

```
// Problem_1
#include <stdio.h>
#include <stdlib.h>

int main()
{
    char str1[4];
    char str2[4];
    printf("Input strings 1: ");
    scanf("%s",str1);
    printf("Input strings 2: ");
    scanf("%s",str2);
    printf("String 1 is %s\n", str1);
    printf("String 2 is %s\n", str2);
    int length1 = strlen(str1);
    int length2 = strlen(str2);
    printf("String length is %d\n", length1);
    printf("String length is %d", length2);

    return 0;
}
```

// Output:

```
Input strings 1: omr
Input strings 2: frk
String 1 is omr
String 2 is frk
String length is 3
String length is 3
```

// Adjacency Matrix:

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int N,M;
    N = 5;
    int arr[][2] = { { 1,2},{2,3},{4,5},{1,5} };
    M = sizeof(arr)/sizeof(arr[0]);
    int Adj[N+1][N+1];

    for(int i =0; i<N+1;i++){
        for(int j = 0; j<N+1;j++){
            Adj[i][j]=0;
        }
    }
    for(int i = 0; i<M;i++){
        int x = arr[i][0];
```

```
    int y = arr[i][1];

    Adj[x][y] = 1;
    Adj[y][x] = 1;
}

printf("Adjacency Matrix is: \n");

for (int i = 1; i < N + 1; i++) {
    for (int j = 1; j < N + 1; j++) {

        printf("%d ", Adj[i][j]);
    }
    printf("\n");
}

return 0;
}
```

Output:

```
Adjacency Matrix is:  
0 1 0 0 1  
1 0 1 0 0  
0 1 0 0 0  
0 0 0 0 1  
1 0 0 1 0
```

Time Complexity is: $O(n^2)$