**Handling multiple Strings in C Language**

**Assignment – 19**

1.Write a program to find the number of vowels in each of the 5 strings stored in two

dimensional arrays, taken from the user.

#include<stdio.h>

#include<string.h>

int main()

{

char str[5][10];

char vowel[]="aAeEiIoOuU";

int i,j,k,count=0;

printf("enter string=\n");

for(int i=0;i<5;i++)

gets(str[i]);

for(int i=0;i<5;i++)

{

for(int j=0;j<strlen(str[i]);j++)

{

for(k=0;k<strlen(vowel);k++)

{

if(str[i][j]==vowel[k])

{

count++;

}

}

}

}

printf("TOTAL VOWELS PRESENT=%d",count);

return 0;

}

2.Write a program to sort 10 city names stored in two dimensional arrays, taken from

the user.

#include<stdio.h>

#include<string.h>

int main()

{

char a[10][20],b[10][20],t[20];

int i,j;

printf("ENTER 10 CITYS NAME=\n");

for(i=0;i<10;i++)

{

gets(a[i]);

}

printf("10 CITY IN SHORTED ORDER ARE=\n");

for(i=0;i<10;i++)

{

for(j=i+1;j<10;j++)

{

if(strcmp(a[i],a[j])>0)

{

strcpy(t,a[i]);

strcpy(a[i],a[j]);

strcpy(a[j],t);

}

}

}

for(i=0;i<10;i++)

printf("%s \n",a[i]);

return 0;

}

3.Write a program to read and display a 2D array of strings in C language

#include<stdio.h>

#include<string.h>

int main()

{

char a[5][20],s[200];

int i,j,k=0;

printf("ENTER STRING=\n");

for(i=0;i<5;i++)

{

gets(a[i]);

}

printf("\n");

printf("ENTER STRING BY U=\n");

for(i=0;i<5;i++)

{

for(j=0;j<strlen(a[i]);j++)

{

s[k]=a[i][j];

k++;

}

s[k]=' ';

k++;

}

puts(s);

return 0;

}

4.Write a program to search a string in the list of strings

#include<stdio.h>

#include<string.h>

int main()

{

char str[20][50],s1[50];

int n,i,found=0;

printf("ENTER HOW MANY STRING=");

scanf("%d",&n);

printf("ENTER %d string=\n",n);

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

{

scanf("%s",str[i]);

}

printf("ENTER STRING TO SEARCH=");

scanf("%s",s1);

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

{

if(strcmp(s1,str[i])==0)

{

found=1;

printf("found\n");

}

}

if(found==0)

printf("NOT FOUND");

return 0;

}

5.Suppose we have a list of email addresses, check whether all email addresses have

‘@’ in it. Print the odd email out.

#include<stdio.h>

#include<string.h>

int main()

{

char a[10][20];

int i,j;

printf("ENTER 5 EMAIL ID=\n");

for(i=0;i<5;i++)

{

gets(a[i]);

}

printf("\nEMAIL CONTAINING @ are=\n");

for(i=0;i<5;i++)

{

if(strchr(a[i],'@')!=0)

{

printf("%s\n",a[i]);

}

}

printf("\nEMAIL NOT CONTAINING @ are=\n");

for(i=0;i<5;i++)

{

if(strchr(a[i],'@')==0)

{

printf("%s\n",a[i]);

}

}

return 0;

}

6.Write a program to print the strings which are palindrome in the list of strings.

#include<stdio.h>

#include<string.h>

#define siz 100

int pal(char [],int);

int main()

{

char str[siz];

printf("ENTER STRING=");

fgets(str,siz,stdin);

pal(str,siz);

}

int pal(char str[],int size)

{

int l=strlen(str),i;

for(i=0;i<l/2;i++)

{

if(str[i]!=str[l-1-i])

{

printf("NOT A PALINDROM");

break;

}

}

if(i==l/2)

printf("PALINDROM");

}

8. Given a list of words followed by two words, the task is to find the minimum distance between the given two words in the list of words.

#include<stdio.h>

#include<string.h>

int main()

{

char str[5][50],s1[10][10],s2[10][10];

int i,w1=-1,w2=-1,min=0;

printf("Enter strings:\n");

for(i=0;i<5;i++)

{

gets(str[i]);

}

printf("\nEnter a WORD 1:\n");

scanf("%s",s1);

printf("\nEnter a WORD 2:\n");

scanf("%s",s1);

printf("DISTANCE BETWEEN TWO WORDS=\n");

for(i=0;i<5;i++)

{

if(strcmp(str[i],s1)==0)

w1=i;

if(strcmp(str[i],s2)==0)

w2=i;

if(w1!=-1 && w2!=-1)

min=abs(w2-w1);

}

printf("%d",min);

return 0;

}

9.Write a program that asks the user to enter a username. If the username entered is

one of the names in the list then the user is allowed to calculate the factorial of a

number. Otherwise, an error message is displayed

#include<stdio.h>

#include<string.h>

int main()

{

char str[][10]={"sitaram","gitaram","hanumanram","bibhisan"};

char s1[10];

int i,found=0,fact=1,n;

printf("Enter a string to search: ");

scanf("%s",s1);

for(i=0;i<4;i++)

{

if(strcmp(str[i],s1)==0)

{

found=1;

printf("Found\n");

}

}

if(found==1)

{

printf("\nENTER NO TO DO FACTORIAL=\n");

scanf("%d",&n);

printf("FACTORIAL IS=");

for(int i=1;i<=n;i++)

fact=fact\*i;

printf("%d",fact);

}

if(found==0)

printf("Not found");

return 0;

}