

Character Array – Collection of Characters – String

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

```
#define SIZE 20
```

```
int main()
```

```
{
```

```
    char a[SIZE] , ch; // a is array and ch is for temporary location for swapping
```

```
    int i,l; //i for iteration and l for length
```

```
    printf("Enter a String ->");
```

```
    scanf("%s",a);
```

```
    l = strlen(a); // here l is for storing the length
```

```
    /*
```

Logic 1

Just printing the elements in the reverse order by one character at a time from the last position to first position, but the actual string is not modified

```
    */
```

```
    printf("Logic 1: Reverse of the string is ->");
```

```
    for(i = l-1; i >= 0; i--)
```

```
    {
```

```
        printf("%c",a[i]);
```

```
    }
```

```
    printf("\nActual String at a is still same %s\n",a);
```

```
    /*
```

Logic 2

The characters in the string a is reversed in the memory locations itself by interchanging the first character with the last character and so on

```
    */
```

```
    for(i = 0, l = l-1; i < l ; i++,l--)
```

```
    {
```

```
        ch = a[i];
```

```
        a[i] = a[l];
```

```
        a[l] = ch;
```

```
    }
```

```
    printf("\nLogic 2: Reverse of the string a is ->%s",a);
```

```
    return 0;
```

```
}
```