

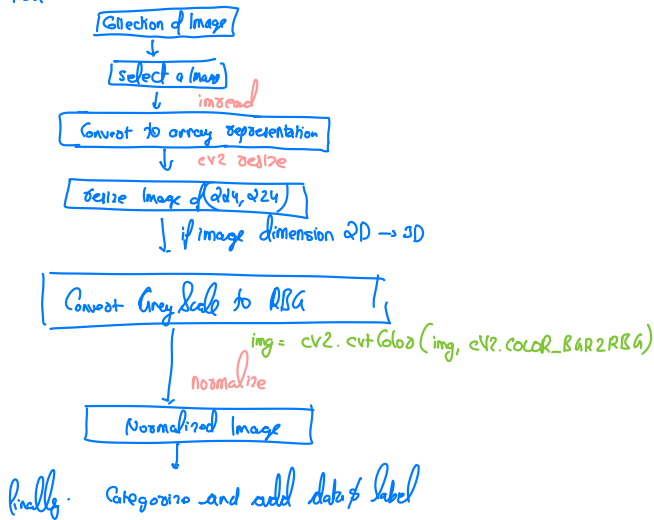
Goal: A Light-weight Image classifier for Pneumonia & Normal CXR

- Step 1: load the data we will store Normal case of train data in normal_cases_dic & 'Pneumonia' in pneumonia_cases_dic

Step 2: form a dataloader of the data by first forming an array of [image, its_label] & shuffle the data

Step 3: Analyzing our dataset: for Pneumonia we have 3875 images
for Normal we have 1341 images

Step 4: Now comes most interesting part because the given
some images are in gray scale so we need to convert them
to RGB



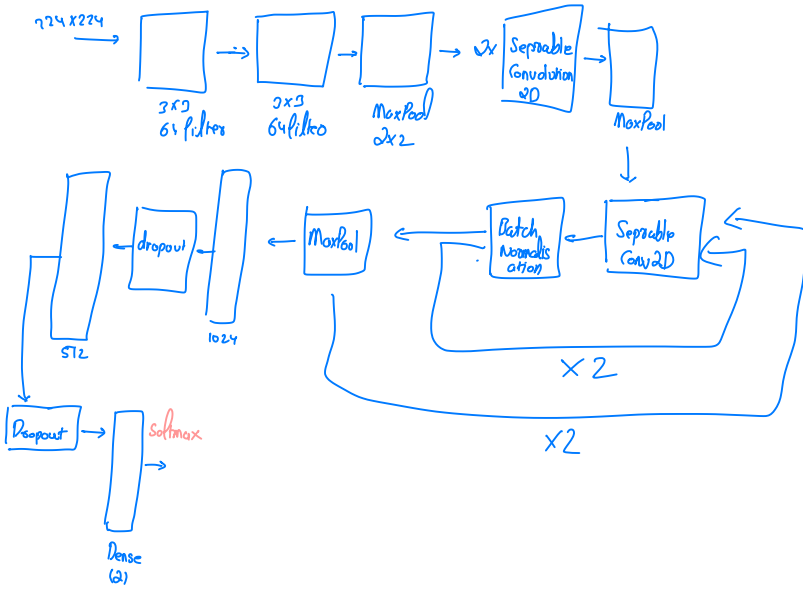
And to the same process for Validation data

Step 5: Data Augmentation: for this at random we will

do one of three things

horizontal flip rotation change brightness

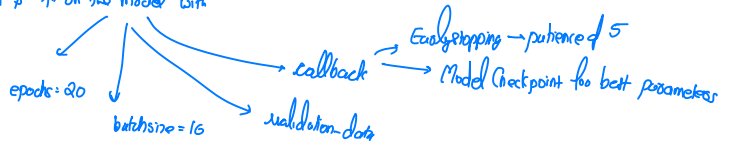
Step 6:



Step 7: Compile

- loss = binary_crossentropy
- metrics = 'accuracy'
- optimizer = Adam with learning rate of 0.001 & decay rate of $1e^{-5}$

Step 8: General data augmentation & fit on the model with



Step8: Do some processing for test data to evaluate/predict on it