

[Register Now!](#)[Contact Us](#)[Home](#)[Project Ideas »](#)[Training Programs New »](#)[Downloads »](#)[Campus Experience »](#)[Blog »](#)[Contact Us »](#)

# Print Alphabetically

**Code Id** 7

**Date Updated** 3/7/2010

**Title** Print alphabetically

**Description**

Write a program that reads a series of lines and prints the lines in alphabetical order. You may assume that there are at most 1000 lines. You may assume that each line has at most 1000 characters. You may assume that the last line of input ends with a newline.

## Codes Snippet

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

char x[1000][1000];
int xlen[1001];
int y;

/*
Line 0 has xlen[0] bytes: x[0][0], x[0][1], ..., x[0][xlen[0]-1].
Line 1 has xlen[1] bytes: x[1][0], x[1][1], ..., x[1][xlen[1]-1].
Line 2 has xlen[2] bytes: x[2][0], x[2][1], ..., x[2][xlen[2]-1].
...
Line y has xlen[y] bytes: x[y][0], x[y][1], ..., x[y][xlen[y]-1].
That's all the input.
*/

void print(int i) /* print out line i */
{
    int k;

    for (k = 0; k < xlen[i]; ++k)
        putchar(x[i][k]);
    putchar('\n');
}

void copy(int i, int j) /* copy line j to line i */
{
    int k;
    for (k = 0; k < 1000; ++k)
        x[i][k] = x[j][k];
    xlen[i] = xlen[j];
}

int smaller(int i, int j) /* is line i alphabetically before line j? */
{
    int k;

    k = 0;
    for (;;) {
        if (k >= xlen[i]) return 1;
        if (k >= xlen[j]) return 0;
        if (tolower(x[i][k]) < tolower(x[j][k])) return 1;
        if (tolower(x[i][k]) > tolower(x[j][k])) return 0;
        ++k;
    }
}

int main(void)
{
    char c;
    int i;
    int smallest;

    xlen[0] = 0;
    y = 0;

    while (scanf("%c", &c) == 1)
```

## Online Enquiry



## Course Registration



## Recent Posts

[Types of Cloud Computing](#)[What is Cloud Computing ?](#)[How to pass a multi-dimensional array to a function?](#)[Memory Layout of a C Program](#)[PHP and Its Advantages](#)

Register Now!

Contact Us

Home

Project Ideas »

Training Programs New »

Downloads »

Campus Experience »

Blog »

Contact Us »

Go

```
if (smaller(i,smallest))
    smallest = i;
print(smallest);
copy(smallest,--y);
}

return 0;
}
```