Write a C program to simulate the following file organization techniques.

a) Single level directory

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

#define MAX_FILES 100
#define NAME_LEN 20

int main() {
   char files[MAX_FILES][NAME_LEN];
   int count = 0, i, choice;
   char name[NAME_LEN];

   printf("Single-Level Directory File System Simulation\n");

   while (1) {
      printf("\n1. Create File\n2. Delete File\n3. Display Files\n4. Exit\n");
      printf("Enter your choice: ");
      scanf("%d", &choice);

      switch(choice) {
         case 1:
            if (count >= MAX_FILES) {
               printf("Directory full.\n");
               break;
            }
            printf("Enter file name to create: ");
            scanf("%s", name);

            int exists = 0;
            for(i = 0; i < count; i++) {
               if(strcmp(files[i], name) == 0) {
                  exists = 1;
                  break;
               }
            }

            if (exists)
               printf("File already exists.\n");
            else {
               strcpy(files[count], name);
               count++;
               printf("File created.\n");
            }
```

```
            break;

        case 2:
            printf("Enter file name to delete: ");
            scanf("%s", name);

            int found = 0;
            for(i = 0; i < count; i++) {
                if(strcmp(files[i], name) == 0) {
                    for(int j = i; j < count - 1; j++)
                        strcpy(files[j], files[j + 1]);
                    count--;
                    found = 1;
                    printf("File deleted.\n");
                    break;
                }
            }

            if (!found)
                printf("File not found.\n");
            break;

        case 3:
            if (count == 0)
                printf("Directory is empty.\n");
            else {
                printf("Files in directory:\n");
                for(i = 0; i < count; i++)
                    printf("%s\n", files[i]);
            }
            break;

        case 4:
            return 0;

        default:
            printf("Invalid choice.\n");
      }
   }

   return 0;
}
```

Output

```
Single-Level Directory File System Simulation

1. Create File
2. Delete File
3. Display Files
4. Exit
Enter your choice: 1
Enter file name to create: shreyas
File created.

1. Create File
2. Delete File
3. Display Files
4. Exit
Enter your choice: 3
Files in directory:
shreyas

1. Create File
2. Delete File
3. Display Files
4. Exit
Enter your choice: 4


=== Code Execution Successful ===
```