Artificial Intelligence Final Report Assignment 問題3 (Problem 3)

レポート解答用紙 (Report Answer Sheet)

Group Leader

学生証番号 (Student ID): 20521180

名前(Name): Trương Quốc Đạt

Group Members

学生証番号 (Student ID): 20521729

名前(Name): Nguyễn Triệu Kim Oanh

学生証番号 (Student ID): 20521714

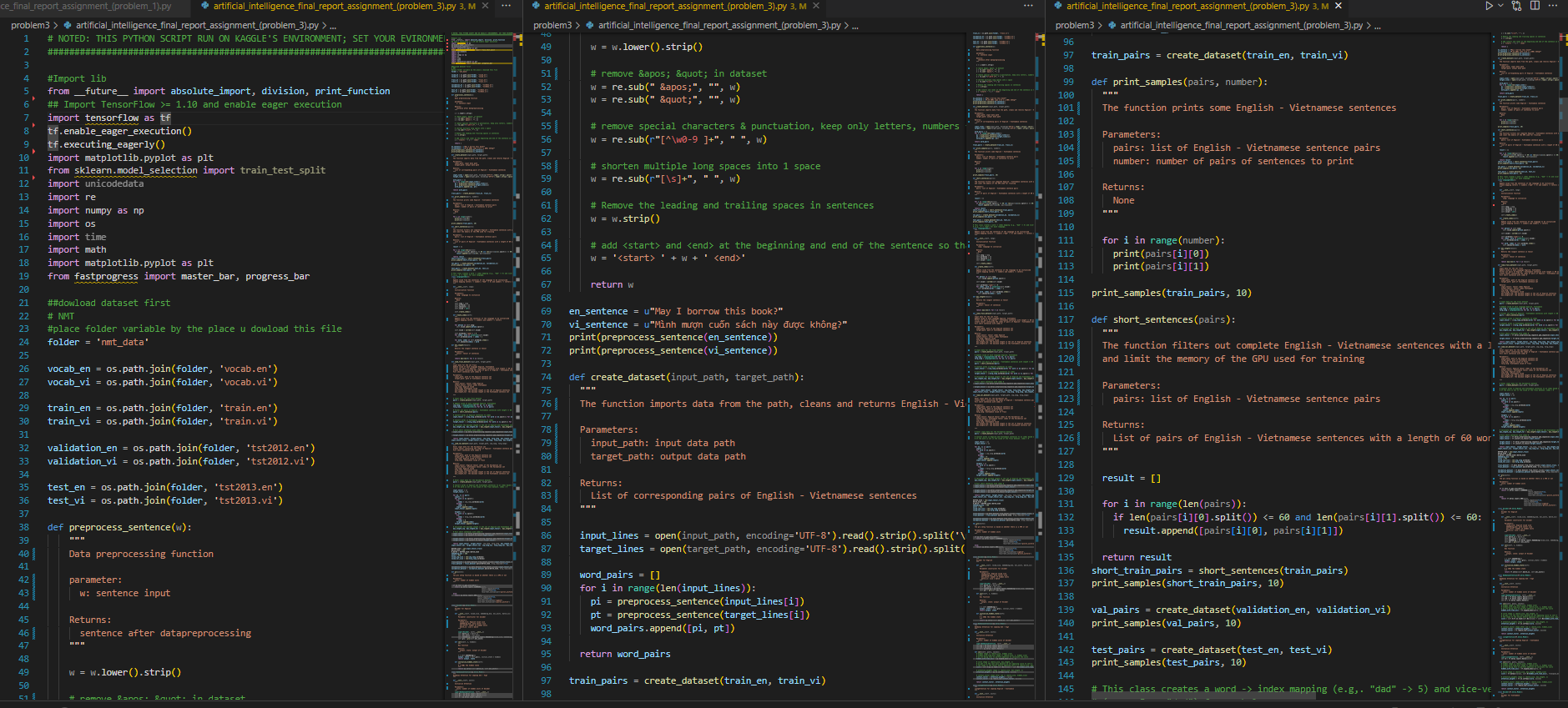
名前(Name): Nguyễn Phan Uyển Nhi

学生証番号 (Student ID): 20521505

名前(Name): Trần Ngô Tuấn Kiệt

問題3 (Problem 3)のレポート

### Program

A screen shot of a computer program

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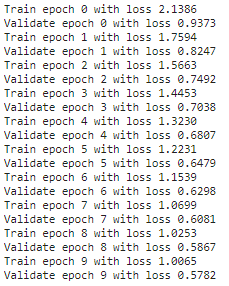
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Description automatically generatedA screenshot of a computer screen

Description automatically generated

### Execution Results

**Loss in each epoch:**



**Average Bleu Score in Test dataset:**

A screenshot of a computer code

Description automatically generated

### Explanation

**Preprocessing dataset:**

* Remove &apos; &quot; in dataset.
* Remove special characters & punctuation, keep only letters, numbers from 0-9 and spaces.
* Shorten multiple long spaces into 1 space.
* Remove the leading and trailing spaces in sentences.
* Add <start> and <end> at the beginning and end of the sentence so that the model knows where to start and end the prediction.
* Create index: Update vocab from the sentences of the language to be initialized
* Create mapping letters -> numbers and numbers -> letters

**Parameter Tuning:**

* BUFFER\_SIZE
* BATCH\_SIZE = 256
* N\_BATCH = BUFFER\_SIZE//BATCH\_SIZE
* embedding\_dim = 256
* units = 512
* vocab\_inp\_size
* vocab\_tar\_size

**Encode, decode**

**Attention:**

* BahdanauAttention
* LuongAttention