IBM Watson Cheat Sheet

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Get started

Visit https://cloud.ibm.com and create an account

create a resource and choose **Visual RecognitionMarkup** in the **AI** category

use Lite Plan and copy your given API key and your URL

install Python Version 3

install these packages with pip: opencv-python/ ibm-watson

Face Recognition code

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

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

cap = cv2.VideoCapture(0)

key = ''
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))
```

IBM Watson in Java

```
IamOptions iamoptions = new IamOptions.Builder().apiKey("YOUR API KEY").build();
            SpeechToText stt = new SpeechToText-(iamoptions);
            stt.setEndPoint("https://stream-fra.w-atsonplatform.net/speech-to-text/api");
            File audio = new File("src/resour-ces/sample1.wav");
            RecognizeOptions options = new Recogn-izeOptions.Builder()
                    .audio(audio)
                    .contentType(HttpMediaType.A-UDIO_WAV)
                    .build();
            SpeechRecognitionResults transcript = stt.recognize(options).execute();
            System.out.println(transcript);
            taText.setText(transcript.getResults-().get(0).getAlternatives().get(0).getTranscr-ipt());
```

Speech to Text in Python

```
$ pip install --upgrade watson-developer-cloud
from speech_sentiment_python.recorder import Recorder
recorder = Recorder(“speech.wav”)
recorder.record_to_file()
def transcribe_audio(path_to_audio_file):
   username = os.environ.get(“USERNAME”)
   password = os.environ.get(“PASSWORD”)
   speech_to_text = SpeechToText(username=us-ername,
   password=password)
   with open(join(dirname(__file__), path_to_audi-o_file), ‘rb’) as
   audio_file:
       return speech_to_text.recognize(audio_file,
                                       content_t-ype=’audio/wav’)
```