DIGITAL ASSIGNMENT 2

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1. Write a C program that accepts a string as input, print the length of the string and display the word frequency, then use pointers to find the first repeated and non-repeated character in the string, and print the output:

POSSIBLE TEST CASES:

INPUT:

SUJITHRA

OUTPUT:

Length of the string is: 8

Word frequency is: 8

No repeated characters found in the string.

First non-repeated character is: S

#2 INPUT:

ASSDFG

OUTPUT:

Length of the string is: 6

Word frequency is: 5

First repeated character is: S

First non-repeated character is: A

#3 INPUT:

RUDRESH

OUTPUT:

Length of the string is: 7

Word frequency is: 6

First repeated character is: R

First non-repeated character is: U

CODE:

#include <stdio.h>

void print\_output(char \*str, int len);

int main()

{

char str[100];

int len;

printf("Enter a string: ");

gets(str);

len = strlen(str);

print\_output(str, len);

return 0;

}

void print\_output(char \*str, int len)

{

int i, j, word\_freq = 1;

char \*first\_repeat = NULL, \*first\_non\_repeat = NULL;

int freq\_arr[26] = {0};

for (i = 0; i < len; i++)

{

if (str[i] == ' ')

{

word\_freq++;

}

else

{

freq\_arr[str[i] - 'a']++;

if (first\_repeat == NULL && freq\_arr[str[i] - 'a'] == 2)

{

first\_repeat = &str[i];

}

else if (first\_non\_repeat == NULL && freq\_arr[str[i] - 'a'] == 1)

{

first\_non\_repeat = &str[i];

}

}

}

printf("Length of the string is: %d\n", len);

printf("Word frequency is: %d\n", word\_freq);

if (first\_repeat != NULL)

{

printf("First repeated character is: %c\n", \*first\_repeat);

}

else

{

printf("No repeated characters found in the string.\n");

}

if (first\_non\_repeat != NULL)

{

printf("First non-repeated character is: %c\n", \*first\_non\_repeat);

}

else

{

printf("No non-repeated characters found in the string.\n");

}

}

return 0;

}