1. Video Data:

Here I am using the same project that I have created for Image classification AutoML.

1. Project id: hw2p1-image

Project name *

hw2p1-image   ❓

Project ID: hw2p1-image. It cannot be changed later.   EDIT

Organization *

sjsu.edu   ▼   ❓

Select an organization to attach it to a project. This selection can't be changed later.

Location *

🏢 sjsu.edu   BROWSE

Parent organization or folder

CREATE   CANCEL

2. API is enabled

☰ **Google Cloud Platform** ⁝• hw2p1-image ▼

The API is enabled

Cloud AI Platform API has been enabled.

Next, to use the API you'll need the right credentials.

Go to credentials

3. Authentication Setup

← Create service account key

Service account

New service account ▾

Service account name ❓	Role ❓
hw2p1	Owner ▾

Service account ID

hw2p1-306 @hw2p1-image.iam.gserviceaccount.com ↻

Key type

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

- ● **JSON**
  Recommended
- ○ **P12**
  For backward compatibility with code using the P12 format

Create   Cancel

4. Set environment variable

```
Administrator: Command Prompt                                          —   □   ×

Microsoft Windows [Version 10.0.19041.804]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>set GOOGLE_APPLICATION_CREDENTIALS=C:\Users\subar\Downloads\Study\8_CMPE-258-Sec49-DeepLearning\hw2\
hw2p1-image-3ce38964a5bf.json

C:\WINDOWS\system32>
```

5. Cloud Console:

```
CLOUD SHELL
Terminal    (hw2p1-image) ×  + ▾

Welcome to Cloud Shell! Type "help" to get started.
To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]"
subarnachowdhury_soma@cloudshell:~$ gcloud config set project hw2p1-image
Updated property [core/project].
subarnachowdhury_soma@cloudshell:~ (hw2p1-image)$ ▯
```

6. Create Dataset 'hw2p1-video_classification'

← Create dataset

Dataset name *
hw2p1-video_classification

Can use up to 128 characters.
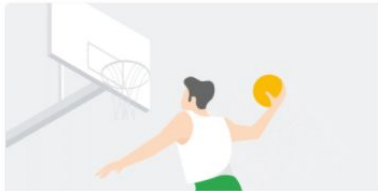
Select a data type and objective

First select the type of data your dataset will contain. Then select an objective, which is the outcome that you want to achieve with the trained model. Learn mo

| IMAGE | TABULAR | TEXT | VIDEO |

◉ Video action recognition

Identify the action moments in your videos.

○ Video classification

Get label predictions for entire videos, shots, and frames.

○ Video object tracking

Get labels, tracks, and timestamps for objects you want to track in a video.

Region
us-central1 (Iowa)   ▼   ❷

7. Import Data from Storage

8. Finished Importing Data

AI Platform finished importing data into dataset "hw2p1-video_classification" Inbox ×

AI Platform <noreply-aiplatform@google.com>
to me ▾

Hello AI Platform Customer,

AI Platform finished importing data into
dataset "hw2p1-video_classification".
Additional Details:
Operation State: Succeeded
Resource Name:
projects/589827040428/locations/us-central1/datasets/1335968200398995456

To continue your progress, go back to your dataset using
https://console.cloud.google.com/ai/platform/locations/us-central1/datasets/1335968200398995456;annotationSetId=3316989086488592384/browse?aut

Sincerely,
The Google Cloud AI Team

9. Created Training Model:

Train new model

① Define your model

② Choose training method

START TRAINING   CANCEL

Model name *
demo-data_2020717202754

Dataset
demo-data

Annotation set
demo-data_vcn

Objective
Video classification

∨ ADVANCED OPTIONS

CONTINUE

10. Got Email Notification about successful training

AI Platform finished training model "hw2p1-text_classification_2021221233425"

AI Platform <noreply-aiplatform@google.com>
to me ▾

Hello AI Platform Customer,

AI Platform finished training
model "hw2p1-text_classification_2021221233425".
Additional Details:
Operation State: Succeeded
Resource Name:
projects/589827040428/locations/us-central1/trainingPipelines/9132015814726123520
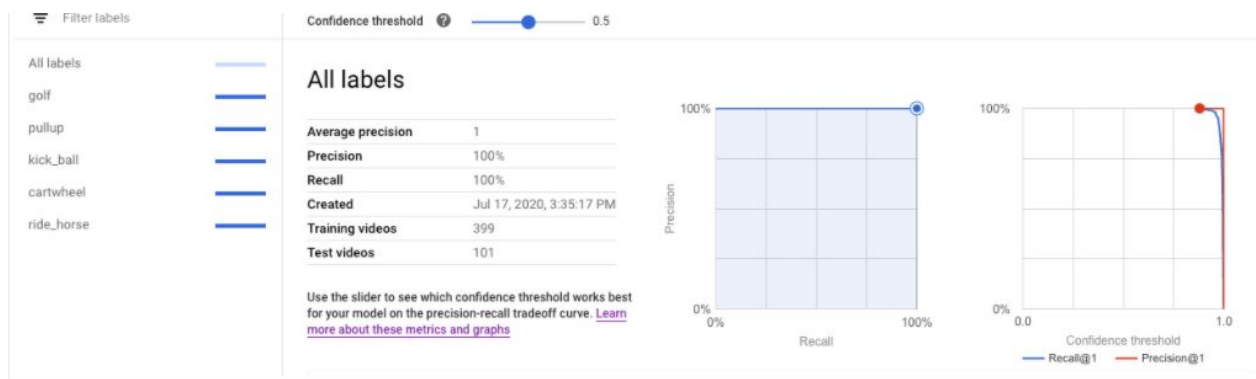
To continue your progress, go back to your training pipeline using
https://console.cloud.google.com/ai/platform/models?authuser=1&project=hw2p1-image

Sincerely,
The Google Cloud AI Team

11. Evaluation

12. Batch Prediction Setup

New batch prediction

Batch prediction name *

demo_model_prediction

Model name *   ▼

Select a Cloud Storage location

Prediction results will be stored in the selected Cloud Storage bucket

Output format

Destination path *

⬛ gs:// automl-video-demo-data/hmdb_split1_predict.jsonl   BROWSE

13. Prediction 100% Correct

← gs://automl-video-demo-data/hmdb51/Michelle_Wie__Golf_Swing_golf_f_cm_np1_fr_med_0.mp4 [0-2] ▼

▶ 🟩 cartwheel (1)
▶ 🟨 golf (1)
▶ 🟧 kick_ball (1)
▶ 🟧 pullup (1)
▶ 🟥 ride_horse (1)

	00:00.0	00:0.5	00:01	00:1.5	00:02	00:2.5
■ cartwheel						
■ golf 0.403						
■ kick_ball						
■ pullup						
■ ride_horse						