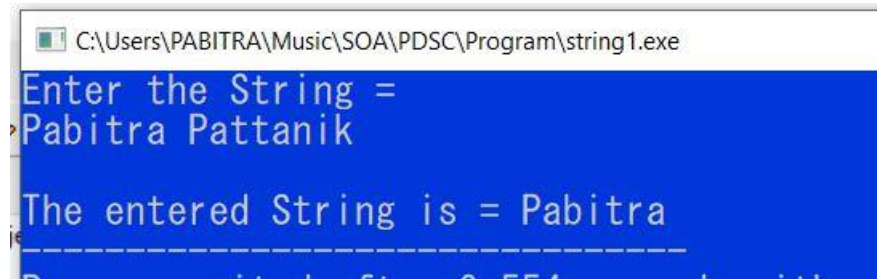


Assignment 8 – Pabitra Pattanaik

1. Read from a terminal using scanf function and print using printf function ?

Answer :

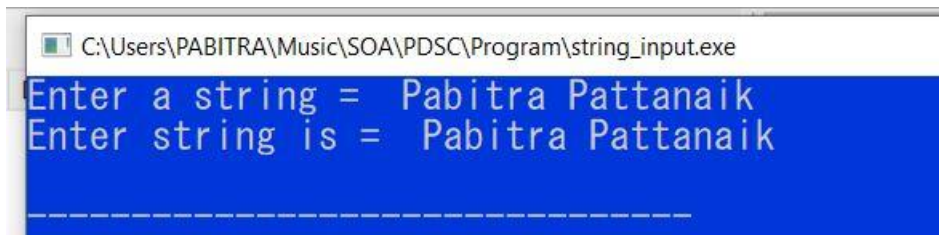
```
#include<stdio.h>
void main()
{
char st[50];
printf("Enter the String = \n");
scanf("%s",st);
printf("\nThe entered String is = %s",st);
}
```



2. Read a lines of text from a terminal using fgets function and print using puts function ?

Answer :

```
#include<stdio.h>
#include <string.h>
int main(){
char str[50];
printf("Enter a string = ");
gets(str);
printf("Enter string is = ");
puts(str);
return 0;
}
```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\string_input.exe
Enter a string = Pabitra Pattanaik
Enter string is = Pabitra Pattanaik
-----
```

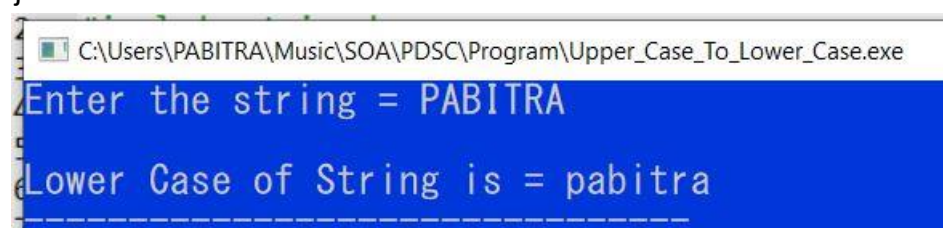
3. Convert :

A. Upper case to lower case

Answer :

```
#include<stdio.h>
#include<string.h>
void main()
{
    char str[25];
    int i;
    printf("Enter the string = ");
    scanf("%s",str);

    for(i=0;i<=strlen(str);i++)
    {
        if(str[i]>=65&&str[i]<=90)
        {
            str[i]=str[i]+32;
        }
    }
    printf("\nLower Case of String is = %s",str);
}
```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Upper_Case_To_Lower_Case.exe
Enter the string = PABITRA
Lower Case of String is = pabitra
-----
```

B. Lower case to upper case

Answer :

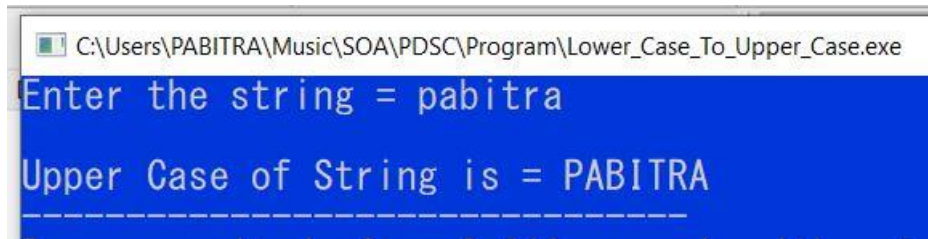
```
#include<stdio.h>
#include<string.h>
void main()
{
```

```

char str[25];
int i;
printf("Enter the string = ");
scanf("%s",str);
for(i=0;i<=strlen(str);i++)
{
    if(str[i] >= 'a' && str[i] <= 'z')
    {

        str[i] = str[i] - 32;
    }
}
printf("\nUpper Case of String is = %s",str);
}

```



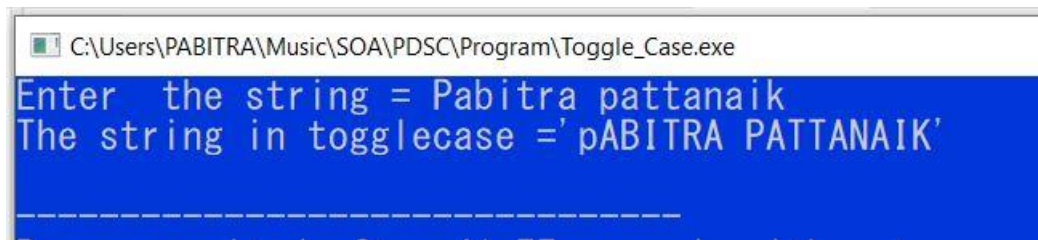
C. Toggle case

Answer :

```

#include <string.h>
void main()
{
    char s[50];
    int i;
    printf("Enter the string = ");
    gets(s);
    for(i=0;s[i];i++)
    {
        if(s[i]>=65 && s[i]<=90)
            s[i]+=32;
        else if(s[i]>=97 && s[i]<=122)
            s[i]-=32;
    }
    printf("The string in togglecase = '%s'\n",s);
}

```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Toggle_Case.exe
Enter the string = Pabitra pattanaik
The string in togglecase ='pABITRA PATTANAik'
```

D. Sentence case

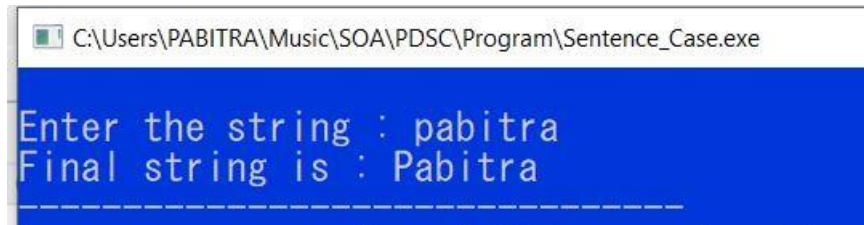
Answer :

```
#include <stdio.h>
#include <string.h>
void main()
{
    int length=0,i=0;
    char string[50];
    printf("\nEnter the string : ");
    gets(string);
    length = strlen(string);
    for(i=0;i<length;i++)
    {
        if( (i==0) && (string[i]>='a' && string[i]<='z'))
        {
            string[i] = string[i] - 32;
        }
        else if(string[i]==' ')
        {
            if(string[i+1] == ' ')
            {
                if(string[i+2]>='a' && string[i+2]<='z')
                {
                    string[i+2] = string[i+2] - 32;
                }
            }
        }
        else
        {
            if(string[i+1]>='a' && string[i+1]<='z')
            {
                string[i+1] = string[i+1] - 32;
            }
        }
    }
}
```

```

    }
}
printf("Final string is : %s",string);
}

```



```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Sentence_Case.exe
Enter the string : pabitra
Final string is : Pabitra
-----

```

4. Perform string concatenation (with and without string handling functions) ?

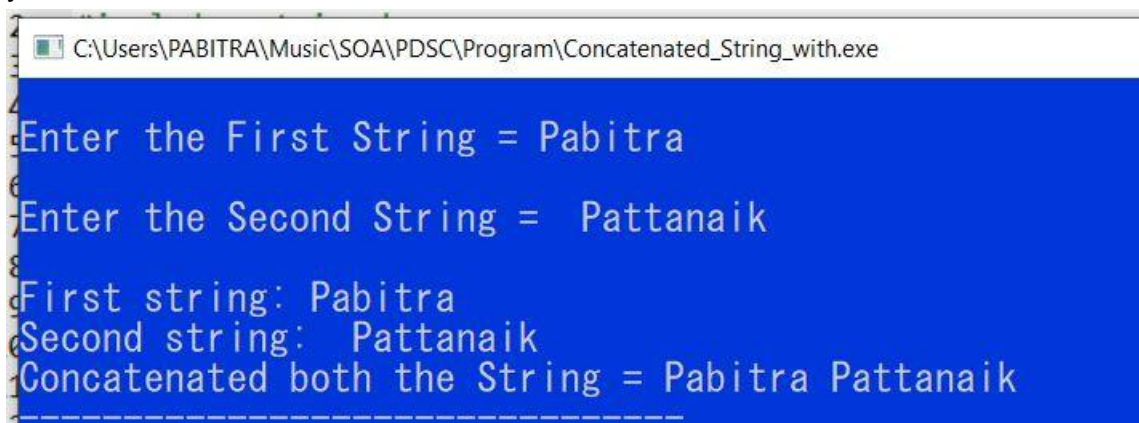
Answer :

With using string handling functions

```

#include <stdio.h>
#include <string.h>
void main()
{
    char str1[50],str2[50];
    printf("\nEnter the First String = ");
    gets(str1);
    printf("\nEnter the Second String = ");
    gets(str2);
    printf("\nFirst string: %s", str1);
    printf("\nSecond string: %s", str2);
    printf("\nConcatenated both the String = %s", strcat(str1,str2));
}

```



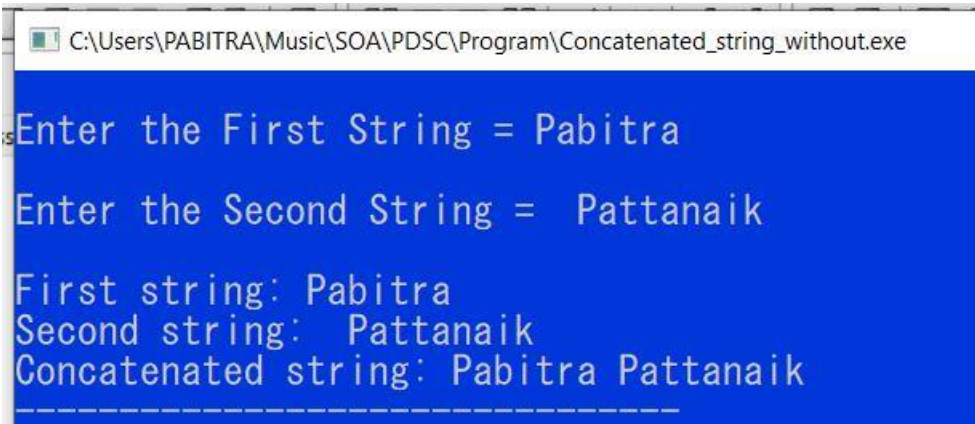
```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Concatenated_String_with.exe
Enter the First String = Pabitra
Enter the Second String = Pattanaik
First string: Pabitra
Second string: Pattanaik
Concatenated both the String = Pabitra Pattanaik
-----

```

Without using string handling functions

```
#include <stdio.h>
void main()
{
    char str1[50],str2[50],str3[100];
    int i = 0, j = 0;
    printf("\nEnter the First String = ");
    gets(str1);
    printf("\nEnter the Second String = ");
    gets(str2);
    printf("\nFirst string: %s", str1);
    printf("\nSecond string: %s", str2);
    while (str1[i] != '\0')
    {
        str3[j] = str1[i];
        i++;
        j++;
    }
    i = 0;
    while (str2[i] != '\0')
    {
        str3[j] = str2[i];
        i++;
        j++;
    }
    str3[j] = '\0';
    printf("\nConcatenated string: %s", str3);
}
```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Concatenated_string_without.exe
Enter the First String = Pabitra
Enter the Second String =  Pattanaik
First string: Pabitra
Second string:  Pattanaik
Concatenated string: Pabitra Pattanaik
-----
```

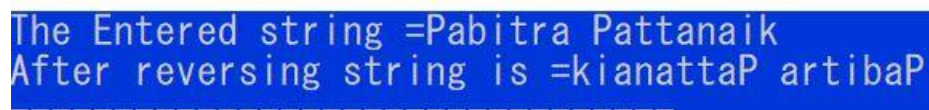
5. Perform string reversal (with and without string handling functions) ?

Answer :

With using string handling functions

```
#include<stdio.h>
#include<string.h>
void main()
{
    char str[50] = "Pabitra Pattanaik";
    printf("The Entered string =%s\n",str);
    printf("After reversing string is =%s",strrev(str));
}
```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Reverse_String_with.exe

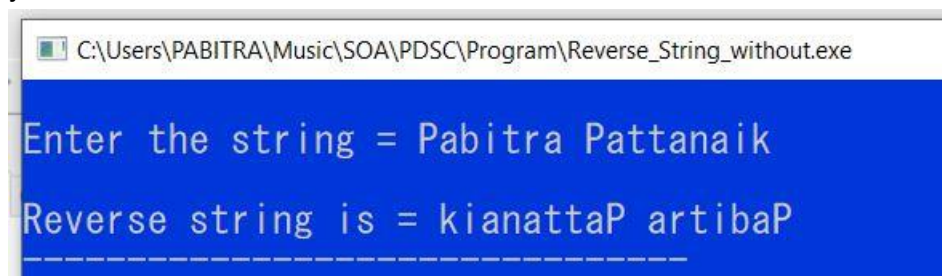


```
The Entered string =Pabitra Pattanaik
After reversing string is =kianattaP artibaP
-----
```

Without using string handling functions

```
#include<stdio.h>
#include<string.h>
void main()
{
    char str[50], temp;
    int i, j = 0;
    printf("\nEnter the string = ");
    gets(str);
    i = 0;
    j = strlen(str) - 1;
    while (i < j)
    {
        temp = str[i];
        str[i] = str[j];
        str[j] = temp;
        i++;
        j--;
    }
    printf("\nReverse string is = %s", str);
}
```

```
}
```



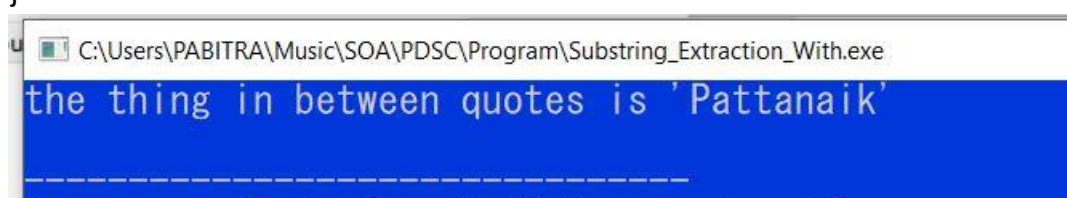
```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Reverse_String_without.exe  
Enter the string = Pabitra Pattanaik  
Reverse string is = kianattaP artibaP  
-----
```

6. Perform substring extraction (with and without string handling functions) ?

Answer :

With using string handling functions

```
#include <stdio.h>  
#include <string.h>  
int main()  
{  
    const char* lineConst = "Pabitra \"Pattanaik\"";  
    char line[256];  
    char *subString;  
    strcpy(line, lineConst);  
    subString = strtok(line, "\"");  
    subString = strtok(NULL, "\"");  
    printf("the thing in between quotes is '%s'\n", subString);  
    return 0;  
}
```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Substring_Extraction_With.exe  
the thing in between quotes is 'Pattanaik'  
-----
```

Without using string handling functions

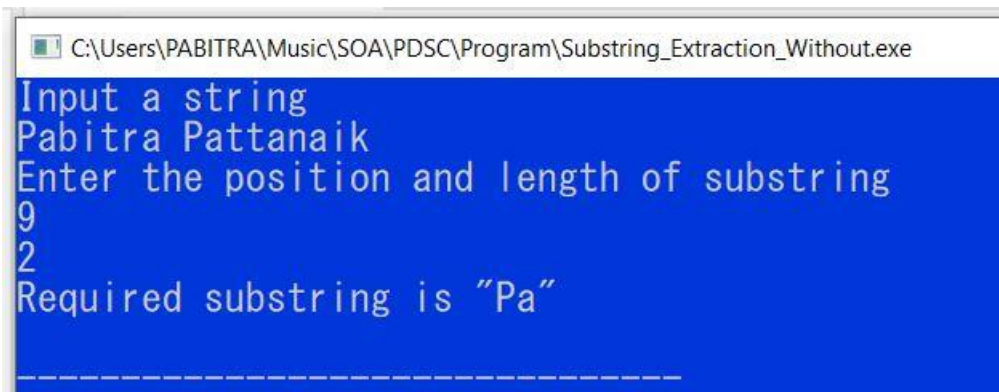
```
#include <stdio.h>  
int main()  
{  
    char string[1000], sub[1000];  
    int position, length, c = 0;  
    printf("Input a string\n");  
    gets(string);
```



```

printf("Enter the position and length of substring\n");
scanf("%d%d", &position, &length);
while (c < length) {
    sub[c] = string[position+c-1];
    c++;
}
sub[c] = '\0';
printf("Required substring is \"%s\"\n", sub);
return 0;
}

```



```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Substring_Extraction_Without.exe
Input a string
Pabitra Pattanaik
Enter the position and length of substring
9
2
Required substring is "Pa"
-----

```

7. Copy one string into another and count the no of elements copied. (with and without string handling functions) ?

Answer :

With using string handling functions

```

#include <stdio.h>
#include <string.h>
void main()
{
    char str1[50], str2[50];
    printf("Enter a string = ");
    gets(str1);
    strcpy(str2, str1);
    printf("Copied string = %s\n", str2);
    printf("\nNumber of element copied = %d", strlen(str2));
}

```

```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Copying_string_element_with.exe
Enter a string = Pabitra
Copied string = Pabitra
Number of element copied = 7
-----
```

Without using string handling functions

```
#include<stdio.h>
void main()
{
char str1[50], str2[50];
int i;
printf("Enter a string = ");
scanf("%s", str2);
for(i=0; str2[i]!='\0'; i++)
str1[i]=str2[i];
str1[i]='\0';
printf("\n");
printf("Copied string = %s", str1);
printf("\nNumber of element copied = %d", i);
}
```

```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Copying_string_element_without.exe
Enter a string = Pabitra
Copied string = Pabitra
Number of element copied = 7
-----
```

8. Read a string and prints if it is a palindrome or not ?

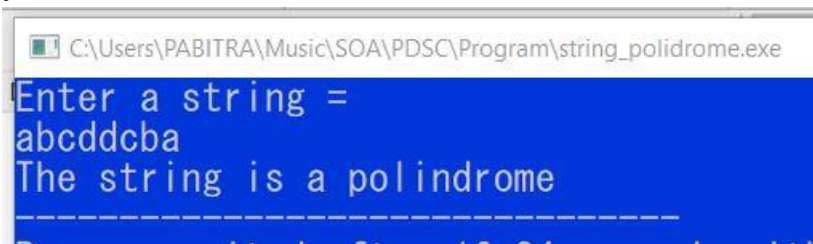
Answer :

```
#include<stdio.h>
#include<string.h>
void main()
{
char st[50];
int i,len,flag = 0;
printf("Enter a string = \n");
scanf("%s",st);
```

```

len=strlen(st);
for(i=0;i<len;i++)
{
    if(st[i] != st[len-i-1])
    {
        flag=1;
        break;
    }
}
if(flag==1)
{
    printf("The string is not a polindrome");
}
else
{
    printf("The string is a polindrome");
}
}

```



9. Read a line of text and count all occurrences of particular word ?

Answer :

```

#include <stdio.h>
#include <string.h>
void main()
{
    char str[100], sub[100];
    int count = 0, count1 = 0;
    int i, j, l, l1, l2;
    printf("\nEnter a string = ");
    scanf("%[^\\n]s", str);
    l1 = strlen(str);
    printf("\nEnter a substring = ");

```

```

scanf("%[^\\n]s", sub);
l2 = strlen(sub);
for (i = 0; i < l1;)
{
    j = 0;
    count = 0;
    while ((str[i] == sub[j]))
    {
        count++;
        i++;
        j++;
    }
    if (count == l2)
    {
        count1++;
        count = 0;
    }
    else
        i++;
}
printf("%s occurs %d times in %s", sub, count1, str);
}

```

```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Count All occurancer.exe
Enter a string = Pabitra Pattanaik
Enter a substring = a
a occurs 5 times in Pabitra Pattanaik
-----

```

10. Read a string and rewrite it in the alphabetical order ?

Answer :

```

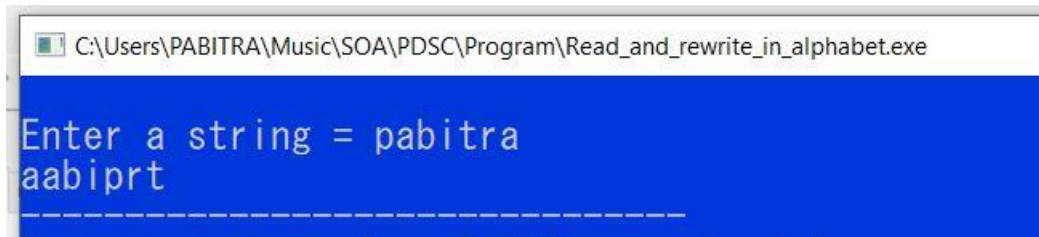
#include<stdio.h>
#include<string.h>
void main()
{
    char str[20], k;

```

```

int i, j;
printf("\nEnter a string = ");
scanf("%s", str);
for(i=0; str[i] != '\0'; i++)
{
    for(j=i+1; str[j] != '\0'; j++)
    {
        if(str[i] > str[j])
        {
            k= str[i];
            str[i] = str[j];
            str[j] = k;
        }
    }
}
printf("%s", str);
}

```



11. Print the words ending with letter s ?

Answer :

```

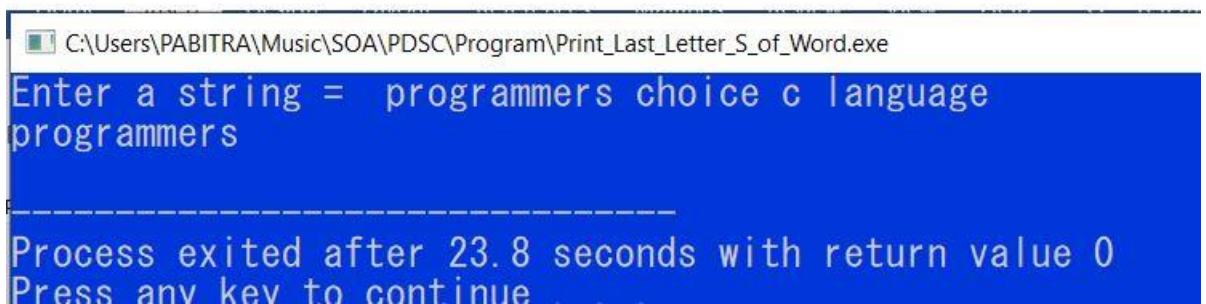
#include <stdio.h>
#include <string.h>
int main()
{
    char str[50];
    int i, t, j, len;
    printf("Enter a string = ");
    scanf("%s", str);
    len = strlen(str);
    str[len] = ' ';
    for (t = 0, i = 0; i < strlen(str); i++)
    {
        if ((str[i] == ' ') && (str[i - 1] == 's'))

```

```

    {
        for (j = t; j < i; j++)
            printf("%c", str[j]);
        t = i + 1;
        printf("\n");
    }
else
{
    if (str[i] == ' ')
    {
        t = i + 1;
    }
}
}
return 0;
}

```



```

C:\Users\PABITRA\Music\SOA\PDSC\Program\Print_Last_Letter_S_of_Word.exe
Enter a string =  programmers choice c language
programmers
-----
Process exited after 23.8 seconds with return value 0
Press any key to continue

```

12. Delete all repeated words in the line of text ?

Answer :

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int main ()
{
    char str[100], word[100], twoD[10][30];
    int i = 0, j = 0, k = 0, len1 = 0, len2 = 0, l = 0;
    printf ("Enter the string\n");
    gets (str);
    for (i = 0; str[i] != '\0'; i++)
    {
        if (str[i] == ' ')

```

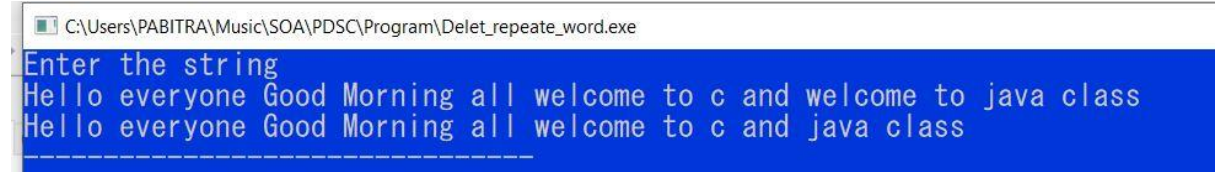
```

        {
            twoD[k][j] = '\0';
            k ++;
            j = 0;
        }
        else
        {
            twoD[k][j] = str[i];
            j ++;
        }
    }
    twoD[k][j] = '\0';
    j = 0;
    for (i = 0; i < k; i++)
    {
        int present = 0;
        for (l = 1; l < k + 1; l++)
        {
            if (twoD[l][j] == '\0' || l == i)
            {
                continue;
            }

            if (strcmp (twoD[i], twoD[l]) == 0)
            {
                twoD[l][j] = '\0';
                present = present + 1;
            }
        }
    }
    j = 0;
    for (i = 0; i < k + 1; i++)
    {
        if (twoD[i][j] == '\0')
            continue;
        else
            printf ("%s ", twoD[i]);
    }

```

```
}  
    return 0;  
}
```



```
C:\Users\PABITRA\Music\SOA\PDSC\Program\Delet_repeate_word.exe  
Enter the string  
Hello everyone Good Morning all welcome to c and welcome to java class  
Hello everyone Good Morning all welcome to c and java class  
-----
```