Resources

Read or watch:

```
Data Augmentation | How to use Deep Learning when you have Limited Data — Part 2
tf.image
tf.keras.preprocessing.image
Automating Data Augmentation: Practice, Theory and New Direction
```

Learning Objectives

At the end of this project, you are expected to be able to explain to anyone, without the help of Google:

General

```
What is data augmentation?
When should you perform data augmentation?
What are the benefits of using data augmentation?
What are the various ways to perform data augmentation?
How can you use ML to automate data augmentation?
```

Requirements

General

```
Allowed editors: vi, vim, emacs
All your files will be interpreted/compiled on Ubuntu 16.04 LTS using python3 (version 3.6.12)
Your files will be executed with numpy (version 1.16) and tensorflow (version 1.15)
All your files should end with a new line
The first line of all your files should be exactly #!/usr/bin/env python3
All of your files must be executable
A README.md file, at the root of the folder of the project, is mandatory
Your code should follow the pycodestyle style (version 2.4)
All your modules should have documentation (python3 -c 'print(__import__("my_module").__doc__)')
All your classes should have documentation (python3 -c 'print(__import__("my_module").MyClass.__doc__)')
All your functions (inside and outside a class) should have documentation (python3 -c 'print(__import__("my_module").my_function.__doc__)' and python3 -c 'print(__import__("my_module").MyClass.my_function.__doc__)')
Unless otherwise stated, you cannot import any module except import tensorflow as tf
```

Download TF Datasets

```
pip install --user tensorflow-datasets
```