Digital assignment 2

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First question:

1) Write a c program to find the number of words, vowels, consonants, space and special characters in a string INPUT:

*Nothing is impossible in this world.

```
OUTPUT:
Words = 6
Vowels = 10
Consonants = 20Space = 5
Special Characters = 2
```

Answer:

```
#include <stdio.h>
#include <ctype.h>
int main() {
    char str[1000];
    int words = 0, vowels = 0, consonants = 0, spaces =
0, special_chars = 0;
    int i;
    printf("Enter a string: ");
    fgets(str, sizeof(str), stdin);
    for (i = 0; str[i] != '\0'; i++) {
        if (isalpha(str[i])) {
```

```
if (tolower(str[i]) == 'a' || tolower(str[i]) == 'e'
| | tolower(str[i]) == 'i' | | tolower(str[i]) == 'o' | |
tolower(str[i]) == 'u') {
         vowels++;
      } else {
         consonants++;
    } else if (isspace(str[i])) {
       words++;
       spaces++;
    } else {
       special chars++;
}
words++;
printf("Words = %d\n", words);
printf("Vowels = %d\n", vowels);
printf("Consonants = %d\n", consonants);
printf("Space = %d\n", spaces);
printf("Special Characters = %d\n", special_chars);
  return 0;
}
```