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.

Ans #include<stdio.h>

int main()

{

char a[5][30];

int i,j,vowel=0;

printf("Enter 5 String: ");

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

{

fgets(a[i],30,stdin);

}

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

{

for(j=0;a[i][j]!='\0';j++)

{

if(a[i][j]=='a' || a[i][j]=='e' || a[i][j]=='i' || a[i][j]=='o' || a[i][j]=='u')

vowel++;

}

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

vowel=0;

}

return 0;

}

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

Ans #include<stdio.h>

#include<string.h>

int main()

{

char a[10][30],b[30];

int i,j;

printf("Enter 10 city name: ");

for(i=0;i<=9;i++)

{

gets(a[i]);

}

for(i=0;i<=8;i++)

{

for(j=i+1;j<=9;j++)

{

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

{

strcpy(b,a[i]);

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

strcpy(a[j],b);

}

}

}

for(i=0;i<=9;i++)

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

return 0;

}

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

Ans #include<stdio.h>

int main()

{

char a[4][30];

int i,j;

printf("Enter strings: ");

for(i=0;i<=3;i++)

gets(a[i]);

for(i=0;i<=3;i++)

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

return 0;

}

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

Ans #include<stdio.h>

#include<string.h>

int main()

{

char a[10][30],b[30];

int i;

printf("Enter 10 city name: ");

for(i=0;i<=9;i++)

gets(a[i]);

printf("Find which city: ");

scanf("%s",&b);

for(i=0;i<=9;i++)

{

if(strcmp(a[i],b)==0)

{

printf("Found the city");

break;

}

}

if(i==10)

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.

Ans #include<stdio.h>

#include<string.h>

int main()

{

char a[10][30];

int i,j=0;

printf("Enter 10 email address: ");

for(i=0;i<=9;i++)

gets(a[i]);

for(i=0;i<=9;i++)

{

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

{

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

}

}

return 0;

}

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

Ans #include<stdio.h>

#include<string.h>

int main()

{

char a[10][30];

int i,j,k;

printf("Enter 10 string: ");

for(i=0;i<=9;i++)

fgets(a[i],30,stdin);

printf("Palindrome strings are : \n");

for(i=0;i<=9;i++)

{

k=strlen(a)-1;

for(j=0;j<k/2;j++)

{

if(a[i][j]!= a[i][k-1-j])

break;

}

if(j==k/2)

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

}

return 0;

}

7. From the list of IP addresses, check whether all ip addresses are valid.

Ans INCOMPLETE

#include<stdio.h>

#include<string.h>

int main()

{

char ip [10][30];

int i,x;

printf("Enter ip address : ");

for(i=0;i<=1;i++)

fgets(ip[i],30,stdin);

for(i=0;i<=1;i++)

{

char \*a=strtok(ip,".");

while(a!=NULL)

{

x= atoi(a);

if((x>=0)&& (x<=255))

printf("%d ",x);

a=strtok(NULL,".");

}

}

return 0;

}

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. (Example : s = {“the”,”quick”,”brown”,”fox”,”quick”} word1 = “the”, word2 = “fox”, OUTPUT : 1 )

Ans #include<stdio.h>

#include<string.h>

int main()

{

int i,w1=-1,w2=-1,min=10000;

char w[4][20];

printf("Enter the list of words : ");

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

fgets(w,20,stdin);

char x[20];

printf("Enter first word : ");

fgets(x,20,stdin);

char y[20];

printf("Enter second word : ");

fgets(y,20,stdin);

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

{

if(strcmp(w[i],x)==0)

w1=i;

if(strcmp(w[i],y)==0)

w2=i;

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

min=abs(w2-w1);

}

printf("Distance between two words %d",min-1);

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.

Ans.

10. Create an authentication system. It should be menu driven

Ans.

#include<stdio.h>

#include<string.h>

int main()

{

int i,flag=0;

char a[3][2][50]= {

{

"Gourab","6296"

},

{

"Rahul","2322"

},

{

"Akash","8972"

}

};

char username[20];

printf("Enter the username : ");

gets(username);

char password[20];

printf("Enter the password : ");

gets(password);

for(i=0;i<3;i++)

{

if(strcmp(username,a[i][0])==0 && strcmp(password,a[i][1])==0)

{

printf("Login Successful !!");

flag=1;

}

}

if (flag ==0)

printf("Username or password not matched");

return 0;

}