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Main Challenges for Homework #2

Challenge 1: the shebang

In the beginning, I got a lot of syntax errors especially around line

      def main(args: argparse.Namespace) -> **None**

where the : and -> were pointed out as errors. The fix was unexpectedly easy though – after some research online, the potential problem seemed to lie in the versions of python in my MacBook, so I tried to change the shebang to #!/usr/bin/env python3, enforcing Python 3 to be used, and the problem was magically gone.

Challenge 2: random function and None type

In purpose of keeping a back-up version of unshuffled corpus, I introduced a line:

      corpus_shuffled = random.Random(args.seed).shuffle(corpus)

and used the variable corpus_shuffled afterwards in the program as the input of my wtite_tags function. However, there was an error saying: TypeError: 'NoneType' object is not subscriptable. First I thought it was due to my possible incorrect usage of random.Random object, so I decided to omit it and instead using the following codes:

      random.seed(args.seed)

      corpus_shuffled = random.shuffle(corpus)

Yet the same error persisted. That's when I realized the root of the problem was not random.Random object but something else. According to the error message, the program somehow produced a variable of type 'None' when it wasn't supposed to, and the only new variable, compared with my last working version, was corpus_shuffled. Further research revealed that I had used random.shuffle wrong – it does not return anything. So I re-organized my code and it finally worked, though I didn't get to keep a back-up version as I had wanted.