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Tracing the findKeyword Method

Given the following pseudocode, trace out the given calls to findKeyword. To receive full credit, trace the code, fill in the worksheet, save and submit.

Step 1: Trim statement and assign this to phrase.

Step 2: Assign psn to the first occurrence of goal after startPos. Case doesn’t matter. (Be careful if it is part of another word, it still counts. For example, if you are looking for “no” and you find “know”, “no” is in “know”.

Step 3: Repeat the following while psn >= 0

Step a: Set before and after to “ “

Step b: if psn > 0 then

before is the substring that is the character directly in front of where goal is found.

Step c: if (psn + the length of goal < phrase’s length – 1)

after is the substring that is the character directly after the end of the goal.

Step d: if (before is not a letter a – z and after is not a letter a – z)

return psn and we are done.

Step e: psn will be the first occurrence of goal after psn + 1

Step f: repeat the above steps

Step 4: if psn is -1 return -1.

1. Trace the above with the following information, add space to the table as needed:

| statement | goal | startPos |
| --- | --- | --- |
| She’s my sister | sister | 0 |

| phrase | psn | before | after |
| --- | --- | --- | --- |
| She’s my sister | 9 | “ “ | Null (out of index) |

2. Trace the above with the following information, add space to the table as needed:

| statement | goal | startPos |
| --- | --- | --- |
| Brother Tom is helpful | brother | 0 |

| phrase | psn | before | after |
| --- | --- | --- | --- |
| Brother Tom is helpful | 0 | Null (out of index) | “ “ |

3. Trace the above with the following information, add space to the table as needed:

| statement | goal | startPos |
| --- | --- | --- |
| I can’t catch wild cats. | cat | 0 |

| phrase | psn | before | after |
| --- | --- | --- | --- |
| I can’t catch wild cats | 19 | “ “ | “.” |

4. Trace the above with the following information, add space to the table as needed:

| statement | goal | startPos |
| --- | --- | --- |
| I know nothing about snow plows. | no | 0 |

| phrase | psn | before | after |
| --- | --- | --- | --- |
| I know nothing about snow plows. | 3 | “k” | “w” |