

### IBM Watson Website

Link	<a href="https://cloud.ibm.com">https://cloud.ibm.com</a>
Create Ressource	AI -> Visual Recognition
make service	Lite Plan
get important information	API Key and URL

### Installation

Install opencv	pip install opencv-python
Install ibm-watson	pip install ibm-watson

### Test Application

Send Picture to Goolge press	d
Quit application press	q

### Paste in a Pythonfile

```
import cv2
from ibm_watson import VisualRecognitionV3
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
import json
import sys

authenticator = IAMAuthenticator('API KEY')
service = VisualRecognitionV3(
    version='2020-02-26',
    authenticator=authenticator
)
service.set_service_url('URL')

cap = cv2.VideoCapture(0)

key = ''
```

### Paste in a Pythonfile (cont)

```
while( key != 'q' ):
    ret, frame = cap.read()
    cv2.imshow('frame', frame)
    intkey = cv2.waitKey(2)
    if( intkey > 0 ):
        key = chr(intkey)
    else:
        key = ''

    if key == 'd' :
        cv2.imwrite('upload.jpg', frame)
        with open('upload.jpg', 'rb') as file:
            classes = service.classify(images_file=file, threshold='0.6').get_result()
            print(json.dumps(classes, indent=2))
```

### Speech to Text

```
curl -X POST -u "apikey:
{apikey}" \
--header "Content-Type: audio/flac" \
--data-binary @{{path_to_file}}-audio-file.flac \
"{url}/v1/recognize?timestamps=true&max_alternatives=3"
```

### Speech to Text

install curl

### Speech to Text

```
{
  "results": [
    {
      "alternatives": [
        {
          "timestamps": [
            ["several":, 1.0, 1.51],
```

### Speech to Text (cont)

```
["tornadoes":, 1.51, 2.15],
      ["touch":, 2.15, 2.5],
      . . .
    ]
  },
  {
    "confidence": 0.96
    "transcript": "several tornadoes touch down as a line of severe thunderstorms swept through Colorado on Sunday "
  },
  {
    "transcript": "several tornadoes touched down as a line of severe thunderstorms swept through Colorado on Sunday "
  },
  {
    "transcript": "several tornadoes touch down as a line of severe thunderstorms swept through Colorado and Sunday "
  },
  ],
  "final": true
},
"result_index": 0
}
```