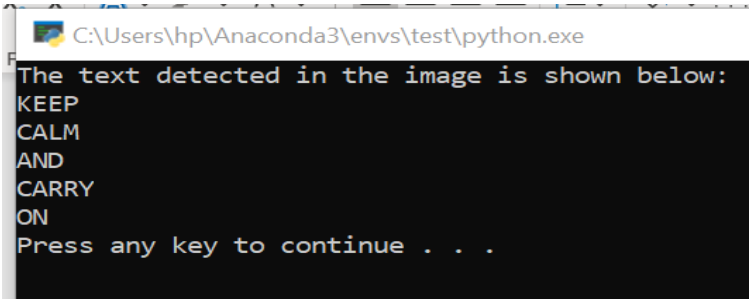
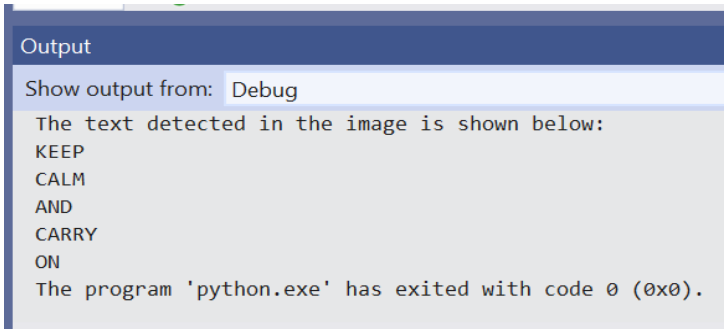
Detection of text from image using AWS Rekognition

Example Input:

Example output:





Procedure to be followed in two scenarios (i) Image stored in local drive and (ii) Image stored in Amazon S3 bucket are detailed below:

I. Image stored in local drive

Step 1: Creation of a user in AWS

Login to AWS console >> Identity and access management >> Users >> Add user
User name: test (say)
Access type: ☑ Programmatic access >> Next: Permissions
Select **Existing policies directly**

type 'Rekognition'
☑ Amazon Rekognition Full Access

type 'S3'
☑ Amazon S3 read only access

Click on **Next:Tags** >> Review >> Create user
A user 'test' is created

To download the credentials of the user ‘test’, click on ‘download.csv’.

Step 2: Extraction of text from image (using Python)

- The downloaded ‘credentials.csv’ file may be stored in the folder in which the python program will be executed.
- The sample image (.jpg or .png) from which text is to be extracted may also be stored in this folder

The python code to be executed for extracting text from image is shown below:

```
# Import CSV and boto3 libraries

import csv
import boto3

# Access AWS user credentials from the csv file

with open('credentials.csv','r') as input:
    next(input)
    reader=csv.reader(input)
    for line in reader:
        access_key_id=line[2]
        secret_access_key=line[3]

# Access the image stored in the local disk , detect text and display detected
text

photo='keepcalm.jpg'
client=boto3.client('rekognition',aws_access_key_id=access_key_id,aws_secret_acces
s_key=secret_access_key)
with open(photo,'rb') as image:
    response = client.detect_text(Image={'Bytes':image.read()})
    textDetections=response['TextDetections']
    print('The text detected in the image is shown below:')
    lhalf=len(textDetections)//2
    for text in textDetections[0:lhalf]:
        print(text['DetectedText'])
```

II. Image stored in AWS S3 bucket

Step 1: Creation of a S3 bucket in AWS and uploading image

Login to AWS console >> S3 >> Create Bucket >> <Provide a name> >> Create

To upload the required file, Select the bucket >> Upload

The following python code needs to be executed to extract text from the uploaded image.

Step 2: Extraction of text from image (using Python)

```
# Import CSV and boto3 libraries

import csv
import boto3

# Access AWS user credentials from the csv file

with open('credentials.csv','r') as input:
    next(input)
    reader=csv.reader(input)
    for line in reader:
        access_key_id=line[2]
        secret_access_key=line[3]

# Access the image stored in the local disk , detect text and display detected
text

photo='keepcalm.jpg'
client=boto3.client('rekognition',aws_access_key_id=access_key_id,aws_secret_acces
s_key=secret_access_key)
response = client.detect_text(
Image={

        'S3Object': {
            'Bucket': 'test',
            'Name': photo

        }
    }
)
 textDetections=response['TextDetections']
 print('The text detected in the image is shown below:')
 lhalf=len(textDetections)//2
 for text in textDetections[0:lhalf]:
        print(text['DetectedText'])
```