

## 1) Connecting to drive

```
from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

## 2) Building dataset:

```
from IPython.display import display, Javascript
from google.colab.output import eval_js
from base64 import b64decode
import uuid
```

```
def take_photo(quality=0.8):
    js = Javascript('''
    async function takePhoto(quality) {
      var finish = false;
      const div = document.createElement('div');
      var input_name = document.createElement("input");
      input_name.placeholder = "Enter a name"
      const capture = document.createElement('button');
      capture.textContent = 'Capture';
      const stop = document.createElement('button');
      stop.textContent = 'Stop';
      stop.onclick = function() {finish = true; capture.click()};
      div.appendChild(input_name)
      div.appendChild(capture);
      div.appendChild(stop);

      const video = document.createElement('video');
      video.style.display = 'block';
      const stream = await navigator.mediaDevices.getUserMedia({video: true});

      document.body.appendChild(div);
      div.appendChild(video);
      video.srcObject = stream;
      await video.play();

      // Resize the output to fit the video element.
      google.colab.output.setIframeHeight(document.documentElement.scrollHeight, true)

      // Wait for Capture to be clicked.
      await new Promise((resolve) => capture.onclick = resolve);
      if(finish){
        stream.getTracks().forEach(function(track) {
          track.stop();
        });
      }
    }
    ''')
```

```

        div.innerHTML = ""
        return null
    }

    const canvas = document.createElement('canvas');
    canvas.width = video.videoWidth;
    canvas.height = video.videoHeight;
    canvas.getContext('2d').drawImage(video, 0, 0);
    stream.getVideoTracks()[0].stop();
    div.remove();
    return {data: canvas.toDataURL('image/jpeg', quality), name: input_name.value};
}
''')
display(js)
photo = eval_js('takePhoto({})'.format(quality))
if photo is None:
    return None, None
data = photo['data']
name = photo['name']
binary = b64decode(data.split(',')[1])
filename = str(uuid.uuid1())+".jpg"
with open(filename, 'wb') as f:
    f.write(binary)
return filename, name

from IPython.display import Image

try:
    while True:
        filename, name = take_photo()
        if filename is None:
            break
        print('Saved to {}'.format(filename))
        if name == "":
            folder = "other"
        else: folder = name
        !mkdir -p drive/Shareddrives/Projet-ML-M2-PLS/data/train/$folder && mv $filename

# Show the image which was just taken.
#display(Image(filename))
print('Camera stopped')
except Exception as err:
    # Errors will be thrown if the user does not have a webcam or if they do not
    # grant the page permission to access it.
    print(str(err))

```

Saved to 67f4e08c-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 72d09e2e-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 76f03280-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 7a5bae18-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 7e18158c-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 835d6718-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 89cec858-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 92d2a3fc-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 9536251a-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 990292aa-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 9b9304aa-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 9ef36e6e-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to a1712fa0-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to a3e2ddc4-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to cbb60d8a-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to cfd76e36-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to d245bb14-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to d4a4763e-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to d728cedc-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to d9d070b8-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to df2da3a0-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to e2a8882e-6c73-11eb-a998-0242ac1c0002.jpg  
Saved to 08674bfe-6c74-11eb-a998-0242ac1c0002.jpg  
Saved to 0c702108-6c74-11eb-a998-0242ac1c0002.jpg  
Saved to 0f5cc2ea-6c74-11eb-a998-0242ac1c0002.jpg  
Saved to 12275850-6c74-11eb-a998-0242ac1c0002.jpg  
Saved to 1590055a-6c74-11eb-a998-0242ac1c0002.jpg  
Saved to 6464456a-6c74-11eb-a998-0242ac1c0002.jpg  
Camera stopped

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