# Python AsyncIO / Billiard Assignment

### Statement

Write a python program that given a Keyword, finds out whether its a miss-spell and if so then, returns the keyword suggestions and possible correct keyword as shown in example below:

| # python3 detect\_misspelled\_keywords.py misspell\_one misspell\_two ❯ python3 detect\_misspelled\_keywords.py iphrone appel [  {  "keyword": "iphrone",  "suggestions": [  "iphone 13",  "iphone 13 pro max",  "iphone 12 pro max",  "iphone 13 price in pakistan",  "iphone x price in pakistan",  "iphone 11 price in pakistan",  "iphone x",  "iphone 7 price in pakistan",  "iphone 11",  "iphone 12 price in pakistan"  ],  "is\_misspelled": true,  "correct\_keyword": "iphone x",  "reason": null  },  {  "keyword": "appel",  "suggestions": [  "appellate meaning in urdu",  "appellate meaning",  "appellate",  "appellant",  "appellate tribunal",  "apple",  "appellation",  "appellate tribunal inland revenue",  "appellate court",  "appellate jurisdiction"  ],  "is\_misspelled": true,  "correct\_keyword": "apple",  "reason": null  } ] |
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### Criteria for miss-spells

1. If a keyword is in any of the suggestions from google, it's not miss-spelled.
2. If a keyword's length is less than or equal to 2, it's not miss-spelled.
3. If a keyword has fewer words than the shortest suggestion from google and all the words match in order with the shortest suggestion then it's not a miss-spelled word.
4. When a keyword has more words than the shortest suggestion from Google, its miss-spelled.

### Criteria for correct keyword

if a miss-spell is detected according to the criteria above then the correct keyword should be the shortest keyword from the suggested keywords.

### Google suggestion API

| http://suggestqueries.google.com/complete/search?client=firefox&q={keyword\_goes\_here} |
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### NOTES

1. Implementation must use AsyncIO and Billiard
2. Solution needs to be linted with flake8 (Added as a pre-commit hook)
3. Test cases for the solution should be included in the submission
4. Solution must be submitted via git repository with proper README containing instructions on how to use this utility
5. `.gitignore` should take care of unnecessary files (if any) that is, they should not be pushed into the git repository