重構動機

問題一 處理 DS, ML, DL 專案時,依賴 JUPYTER NOTEBOOK 的特性 一條龍式地完成一個方法、專案,而沒有使用到任何軟體設計技巧

```
    Import, hyperparameters

Functions
   Sentence Encoding
                                      [] 1 import tensorflow_datasets as tfds
   Positional Encoding
                                            2 import tensorflow as tf
      Mask 1: pad masking
                                           5 import numby as no
      Mask 2: look ahead masking
                                           6 import matplotlib.pyplot as plt
      Build mask API
                                           8 from IPython. display import clear_output
   Scaled dot product Attention
   Multi-head Attention
                                      [ ] 1 BUFFER_SIZE = 20000
                                            2 BATCH_SIZE = 64
   Point wise feed forward network
                                        3 MAX_LENGTH = 40
   Encoder and Decoder
                                            4 EPOCHS = 20
      Encoder layer
                                           6 num_layers = 4
      Decoder layer
                                           7 d_model = 128
      Encoder
                                           9 num_heads = 8
                                           11 dropout_rate = 0.1
   Transformer
Data preprocessing

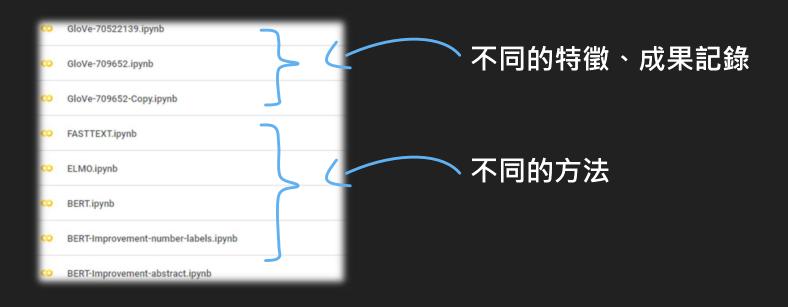
    Functions

Define Optimizer
```

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問題二

雖然是解決同一個專案問題,但為了想要保存每個 NOTEBOOK 的特徵、成果,卻用最土法煉鋼的方式,寫出好幾個差不多的程式



專案語言

Python

與 JAVA 的不同

動態類型語言 (OVERLOADING)

```
class Some:
    pass

s = Some()

s.name = "some"
print(s.name) # "some"

s.hello = lambda: print("hello")
s.hello() # "hello"
```

一切皆為物件

```
def apply(func, element):
    print(func(element))

def mul(x): return x * 2
  def div(x): return x // 2

apply(mul, 2) # 4
  apply(div, 2) # 1
```

DESIGN PATTERN 參考

faif / python-patterns ★ 26.2k zedr / clean-code-python ★ 2.4k

AICUP 2020

專案主題

- Deidentification of medical data
- Named Entity Recognition

醫師:你有做超音波嘛,那我們來看報告,有些部分有紅字耶。民眾:紅字是甚麼意思?醫師:就是肝功能有比較高,肝功能68,就是這個ALP是68,這樣比較高,正常應是50以下。

專案架構

- Data preprocessing method
- O Embedding method
- Machine learning method
- Deep learning method
- Emsemble method
- O Evaluation method
- O Upload method

