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20BCS021

PROGRAMMING LAB

1st November 2021

CODE: (code pasted in this format for readability)

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    char ch = 'y';
    char text[400];
    int i=0, j, c=0;
    printf("\nFAIZAN CHOUDHARY\n20BCS021\n\n");

    do
    {
        printf("\nEnter the piece of text (terminating with $): \n");
        scanf("%[^$]", &text);

        long no_of_spaces = 0, no_of_tabs =0, no_of_sentences = 0, no_of_vowels = 0;
        // long no_of_lines = 0;

        for (i=0; text[i]!='\0'; i++)
        {
            if (text[i]== ' ')
                no_of_spaces++;
            if (text[i]== '\t')
                no_of_tabs++;
            if (text[i]== '.' || text[i]== '!' || text[i]== '?')
                no_of_sentences++;
            // if (text[i] == '\n');
            // no_of_lines++;
            if (text[i]=='A' || text[i]=='a' || text[i]=='E' || text[i]=='e' ||
text[i]=='I' || text[i]=='i' || text[i]=='O' || text[i]=='o' || text[i]=='U' ||
text[i]=='u')
                no_of_vowels++;

        }

        // to format the extra spaces to one space
        i=0, j=0;
        char second[400];
        while (text[i] != '\0')
        {
```

```

        if (text[i] == ' ')
        {
            int temp = i+1;
            if (text[temp] != '\0')
            {
                while (text[temp] == ' ' && text[temp] != '\0')
                {
                    if (text[temp] == ' ')
                        i++;
                    temp++;
                }
            }
            second[j] = text[i];
            i++;
            j++;
        }
        second[j] = '\0';

printf("\nNumber of spaces : %d\n", no_of_spaces);
printf("Number of tabs: %d\n", no_of_tabs);
printf("Number of sentences: %d\n", no_of_sentences);
// printf("Number of lines: %d\n", no_of_lines);
printf("Number of vowels: %d\n", no_of_vowels);

printf("\nFormatted piece of text:\n");
for (i=0; second[i] != '\0'; i++)
    printf("%c", second[i]);
printf("\n");

A:
printf("\nDo you want to enter more? (Y/N): ");
getchar();
getchar();
scanf("%c", &ch);
} while (ch == 'y' || ch == 'Y');

return 0;
}

```

OUTPUT:

```
FAIZAN CHOUDHARY  
20BCS021
```

```
Enter the piece of text (terminating with $):
```

```
Hello I am Faizan Choudhary, a student of Jamia Millia Islamia,      New Delhi.  
I live in Mumbai and I love      reading books.  
How are you?  
I hope you are doing great!$
```

```
Number of spaces : 30
```

```
Number of tabs: 2
```

```
Number of sentences: 4
```

```
Number of vowels: 59
```

```
Formatted piece of text:
```

```
Hello I am Faizan Choudhary, a student of Jamia Millia Islamia,      New Delhi.  
I live in Mumbai and I love reading books.  
How are you?  
I hope you are doing great!
```

```
Do you want to enter more? (Y/N): █
```