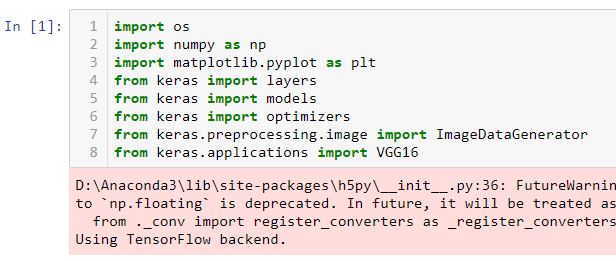
**VGG16、ResNet20、InceptionV3**

**7107029022 資管碩二 邱靖詒**

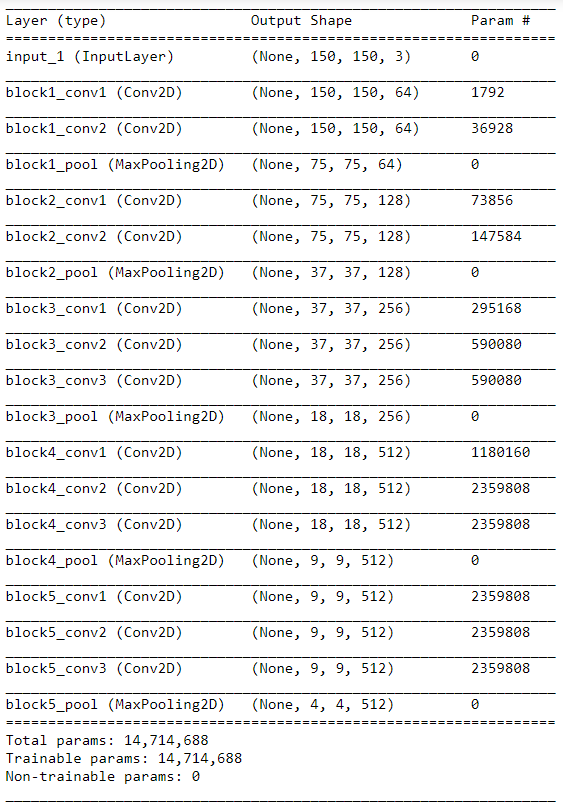
* **VGG16**

1. 匯入套件

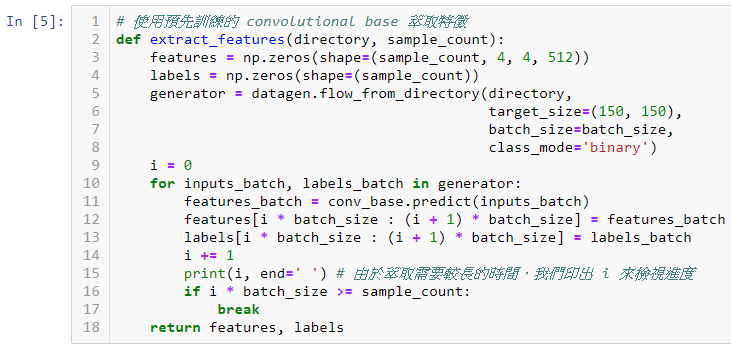


1. 兩種情況：VGG16 (w/o data augmentation)、VGG16 (with data augmentation)
2. VGG (w/o data augmentation)

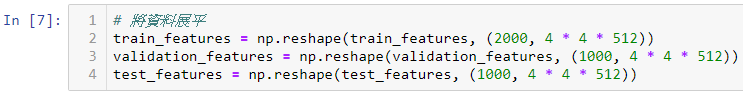
* 模型架構



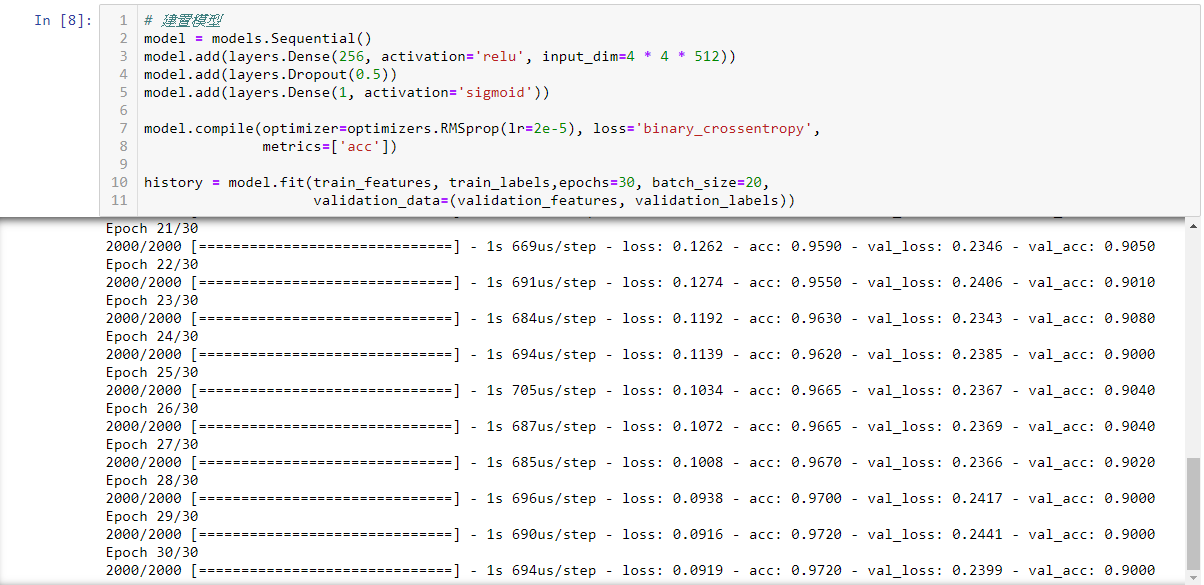
* 使用預先訓練的 convolutional base 萃取特徵



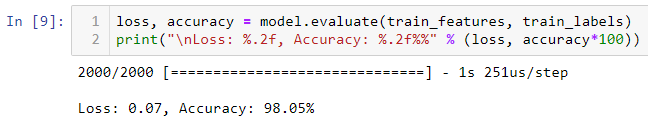
* 資料展平



* 建置模型



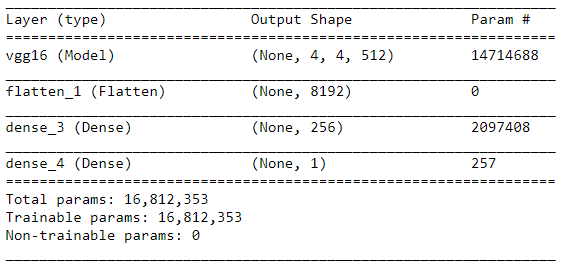
* 模型準確率 + 視覺化呈現



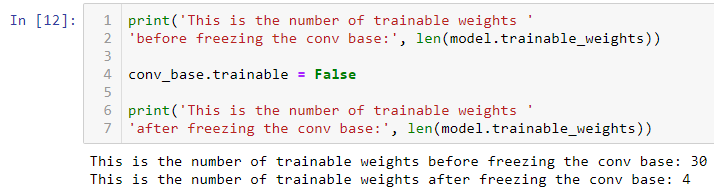
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1. VGG (with data augmentation)
   * 模型架構

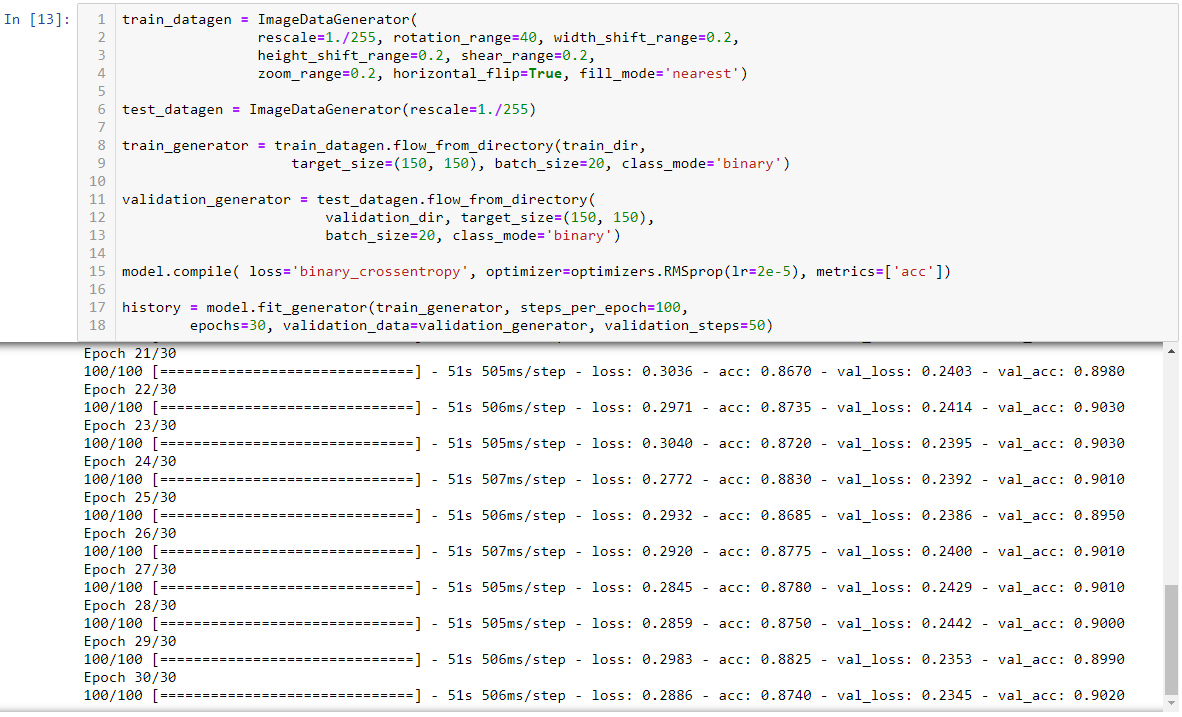
在 convolutional base 卷積基底上增加密集層分類器



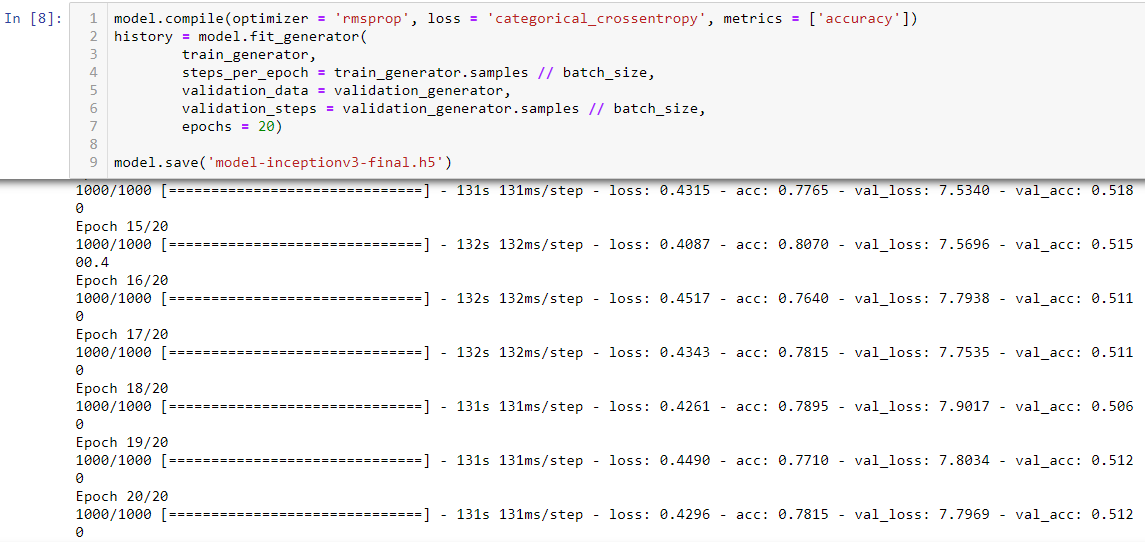
* + 凍結卷積基底神經網路



* + 以凍結的 convolutional base 卷積基底進行從頭到尾完整的 model 訓練 + 建置模型

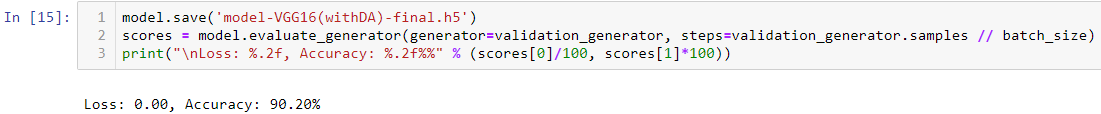


* + 模型訓練



* + 模型準確率 + 視覺化呈現

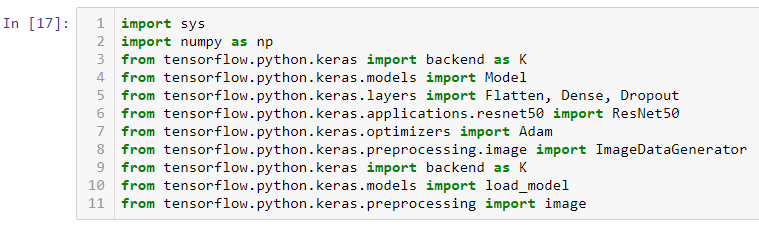
模型儲存為「model-VGG16(withDA)-final.h5」



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* **ResNet20**

1. 匯入套件

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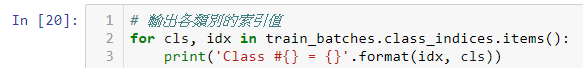
1. 參數設置



1. 透過 data augmentation 產生訓練與驗證用的影像資料

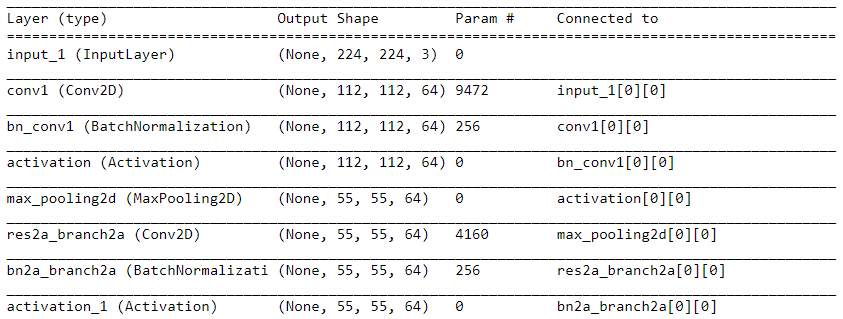


1. 輸出各類別的索引值



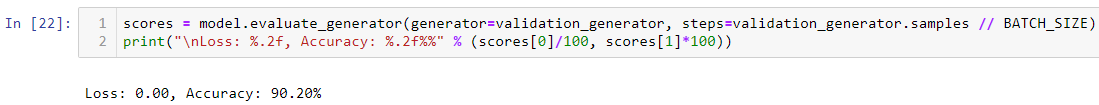


1. 模型架構



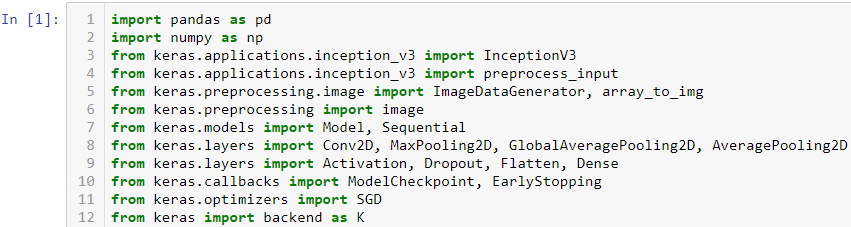
1. 模型準確率 + 視覺化呈現

模型儲存為「model-resnet50-final.h5」

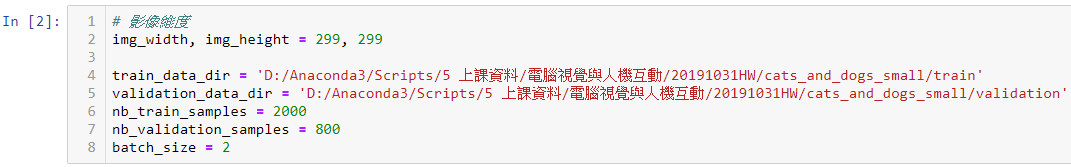


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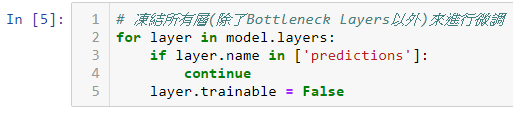
* **InceptionV3**
  1. 匯入套件

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* 1. 參數設置



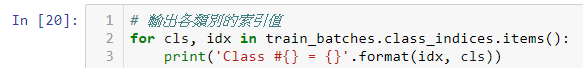
* 1. 凍結所有層(除了Bottleneck Layers以外)來進行微調透



* 1. 透過 data augmentation 產生訓練與驗證用的影像資料

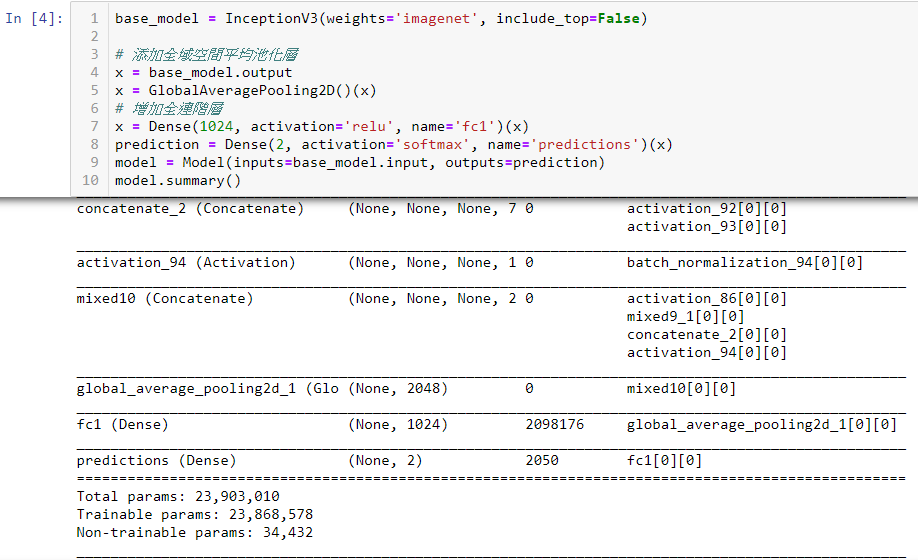


* 1. 輸出各類別的索引值



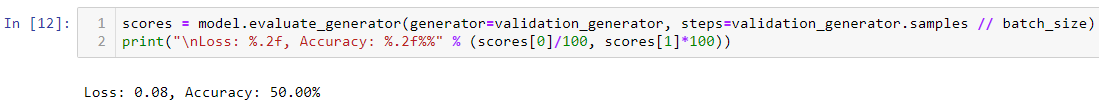


* 1. 模型架構



* 1. 模型準確率 + 視覺化呈現

模型儲存為「model-inceptionv3-final2.h5」



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