Sorting a dynamic 2-dimensional array of Strings

**Prerequisite:** [How to dynamically allocate a 2D array in C?](https://www.geeksforgeeks.org/dynamically-allocate-2d-array-c/)

**Double pointer:** A pointer pointing to another pointer is known as a Double pointer. To represent the double pointer ‘ \*\* ‘ is used. Double pointer is also called as pointer to pointer.

Example:

Input: Geeks, Gfg, Placement, Sudo, Gate

Output: Gate, Geeks, Gfg, Placement, Sudo

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| // C program to sort an array of strings  #include <stdio.h>  #include <stdlib.h>  #include <string.h>    // Function to sort the values  void sort(char\*\* names, int n)  {      int i, j;        // Perform sort operation using bubble sort      for (i = 0; i < n - 1; i++)          for (j = 0; j < n - i - 1; j++)              if (strcmp(names[j], names[j + 1]) > 0) {                  char\* temp;                  temp = (char\*)calloc(30, sizeof(char));                  strcpy(temp, names[j]);                  strcpy(names[j], names[j + 1]);                  strcpy(names[j + 1], temp);              }  }    // Driver code  int main()  {      char\*\* names;      int n, i;      printf("Enter the number of names to be printed: ");      scanf("%d\n", &n);        // allocating memory for 1st dimension      names = (char\*\*)calloc(n, sizeof(char\*));        for (i = 0; i < n; i++)      // allocating memory for 2nd dimension      {          names[i] = (char\*)calloc(30, sizeof(char));          scanf("%s", names[i]);      }      sort(names, n);        printf("\nArray after sorting:\n");      for (i = 0; i < n; i++)          printf("%s\n", names[i]);        return 0; } |