

FND 15

getString source code

```
char *getString()
{
    char *s;
    fgets(s, 100, stdin);
    length = strlen(s);
    char *sArray[length];
    return s;
}
```

Modified main source code

```
int main(int argc, char *argv[])
{
    FILE *f = fopen(argv[1], "w");
    if (f == (FILE *)NULL)
    {
        printf("Error opening %s\n", argv[1]);
    }
    char *s = getString();
    fputString(f, s);
    int j = 0;
    while (j < 4)
    {
        s = getString();
        fputString(f, s);
        j++;
    }
    fclose(f);
    return EXIT_SUCCESS;
}
```

Source code of the whole program

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4  int length;
5  int i;
6  char *getString()
7  {
8      char *s;
9      fgets(s, 100, stdin);
10     length = strlen(s);
11     char *sArray[length];
12     return s;
13 }
14
15 int main(int argc, char *argv[])
16 {
17
18     FILE *f = fopen(argv[1], "w");
19     if (f == (FILE *)NULL)
20     {
21         printf("Error opening %s\n", argv[1]);
22     }
23     char *s = getString();
24     fputString(f, s);
25     int j = 0;
26     while (j < 4)
27     {
28         s = getString();
29         fputString(f, s);
30         j++;
31     }
32     fclose(f);
33     return EXIT_SUCCESS;
34 }
35
```

Terminal input

```
PS C:\Users\momou\Desktop\University\CS 2263\ForNextDay\ForNextDay()15> ./main output.txt
Mahmoud
James
King
Street
Liverpool
```

Output.txt

```
7 Mahmoud  
5 James  
4 King  
6 Street  
9 Liverpool
```

compareString source code

```
int compareString(char *str1, char *str2)  
{  
    char **str1P = (char**) str1;  
    char **str2P = (char**) str2;  
    return strcmp(*str1P, *str2P);  
}
```

Source code of the whole program

```
1  #include <stdlib.h>
2  #include <stdio.h>
3  #include "Strings.c"
4  int compareString(char *str1, char *str2)
5  {
6      char **str1P = (char**) str1;
7      char **str2P = (char**) str2;
8      return strcmp(*str1P, *str2P);
9  }
10 int main(int argc, char* argv[])
11 {
12     char* stringsArray[] = {"Hello","World", "Name", "Age"};
13     printf("Array contents:\n");
14     int i;
15     for(i = 0; i < 4; i++)
16     {
17         printf("%s ", stringsArray[i]);
18     }
19     printf("\n");
20
21     printf("Array after ordering:\n");
22     qsort(stringsArray, 4, sizeof(char*), compareString);
23     for ( i = 0; i < 4; i++)
24     {
25         printf("%s\n", stringsArray[i]);
26     }
27 }
28
```

Terminal output

```
PS C:\Users\momou\Desktop\University\CS 2263\ForNextDay\ForNextDay()15> ./compareStrings
Array contents:
Hello World Name Age
Array after ordering:
Age
Hello
Name
World
```