

```
1  #include <stdio.h>
2  #include <string.h>
3
4  void stringcopy(char *s1,char *s2)
5  {
6      int i;
7      for(i=0;s2[i]=s1[i];i++);
8
9      s2[i]='\0';
10
11
12 }
13 int main()
14 {
15     char s1[1000],s2[1000];
16     int i;
17
18     printf("Enter any string: ");
19     gets(s1);
20     stringcopy(s1,s2);
21
22     printf("original string s1='%s'\n",s1);
23     printf("copied string   s2='%s'",s2);
24     return 0;
25 }
```

/tmp/b15r9DVEUf.o

Enter any string: gowtham

original string s1='gowtham'

copied string s2='gowtham'



```
1 #include <stdio.h>
2 int main()
3 {
4     int i, low, high, mid, n, key, array[100];
5     printf("Enter number of elementsn");
6     scanf("%d",&n);
7     printf("Enter %d integersn", n);
8     for(i = 0; i < n; i++)
9         scanf("%d",&array[i]);
10    printf("Enter value to findn");
11    scanf("%d", &key);
12    low = 0;
13    high = n - 1;
14    mid = (low+high)/2;
15    while (low <= high) {
16        if(array[mid] < key)
17            low = mid + 1;
18        else if (array[mid] == key) {
19            printf("%d found at location %d.n", key, mid+1);
20            break;
21        }
22        else
23            high = mid - 1;
24        mid = (low + high)/2;
25    }
26    if(low > high)
27        printf("Not found! %d isn't present in the list.n", key);
28    return 0;
29 }
```

/tmp/b15r9DVEUf.o

Enter number of elementsn5

Enter 5 integersn2

3

3

1

7

Enter value to findn7

7 found at location 5.n

main.c



Run

Output

```
1 #include <stdio.h>
2 int main()
3 {
4     char str[1000], rev[1000];
5     int i, j, count = 0;
6     scanf("%s", str);
7     printf("\nString Before Reverse: %s", str);
8     //finding the length of the string
9     while (str[count] != '\0')
10    {
11        count++;
12    }
13    j = count - 1;
14
15    //reversing the string by swapping
16    for (i = 0; i < count; i++)
17    {
18        rev[i] = str[j];
19        j--;
20    }
21
22    printf("\nString After Reverse: %s", rev);
23 }
```

/tmp/SPpgFKYodf.o

zooz

String Before Reverse: zooz

String After Reverse: zooz%



```
1 #include <stdio.h>
2 #include <string.h>
3
4 int main()
5 {
6     char Str[1000];
7     int i;
8
9     printf("Enter the String: ");
10    scanf("%s", Str);
11
12    for (i = 0; Str[i] != '\0'; ++i);
13
14    printf("Length of Str is %d", i);
15
16    return 0;
17 }
18
```

/tmp/SPpgFKYodf.o

Enter the String: brand

Length of Str is 5brand

dash: 2: brand: not found

```
1 #include<stdio.h>
2 #include<stdlib.h>
3 int main(){
4     int a[10][10],b[10][10],mul[10][10],r,c,i,j,k;
5     system("cls");
6     printf("enter the number of row=");
7     scanf("%d",&r);
8     printf("enter the number of column=");
9     scanf("%d",&c);
10    printf("enter the first matrix element=\n");
11    for(i=0;i<r;i++)
12    {
13        for(j=0;j<c;j++)
14        {
15            scanf("%d",&a[i][j]);
16        }
17    }
18    printf("enter the second matrix element=\n");
19    for(i=0;i<r;i++)
20    {
21        for(j=0;j<c;j++)
22        {
23            scanf("%d",&b[i][j]);
24        }
25    }
26
27    printf("multiply of the matrix=\n");
28    for(i=0;i<r;i++)
29    {
30        for(j=0;j<c;j++)
31        {
32            mul[i][j]=0;
33            for(k=0;k<c;k++)
```

```
/tmp/UCDq3kC0wP.o
sh: 1: cls: not found
enter the number of row=2
enter the number of column=2
enter the first matrix element=
4
8
5
9
enter the second matrix element=
7
3
2
1
multiply of the matrix=
44 20
53 24
|
```

```
18     printf("\n");
19     for(j=0;j<2;j++){
20         printf("%d\t",a[1][j]);
21     }
22
23     printf("\nThe second matrix is\n");
24     for(i=0;i<2;i++){
25         printf("\n");
26         for(j=0;j<2;j++){
27             printf("%d\t",b[1][j]);
28         }
29         m1= (a[0][0] + a[1][1])*(b[0][0]+b[1][1]);
30         m2= (a[1][0]+a[1][1])*b[0][0];
31         m3= a[0][0]*(b[0][1]-b[1][1]);
32         m4= a[1][1]*(b[1][0]-b[0][0]);
33         m5= (a[0][0]+a[0][1])*b[1][1];
34         m6= (a[1][0]-a[0][0])*(b[0][0]+b[0][1]);
35         m7= (a[0][1]-a[1][1])*(b[1][0]+b[1][1]);
36
37         c[0][0]=m1+m4-m5+m7;
38         c[0][1]=m3+m5;
39         c[1][0]=m2+m4;
40         c[1][1]=m1-m2+m3+m6;
41
42         printf("\nAfter multiplication using \n");
43         for(i=0;i<2;i++){
44             printf("\n");
45             for(j=0;j<2;j++){
46                 printf("%d\t",c[1][j]);
47             }
48
49         return 0;
50     }
```

```
^ /tmp/SPpgFKYodf.o
Enter the 4 elements of first matrix: 2
1
8
3
Enter the 4 elements of second matrix: 4
2
7
3
3
The first matrix is
2 1
8 3
The second matrix is
4 7
3 3
After multiplication using
11 17
41 65
```



```
1 #include <stdio.h>
2
3 int main()
4 {
5     int array[100], n, c, d, swap;
6
7     printf("Enter number of elements\n");
8     scanf("%d", &n);
9
10    printf("Enter %d integers\n", n);
11
12    for (c = 0; c < n; c++)
13        scanf("%d", &array[c]);
14
15    for (c = 0 ; c < n - 1; c++)
16    {
17        for (d = 0 ; d < n - c - 1; d++)
18        {
19            if (array[d] > array[d+1])
20            {
21                swap      = array[d];
22                array[d]  = array[d+1];
23                array[d+1] = swap;
24            }
25        }
26    }
27
28    printf("Sorted list in ascending order:\n");
29
30    for (c = 0; c < n; c++)
31        printf("%d\n", array[c]);
32
33    return 0;
```

/tmp/gP9m2prkfb.o

Enter number of elements

5

Enter 5 integers

23

9

12

3

1

Sorted list in ascending order:

1

3

9

12

23



```
1  #include <stdio.h>
2  #include <string.h>
3
4  int main(){
5      char string1[20];
6      int i, length;
7      int flag = 0;
8
9      printf("Enter a string:");
10     scanf("%s", string1);
11
12     length = strlen(string1);
13
14     for(i=0;i < length ;i++){
15         if(string1[i] != string1[length-i-1]){
16             flag = 1;
17             break;
18         }
19     }
20
21     if (flag) {
22         printf("%s is not a palindrome", string1);
23     }
24     else {
25         printf("%s is a palindrome", string1);
26     }
27     return 0;
28 }
```

/tmp/Djj1pdpnhB.o

Enter a string:wow

wow is a palindrome