Assignment no.11

//1.Write a program to scan string from user then scan a single character and search it in a accepted string.

```
#include<stdio.h>
#include<string.h>
int main()
{
        int i,f=0;
        char str[20],n;
        printf("Enetr string which you wnant:\n");
        scanf("%s",str);

        printf("Enetr a character which you want to search:\n");
        scanf("%c",&n);

        for(i=0;str[i]!='\0';i++)
         {
                if(str[i]==n)
                 {
                        f=1;
                   break;
                 }
          }
                 if(f==1)
                 {
                        printf("Character is present in string\n");
                 }
                 else
                 {
```

```
            printf("Character is not present in string\n");
         }

        }

//2.WAP Replace all OCCurence of'a' with $ in a string.

#include<stdio.h>
#include<ctype.h>
int main()
{
    int i;
    char s[30],c1,c2;
    printf("Eneter the string=\n");
    gets(s);

    printf("Enter character replace=\n");
    c1=getchar();

    printf("Enetr character which you want to replace with=%c");
    c2=getchar;


    for(i=0;s[i]!='\0';i++)
    {
        if(s[i]==c1)
        {
            s[i]=c2;
         }

    }
```

```
        printf("\n After replace=%s",s);

}
```

/3.WAP to Remove the nth index Character from a Non-Empty String.

```
#include<stdio.h>
#include<string.h>
void removeCharAtIndex(char* str,int index);
int main()
{
        char str[50];
        int index;

        printf("Enter a string;\n");
        scanf("%s",str);

        str[strcspn(str,"\n")]='\0';

        printf("Enter the index tp remove:");
        scanf("%d",&index);

        removeCharAtIndex(str,index);

        printf("String after remove %s\n",str);
}

void removeCharAtIndex(char* str,int index)
{
         int len=strlen(str);
         if(index<0 || index>=len)
```

```
    {
        printf("Index out of range\n");
    }
    for(int i=index;i<len-1;i++)
    {
        str[i]=str[i+1];
    }
    str[len-1]='\0';
}

//4.WAp to form a New string where the first Character and the Last character have been Exchanged;

#include<stdio.h>
#include<string.h>
void swapFirstAndLAst(str);
int main()
{
    char str[100];

    prntf("enter a string:");
    scanf("%s",str);
    //remove newline if present:
    str[strcspn(str,"\n")]='\0';

    swapFirstAndLast(str),

    printf("Modified string is:\n",str);
}

void swapFirstAndLAst(str)
```

```
{
    int len=strlen(str);

    if(len<2)
    {
        //no need to swap if the string as only 1 character:
        return;
    }
    char temp = str[0];
    str[0] = str[len-1];
    str[len-1] = temp;
}

//5.WAP to count the Number of Vowels in a string.

#include<stdio.h>
#include<string.h>
int countVowels(const char* str);
int main()
{
    char str[50];
    printf("enter a string:\n");
    scanf("%s",str);

    //remove newline character if present:
    str[strcsmpn(str,"\n")]='\0';

    int vowelCount=countVowels(str);
    printf("Number of vowels:%d\n",vowelCount);
}
int countVowels(const char* str)
```

```
{
        int count=0;
        for(int i=0;str[i]!='\0';i++)
        {
                char ch=tolower(str[i]);
                if(ch=='a'||ch=='e'||'i'||'o'||'u')
                {
                        count++;
                }
        }
        return count;
}

//6.replacing the white space with special character

#include<stdio.h>
int main()
{
        char str[50];
        int i;

        printf("Enter a string:\n");
        fgets(str,sizeof(str),stdin);

        for(int i=0;str[i]!='\0';i++)
        {
                if(str[i]==' ')
                {
                        str[i]='$';
                }
        }
```

```
	printf("The string after replacing space is:%s\n",str);
}
```

//8.WAP to calculate the number of words present in a string in c

```
#include<stdio.h>
int main()
{
	char str[40];
	int i=0,wordCount=0,inWord=0;

	printf("enter the string:\n");
	scanf("%s",str);

	while(str[i] !='\0')
	{
		if(!isspace(str[i]&& inWord==0))
		{
			inWord=1;
			wordCount++;
		}
		else if(isspace(str[i]))
		{
			inWord=0;
		}
		i++;
	}
	printf("number of words:%d\n",wordCount);
}
```

//9.WAP to Take in two Strings and Display The larger string without using Built-in Functions.

```
#include<stdio.h>
int main()
{
    char str1[30], str2[50];
    int i,len1=0,len2=0;

    printf("Enter first string:\n");
    scanf("%s",str1);
    printf("Enter second string:\n");
    scanf("%s",str2);

    //calculate the length of string
    for(i=0;str1[i] !='\0';i++)
    {
        if(str1[i]=='\n') break;
        len2++;
    }
    //compare and display the larger string
    if(len1>len2)
    {
        printf("Larger string :%s",str1);
    }
    else if(len2>len1)
    {
        printf("Larger string is: %s",str2);
    }
    else
    {
        printf("Both strings are of equallength.\n");
}
```

```
}

//10.Write a program to check the given string is palindrome or not.

#include<stdio.h>
int main()
{
        char str[50];
        int i,len=0,isPalindrome=1;

        printf("Enter a string:\n");
        scanf("%s",str);

        for(i=0;str[i] !=0;i++)
        {
                if(str[i]=='\n') break;
                 len++;
        }
        for(i=0;i<len/2;i++)
        {
                if(str[i] !=str[len-1-i])
                {
                        isPalindrome=0;
                        break;
                }
        }
        if(isPalindrome)
          {
                printf("The string is a palindrome\n");
          }
          else
        {
                printf("The string is not palindrome:\n");
        }
}
```