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EXERCISE-27

Develop a C program for simulating the function of ls UNIX Command.

Aim:

To develop a C program that simulates the function of the ls UNIX command, which lists the files and directories in the current directory.

Algorithm:

1. Open Directory:

- Use the opendir system call to open the directory.

2. Read Directory:

- Use the readdir system call to read the directory entries.

3. Display Directory Contents:

- Display the names of files and directories read by readdir.

4. Close Directory:

- Use closedir to close the directory after reading its contents.

Procedure:

1. Open the directory using opendir.
2. Read directory contents using readdir in a loop until all entries are read.
3. Display the names of the files and directories.
4. Close the directory using closedir.

Code:

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

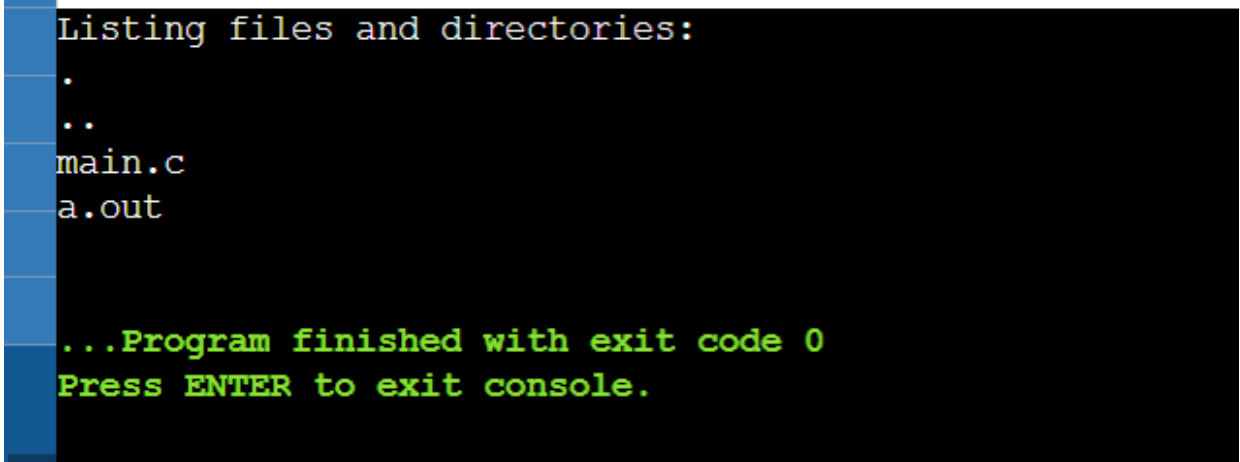
int main() {
    DIR *dir;
    struct dirent *entry;
```

```
dir = opendir(".");
if (dir == NULL) {
    perror("Error opening directory");
    return 1;
}
printf("Listing files and directories:\n");
while ((entry = readdir(dir)) != NULL) {
    printf("%s\n", entry->d_name);
}
closedir(dir);
return 0;
}
```

Result:

The program successfully simulates the ls command by listing the files and directories in the current directory.

Output:



```
Listing files and directories:
```

```
.
```

```
..
```

```
main.c
```

```
a.out
```

```
...Program finished with exit code 0
```

```
Press ENTER to exit console.
```