**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()

{

   int i,j,vow;

   char str[5][200];

   printf("Enter all strings: ");

   for(int i=0;i<5;i++)

   {

     fgets(str[i],200,stdin);

   }

   for(i=0;i<5;i++)

   {

      vow=0;

      for(j=0;j<str[i][j];j++)

      {

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

           vow++;

         if(str[i][j]=='A' || str[i][j]=='E' || str[i][j]=='I' || str[i][j]=='O' || str[i][j]=='U')

           vow++;

      }

      printf("Vowel in %d string is %d\n",i+1,vow);

   }

}

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()

{

   int i,j;

   char str[5][200],vow[200];

   printf("Enter all cities name: ");

   for(int i=0;i<10;i++)

   {

     fgets(str[i],200,stdin);

   }

    for(i=0;i<9;i++)

    {

        for(j=i+1;j<10;j++)

        {

          if(strcmp(str[i],str[j])>0)

            {

                strcpy(vow,str[i]);

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

                strcpy(str[j],vow);

            }

        }

    }

    printf("cities after sorting by name:\n\n");

    for(i=0;i<10;i++)

      printf("%s\n",str[i]);

}

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

#include<stdio.h>

#include<string.h>

int main()

{

   int i,n;

   printf("Enter number of string less than 11: ");

   scanf("%d",&n);

   char str[n][200];

   printf("Enter all name: ");

   for(i=0;i<n;i++)

   {

     fgets(str[i],200,stdin);

   }

    for(i=0;i<n;i++)

    {

       printf("%s\n",str[i]);

    }

}

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

#include<stdio.h>

#include<string.h>

int main()

{

   int i,j=0;

    char strsearch[200],str[5][200];

    printf("Enter all strings:\n");

    for(i=0;i<5;i++)

    {

        fgets(str[i],200,stdin);

    }

    printf("Enter a string which you want to search: ");

    fgets(strsearch,200,stdin);

    for(i=0;i<5;i++)

    {

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

        {

            j=1;

            break;

        }

    }

    if(j==1)

     printf("String is available in list.");

    else

     printf("Not available.");

}

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()

{

   int i,j,len,k;

    char str[5][200];

    printf("Enter all email:\n");

    for(i=0;i<5;i++)

    {

        fgets(str[i],200,stdin);

    }

 printf("\nunique Emails are:\n");

    for(i=0;i<5;i++)

    {

        k=0;

        len=strlen(str[i]);

        for(j=0;j<len;j++)

        {

            if(str[i][j]=='@')

            {

              k=1;

              break;

            }

        }

        if(k==0)

           printf("%s",str[i]);

    }

}

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