**Programming Questions**

**1) K’th Non-repeating Character :**

Given a text file, read the text file and for each word present in the text file find the k-th Non-repeating character. Then construct a dataframe containing the word, character, and k value and save it as an excel file.

Example :

Given a string and a number k, find the k-th non-repeating character in the string. If it doesn’t exist fill it with #

Input : str = “Automated Feature Engineering in Python”, k = 3

Output : Excel

|  |  |  |
| --- | --- | --- |
| word | character | k |
| Automated | m | 3 |
| Feature | t | 3 |
| Engineering | # | 3 |
| in | # | 3 |
| ... | ... | ... |

**2) Vowel Count :**

Given a text file, read the text file and for each word present in the text file find the count of vowels (a,e,i,o,u) and consonant count. Construct a Dataframe and save it as an excel file.

Example :

Input : str = “Automated Feature Engineering in Python”

Output : Dataframe

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Word | A | E | I | O | U | Consonant |
| Automated | 2 | 1 | 0 | 1 | 1 | 4 |
| Feature | 1 | 2 | 0 | 0 | 1 | 3 |
| Engineering | 0 | 3 | 2 | 0 | 0 | 6 |
| in | 0 | 0 | 1 | 0 | 0 | 1 |
| Python | 0 | 0 | 0 | 1 | 0 | 5 |