Assignment 19

①
```c
#include <stdio.h>
int main()
{
    char str[5][200];    vowel
    char vowel[10] = {'A','a','E','e','I','i','O','o','U','u'};
    int i,j,count = 0,k;
    printf("Enter 5 strings\n");
    for(i=0; i<5; i++)
        fgets(str[i], 200, stdin);
    for(i=0; i<5; i++)
        printf("%s\n", str[i]);

    for(i=0; i<5; i++)
    {
        for(j=0; str[i][j]; j++)
            for(k=0, k<10, k++)
                if(str[i][j] == vowel[k])
                {
                    count++;
                    break;
                }
    }
}

    printf("Number of vowels in strings are %d", count);
}
```

③
```c
#include <stdio.h>
int main()
{
char str& it
int n,i;
printf("Enter number of strings you will enter\n);
scanf("%d", &n);
char str[n][200];
printf("Enter %d strings\n", n);
for(i=0, i<n; i++)
fgets(str[i]; 200, stdin);

for(i=0; i<n; i++)
printf("%s\n", str[i]);
return 0;

}
```

(5)

```c
#include <stdio.h>
int main()
{

    int n,i,j;
    char str[50];
    printf("Enter number of e-mail addresses you want to
            enter\n");
    scanf("%d", &n);
    char ch[n][100];
    printf("Enter %d e-mail addresses\n", n);
    for(i=0; i<n; i++)
        fgets(ch[i], 100, stdin);
    for(i=0; i<n; i++)
        printf("%s\n", &ch[i]);
    printf("\nemail addresses without '@' symbol are: \n");
    for(i=0; i<n; i++)
        for(j=0; ch[i][j]; j++)
        {
            if( ch[i][j]=='@' )
                break;

        }
        if(ch[i][j]=='@')
        {
        }
            for(j=0; ch[i][j]; j++)
                printf("%s\n", ch[i]);

        }
            printf("\n");
        }   return 0;
```

```c
6   #include <stdio.h>
    int main()
    {
    int n,i, length, j;
    printf("Enter number of strings you want to enter.\n");
    scanf("%d", &n);
    char str[n][200];
    printf("%d \n\n Enter %d strings\n\n ", n,n);
    for(i= 0; i<n; i++)
    fgets(str[i], 100, stdin);
    for(i=0; i<n; i++)
    printf("%s\n", str[i]);

    printf("\n Palindrome strings among above strings are:\n

    for(i= 0; i<n; i++)
    {
    for(j=0; str[i][j]; j++);
    length = j;
    for(j=0;   j< length/2 ; j++)
    {
    if(str[i][j] != str[i][length-1-j])
    break;

    }
    if(j== length/2)
        printf("%s\n", str[i]);

    }
    return 0;
    }
```

(9)
```c
#include <stdio.h>
int main()
{
    char *name[10][100] = {"Maya", "Harshad", "Navika",
    "Neil", "Mayank", "Sanvi", "Parth", "Ritika",
    "Tushar", "Tamanna"};
    int i, j, number, factorial = 1;
    char Name[100];
    printf("Enter your name\n");
    fgets(Name, 100, stdin);
    printf("%s\n", Name);
    for(i = 0; i < 10; i++)
    {
        if(name[i][0] == Name[0])
            break;
    }

    for(j = 0; name[i][j]; j++)
    {
        if(name[i][j] != Name[j])
            break;
    }
    if(name[i][j] == '\0')
    {
    printf("Your name is in the list, so you can calculate
        the factorial...\n");
    printf("Enter a number\n");
        scanf("%d", &number);
```

```c
printf("%d\n", number);

for(i = number; i>0; i--)
    & factorial = factorial * number;

printf("factorial of %d is %d", number, factorial);

}
else
    printf("Error... Your name is not in the list\n");

}

getch();

return 0;

}
```