**Assignment - 18 A Job Ready Bootcamp in C++, DSA and IOT MySirG**

**String and Functions in C Language**

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//1. Write a function to calculate length of the string

#include<stdio.h>

#include<string.h>

int main()

{

    char s[10];

    printf("Enter the strings:");

    gets(s);

    printf("Length of the strings: %d",strlen(s));

    return 0;

}

//2. Write a function to reverse a string

#include<stdio.h>

#include<string.h>

int main()

{

    char s[10];

    printf("Enter the strings:");

    gets(s);

    printf("Reverse of the strings: %s",strrev(s));

    return 0;

}

//3. Write a function to compare two strings

#include<stdio.h>

#include<string.h>

int main()

{

    char s[20],s2[20];

    printf("Enter the strings:");

    gets(s);

    printf("Enter the second strings:");

    gets(s2);

    if(strcmp(s,s2)==0)

    {

        printf("String are equal:");

    }

    else

    {

        printf("String are not equal:");

    }

    return 0;

}

//4. Write a function to transform string into uppercase

#include<stdio.h>

#include<string.h>

int main()

{

    char s[10];

    printf("Enter the strings:");

    gets(s);

    printf("String are uppercase: %s",strupr(s));

    return 0;

}

//5. Write a function to transform a string into lowercase

#include<stdio.h>

#include<string.h>

int main()

{

    char s[10];

    printf("Enter the strings:");

    gets(s);

    printf("String are lowercase: %s",strlwr(s));

    return 0;

}

//6. Write a function to check whether a given string is an alphanumeric string or not.

#include<stdio.h>

#include<string.h>

int main()

{

    char s[20];

    int i;

    printf("Enter the strings:");

    gets(s);

    if(s[i]>=97 && s[i]<=122)

    {

        printf("String are alphanumeric:");

    }

    else

    {

        printf("String are not alphanumeric:");

    }

    return 0;

}

//7. Write a function to check whether a given string is palindrome or not.

#include<stdio.h>

#include<string.h>

int main()

{

    char s[20],s1[20];

    printf("Enter the strings:");

    gets(s);

    strcpy(s1,s);

    strrev(s);

    if(strcmp(s1,s)==0)

    {

        printf("String is Palindrome:");

    }

    else

    {

        printf("String is not Palindrome:");

    }

    return 0;

}

// 8. Write a function to count words in a given string

#include <stdio.h>

#include <string.h>

int main()

{

    char s[40];

    int i, word = 0;

    printf("Enter the strings:");

    gets(s);

    for (i = 0; s[i]; i++)

    {

        if (s[i] == 32)

            word++;

    }

    if (i > 0)

        word++;

    printf("count of the words: %d", word);

    return 0;

}

//9. Write a function to reverse a string word wise.

#include<stdio.h>

#include<string.h>

int main()

{

    char s[40];

    int i,j;

    printf("Enter the strings:");

    gets(s);

    j = strlen(s);

    for(i=j-1; i>=0; i--)

    {

        if(s[i]==32)

        {

            s[i]='\0';

            printf("%s ",&s[i]+1);

        }

    }

    printf("%s",s);

    return 0;

}

//10. Write a function to find the repeated character in a given string.

#include<stdio.h>

#include<string.h>

int main()

{

    char s[20],ch;

    int i,count=0;

    printf("Enter the strings:");

    gets(s);

    printf("Enter the repeated character:");

    scanf("%c",&ch);

    for(i=0; s[i]; i++)

    {

        if(s[i]==ch)

        {

            count++;

        }

    }

    printf("Repeated Character '%c' is %d",ch,count);

    return 0;

}