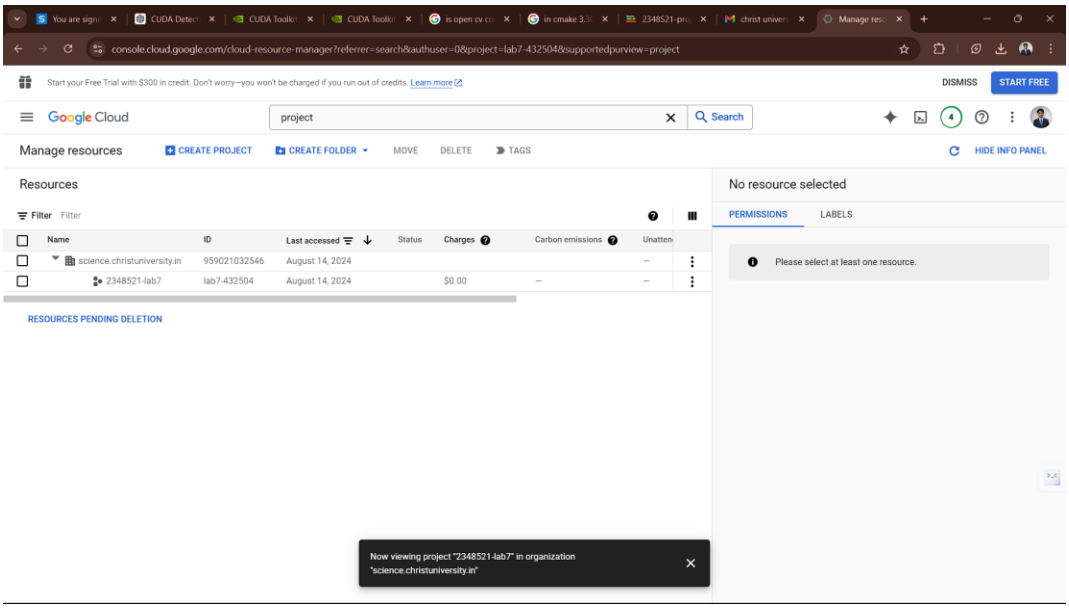
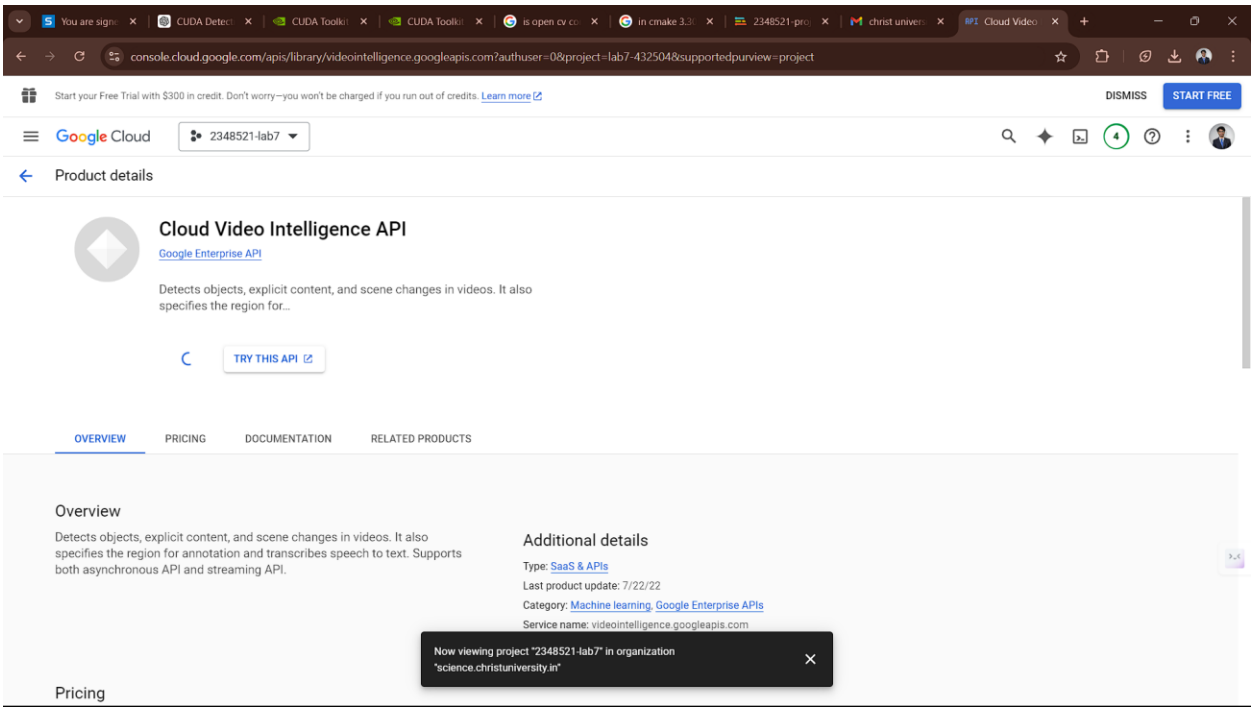
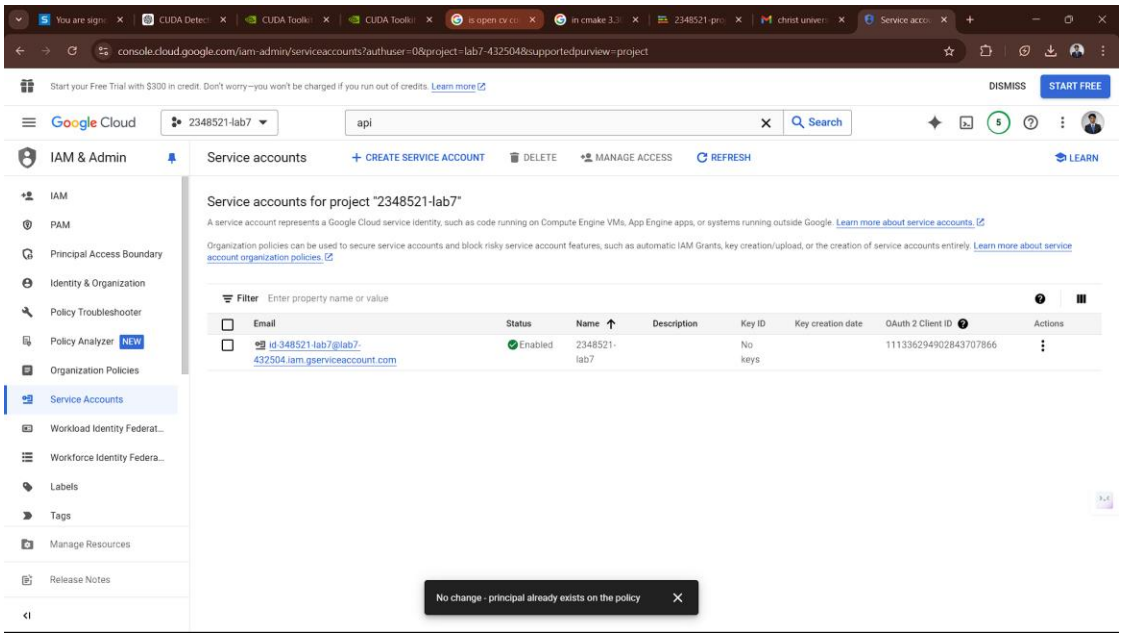
Ismail Basheer
2348521

1. Create new project and enable cloud video intelligence API

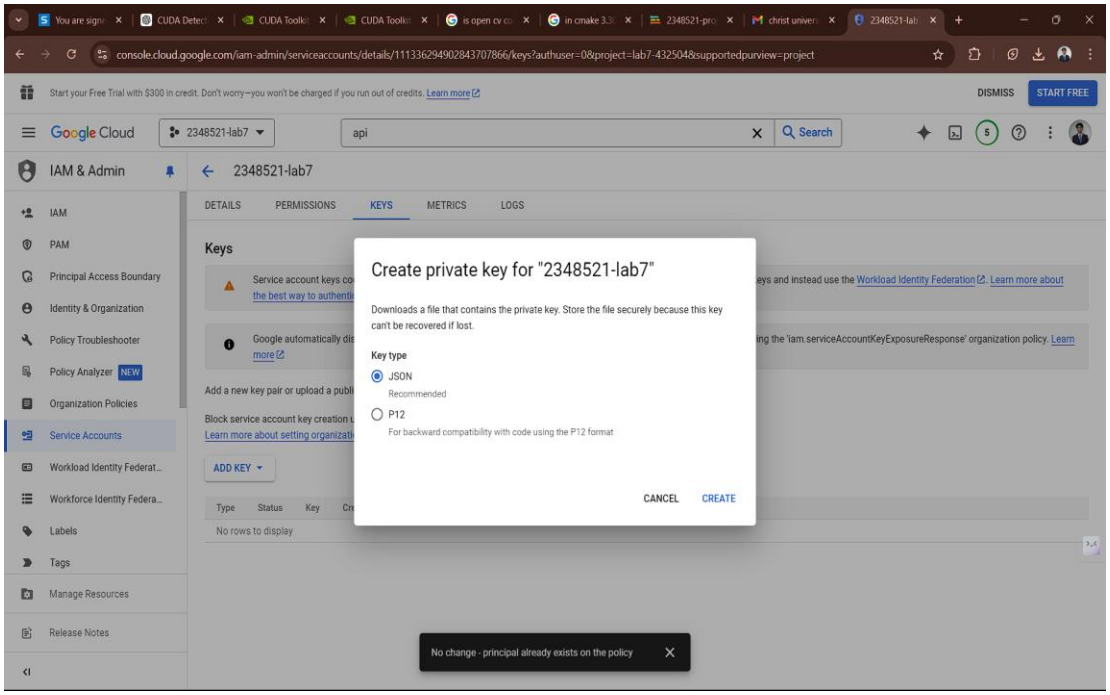




2. Create a service account.



3. Create a JSON key.


console.cloud.google.com/iam-admin/serviceaccounts/details/111336294902843707866/keys?authuser=0&project=lab7-432504&supportedpurview=project
Start your Free Trial with $300 in credit. Don't worry—you won't be charged if you run out of credits. Learn more
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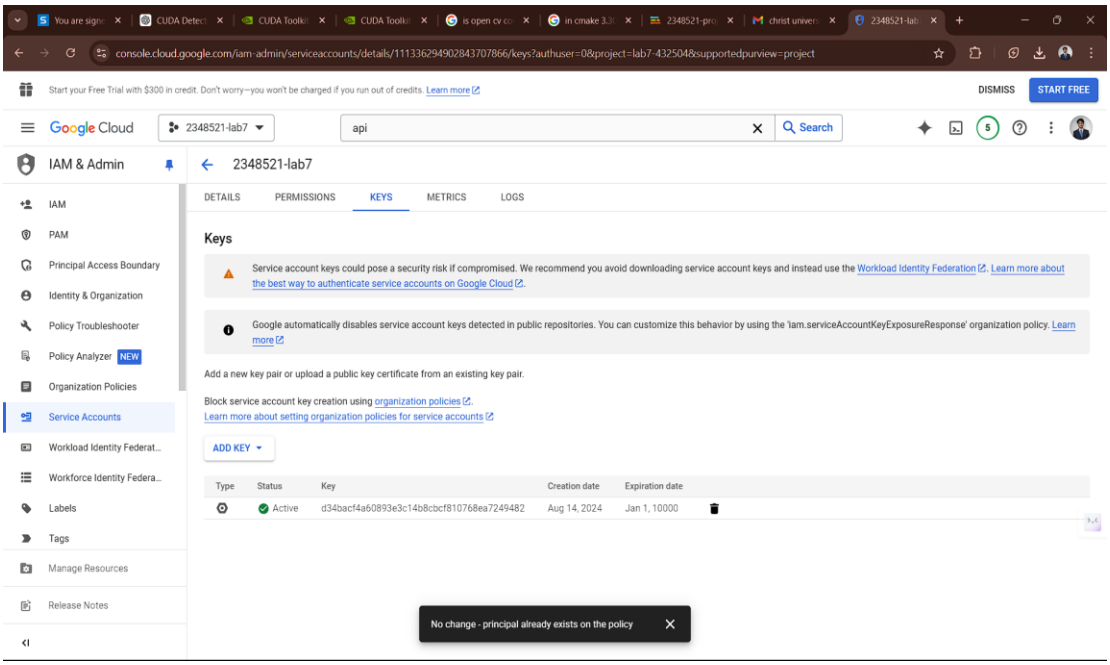
METRICS
LOGS
IAM
PAM
Principal Access Boundary
Identity & Organization
Policy Troubleshooter
Policy Analyzer
NEW
Organization Policies
Service Accounts
Workload Identity Federat...
Workforce Identity Federa...
Labels
Tags
Manage Resources
Release Notes
Keys
Create private key for "2348521-lab7"
Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.
Key type
JSON
Recommended
P12
For backward compatibility with code using the P12 format
CANCEL
CREATE
ADD KEY
Type
Status
Key
No rows to display
No change - principal already exists on the policy


console.cloud.google.com/iam-admin/serviceaccounts/details/111336294902843707866/keys?authuser=0&project=lab7-432504&supportedpurview=project
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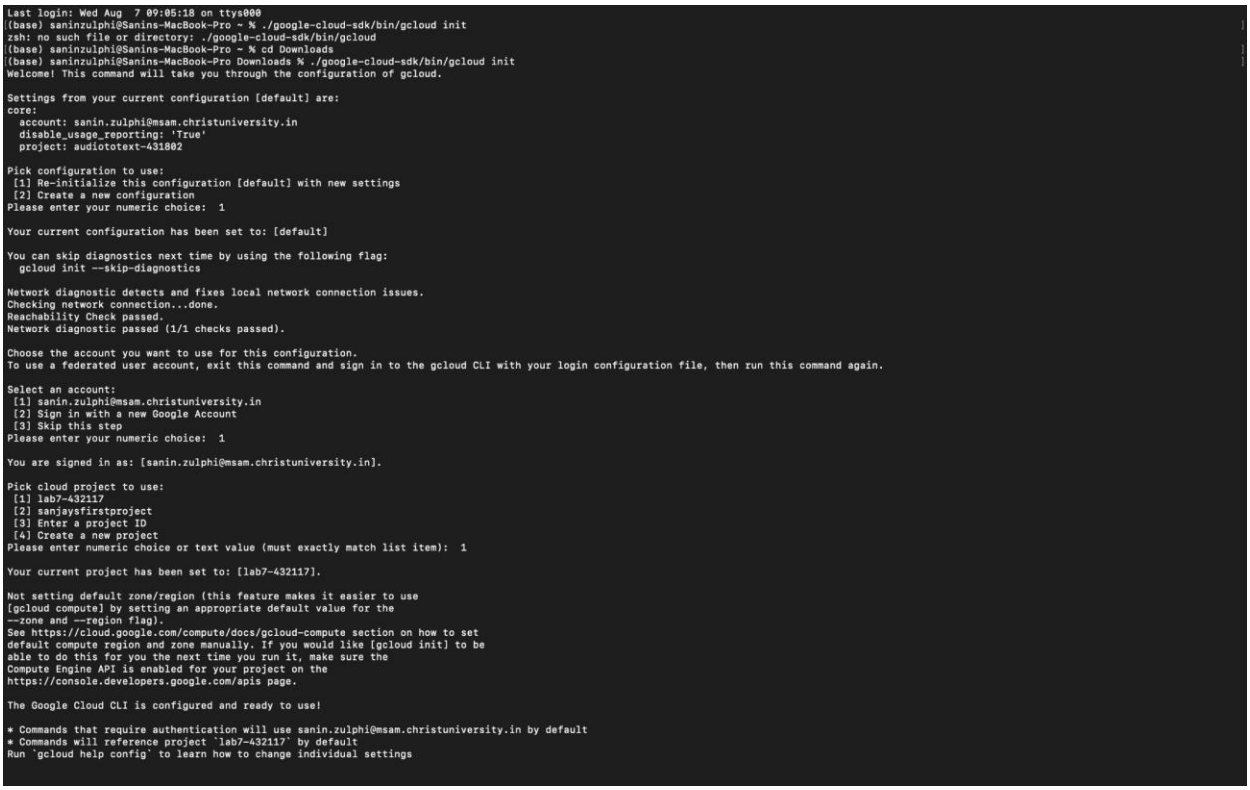
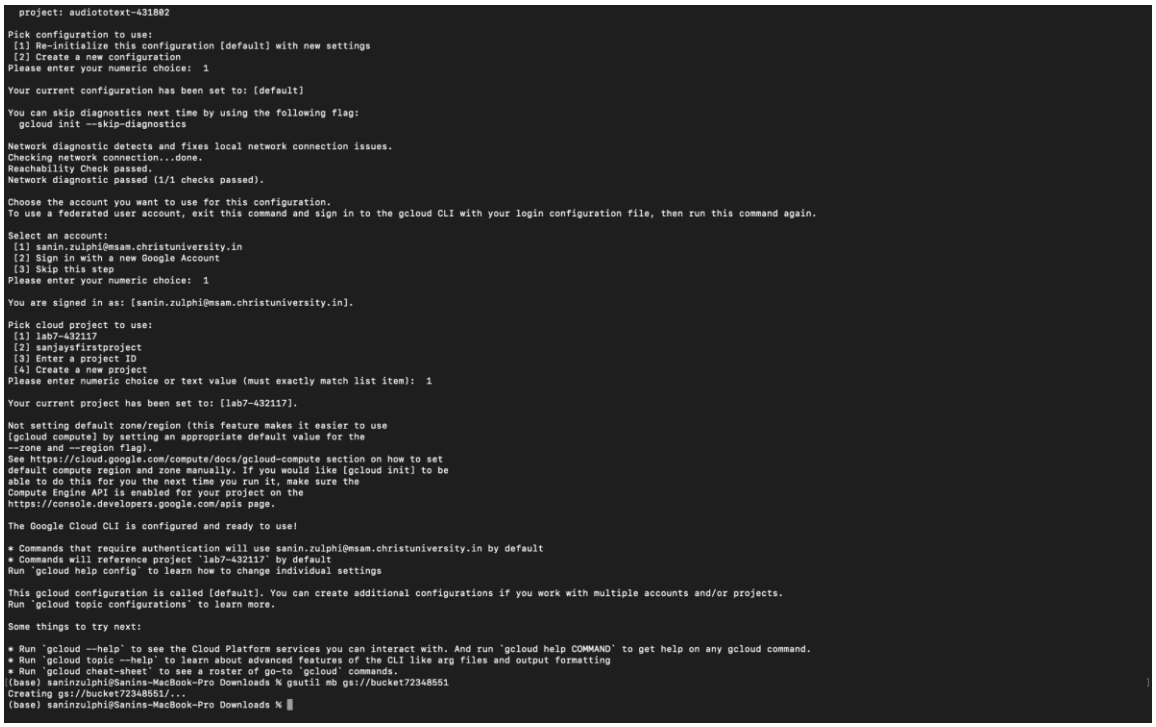
Policy Troubleshooter
Policy Analyzer
NEW
Organization Policies
Service Accounts
Workload Identity Federat...
Workforce Identity Federa...
Labels
Tags
Manage Resources
Release Notes
Keys
Service account keys could pose a security risk if compromised. We recommend you avoid downloading service account keys and instead use the Workload Identity Federation. Learn more about the best way to authenticate service accounts on Google Cloud.
Google automatically disables service account keys detected in public repositories. You can customize this behavior by using the 'iam.serviceAccountKeyExposureResponse' organization policy. Learn more
Add a new key pair or upload a public key certificate from an existing key pair.
Block service account key creation using organization policies.
Learn more about setting organization policies for service accounts
ADD KEY
Type
Status
Key
Creation date
Expiration date
Active
d34bacf4a60893e3c14b8cbcf810768ea7249482
Aug 14, 2024
Jan 1, 10000
No change - principal already exists on the policy

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

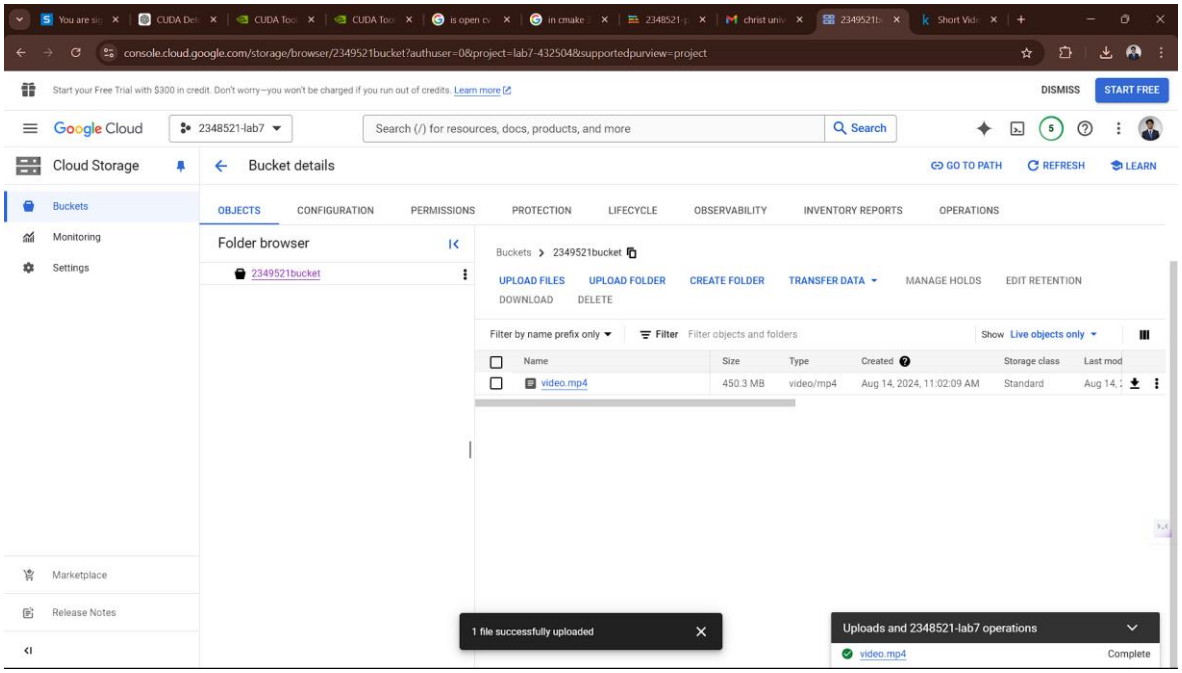


5. Creating a bucket storage.



6. Uploading sample video to the bucket storage.

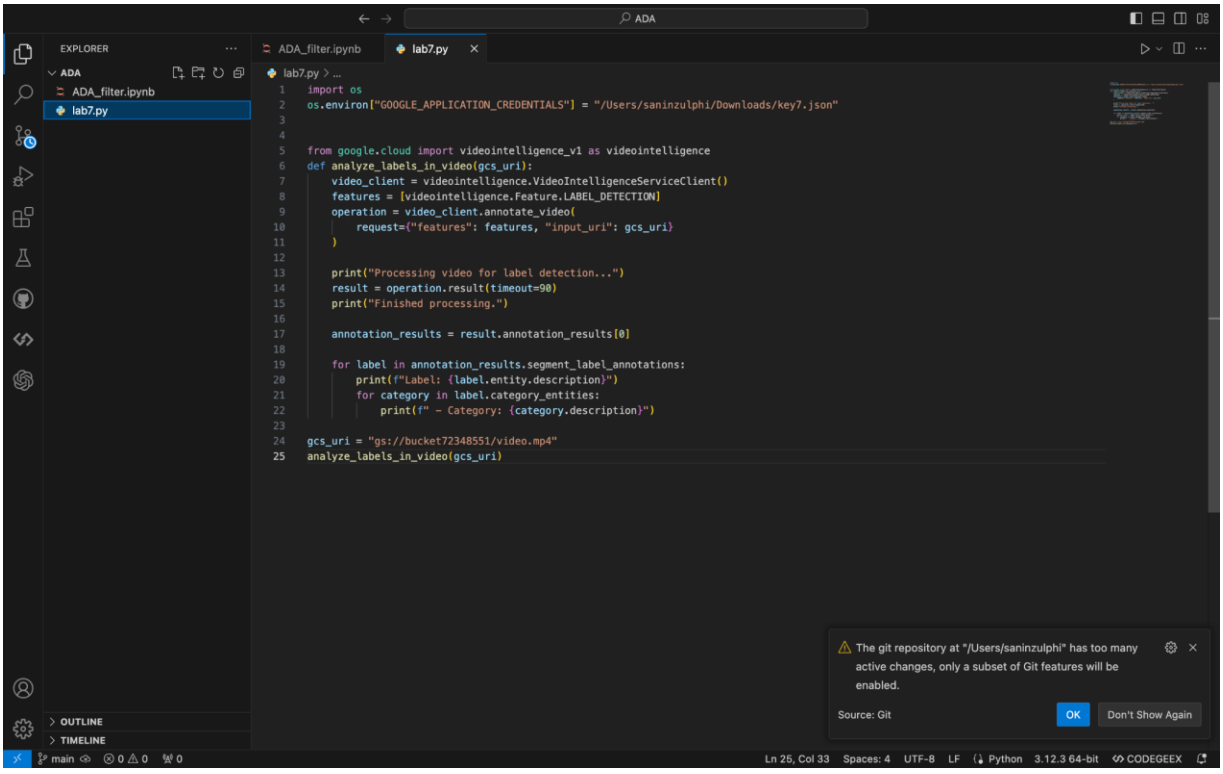
7. In the console the bucket is created and video is uploaded.



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@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 % gsutil cp /Users/saninzulphi/Downloads/video7.mp4 gs://bucket72348551/video.mp4
Copying file:///Users/saninzulphi/Downloads/video7.mp4 [Content-Type=video/mp4]...
\ [1 files][ 42.8 MiB/ 42.8 MiB]
Operation completed over 1 objects/42.8 MiB.
(base) saninzulphi@Sanins-MacBook-Pro Downloads % from google.cloud import videointelligence_v1 as videointelligence
zsh: command not found: from
(base) saninzulphi@Sanins-MacBook-Pro Downloads % pip install google-cloud-videointelligence
Collecting google-cloud-videointelligence
  Obtaining dependency information for google-cloud-videointelligence from https://files.pythonhosted.org/packages/c5/98/40fb94fcdcc2bd1c2bac604240586f7d56dcb061467aaf071d957ab99d8/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.*,!=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 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (2.19.1)
Requirement already satisfied: google-auth!=2.24.0,!=2.25.0,<3.0.0dev,>=2.14.1 in /Users/saninzulphi/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/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (1.24.0)
Requirement already satisfied: protobuf!=4.21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<6.0.0dev,>=3.20.2 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from google-cloud-videointelligence) (5.27.3)
Requirement already satisfied: googleapis-common-protos<2.0.dev0,>=1.56.2 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from 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) (1.63.2)
Requirement already satisfied: requests<3.0.0.dev0,>=2.18.0 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from 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) (2.31.0)
Requirement already satisfied: grpcio<2.0dev,>=1.33.2 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from 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) (1.65.4)
Requirement already satisfied: grpcio-status<2.0.dev0,>=1.33.2 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from 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) (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) (0.2.8)
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<3.0.0.dev0,>=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<3.0.0.dev0,>=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<3.0.0.dev0,>=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>=2017.4.17 in /Users/saninzulphi/anaconda3/lib/python3.11/site-packages (from requests<3.0.0.dev0,>=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)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 245.0/245.0 kB 5.6 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 %
```

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



10. Run the python code.

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