google-cloud-videointelligence) (2024.2.2)
Downloading google_cloud_videointelligence-2.13.5-py2.py3-none-any.whl (244 kB)
244.0/244.0 kB @ 6.6 MB/s eta 0:00:00
Installing collected packages: google-cloud-videointelligence
Successfully installed google-cloud-videointelligence-2.13.5
(base) saninzulphi@Sanins-MacBook-Pro Downloads % os.environ["GOOGLE_APPLICATION_CREDENTIALS"] = "/Users/saninzulphi/Downloads/key7.json"
zsh: no matches found: os.environ["GOOGLE_APPLICATION_CREDENTIALS"]
(base) saninzulphi@Sanins-MacBook-Pro Downloads % export os.environ["GOOGLE_APPLICATION_CREDENTIALS"] = "/Users/saninzulphi/Downloads/key7.json"
zsh: no matches found: os.environ["GOOGLE_APPLICATION_CREDENTIALS"]
(base) saninzulphi@Sanins-MacBook-Pro Downloads % python lab7.py
/Applications/Xcode.app/Contents/Developer/usr/bin/python3: can't open file '/Users/saninzulphi/Downloads/lab7.py': [Errno 2] No such file or directory
(base) saninzulphi@Sanins-MacBook-Pro Downloads % python lab7.py
Traceback (most recent call last):
  File "/Users/saninzulphi/Downloads/lab7.py", line 6, in <module>
    from google.cloud import videointelligence_v1 as videointelligence
ModuleNotFoundError: No module named 'google'
(base) saninzulphi@Sanins-MacBook-Pro Downloads % python3 lab7.py
WARNING: All log messages before absl::InitializeLog() is called are written to STDERR
10000 00:00:1723311798.113894 2044377 check_gcp_environment_no_op.cc:29] ALTS: Platforms other than Linux and Windows are not supported
Processing video for label detection...
Finished processing.
Label: infrastructure
Label: car
- Category: vehicle
Label: overpass
- Category: bridge
Label: controlled access highway
- Category: highway
Label: transport
Label: intersection
- Category: street
Label: vehicle
Label: lane
- Category: road
Label: traffic
Label: metropolitan area
- Category: city
Label: road
Label: shoulder
- Category: road
Label: junction
- Category: road
Label: highway
- Category: road
Label: urban area
- Category: city
Label: asphalt
(base) saninzulphi@Sanins-MacBook-Pro Downloads %
```

These are the output categories and their labels from the video.