

LAB 6-STRING

Objective: The main objectives of this lab are to:

- ❖ Learn about how the character array can be used for representing line of text.
- ❖ Gain knowledge to copy one word into another, concatenate two words, and know the length of a word and also to compare two words.

Practice 1

Write a C program to enter a line of text from keyboard and display it.

Sample Code

```
#include <stdio.h>
int main(){
char cc[1000],ch;
int count=0;
printf("Enter text. Press enter to stop\n ");
while(ch!='\n') {
ch=getchar();
cc[count]=ch;
count++;
}
cc[count]='\0';
printf("%s", cc);
}
```

Sample Output

Enter text. Press enter to stop

I am Bangladeshi

I am Bangladeshi

Do it yourself

Write a program which reads your name from keyboard and output a list of ASCII codes which represent your name.

Practice 2

Write a program which will read a text and count the frequency (all occurrences) of a particular word.

Sample Code

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

void main()
{
    int i=0,j=0,count=0;
    char str1[100],str2[20],str3[20];
    printf("Enter the text: ");
    gets(str1);
    printf("Enter word to count: ");
    gets(str2);
    while(str1[i]!='\0')
    {
        while(str1[i]!=' '&&str1[i]!='\0')
            str3[j++]=str1[i++];
        str3[j]='\0';
        j=0;
        if((strcmp(str2,str3))==0)
            count++;
        if(str1[i]=='\0')
            break;
        else
            i++;
    }
    printf("No. of words are %d",count);
}
```

Sample Output

Enter the text: aaaa dghj aaaa dddd dgjh fff

Enter word to count: aaaa

No. of words are: 2

Do it yourself

Write a C program to count the frequency of a character in a line of text.

Practice 3

Write a C program to reverse a string using `strrev()` function.

Sample Code

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

int main()
{
    char arr[100];

    printf("Enter a string to reverse\n");
    gets(arr);

    strrev(arr);

    printf("Reverse of entered string is \n%s\n",arr);

    return 0;
}
```

Sample Output

```
Enter a string to reverse
bangladesh
Reverse of entered string is
Hsedalgnab
```

Do it yourself

Write a C program to reverse a string without using `strrev()` function.

Practice 4

Write a C program to compare two strings.

Sample Code

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

int main()
{
    char a[100], b[100];

    printf("Enter the first string\n");
    gets(a);
    printf("Enter the second string\n");
    gets(b);
    if (strcmp(a,b) == 0)
```

```

    printf("Entered strings are equal.\n");
else
    printf("Entered strings are not equal.\n");

return 0;
}

```

Sample Output

```

Enter the first string
Cat
Enter the second string
Dog
Entered strings are not equal.

```

Do it yourself

Write a C program to concatenate three strings.

Practice 5

Write a C program to copy one string into another without using library function.

Sample Code

```

#include<stdio.h>

int main() {
    char s1[100], s2[100];
    int i;

    printf("\nEnter the string :");
    gets(s1);

    i = 0;
    while (s1[i] != '\0') {
        s2[i] = s1[i];
        i++;
    }

    s2[i] = '\0';
    printf("\nCopied String is %s ", s2);

    return (0);
}

```

Sample Output

```

Enter the string :
man
Copied String is
man

```

Do it yourself

Write a C program to copy one string into another using library function.

Practice 6

Write a C program to check whether a string is palindrome or not.

Sample Code

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

int main()
{
    char a[100], b[100];

    printf("Enter the string to check if it is a palindrome\n");
    gets(a);

    strcpy(b,a);
    strrev(b);

    if (strcmp(a,b) == 0)
        printf("Entered string is a palindrome.\n");
    else
        printf("Entered string is not a palindrome.\n");

    return 0;
}
```

Sample output

Enter the string to check if it is a palindrome

Wow

Entered string is a palindrome.

Do it yourself

Write a C program to check whether a string is palindrome or not without using library function.