C Program to Print names of all Files present in a Directory

**dirent.h** header file contains variables and functions related to directory streams.

Below is a program to print the names of all the files in a directory.

#include<stdio.h>

#include<dirent.h>

int main(void)

{

DIR \*d;

struct dirent \*dir;

d = opendir(".");

if (d)

{

while ((dir = readdir(d)) != NULL)

{

printf("%s\n", dir->d\_name);

}

closedir(d);

}

return(0);

}

File1.txt

File2.txt

File3.txt

File4.txt

File5.txt

File6.txt

File7.txt

# How can I get the list of files in a directory using C/C++?

Standard C++ doesn't provide a way to do this. You could use the system command to initialize the ls command as follows −

## Example

#include<iostream>

int main () {

   char command[50] = "ls -l";

   system(command);

   return 0;

}

## Output

This will give the output −

-rwxrwxrwx 1 root root  9728 Feb 25 20:51 a.out

-rwxrwxrwx 1 root root   131 Feb 25 20:44 hello.cpp

-rwxrwxrwx 1 root root   243 Sep  7 13:09 hello.py

-rwxrwxrwx 1 root root 33198 Jan  7 11:42 hello.o

drwxrwxrwx 0 root root   512 Oct  1 21:40 hydeout

-rwxrwxrwx 1 root root    42 Oct 21 11:29 my\_file.txt

-rwxrwxrwx 1 root root   527 Oct 21 11:29 watch.py

If you're on windows, you can use dir instead of ls to display the list.

## Example

You can use the direct package(https://github.com/tronkko/dirent) to use a much more flexible API. You can use it as follows to get a list of files −

#include <iostream>

#include <dirent.h>

#include <sys/types.h>

using namespace std;

void list\_dir(const char \*path) {

   struct dirent \*entry;

   DIR \*dir = opendir(path);

   if (dir == NULL) {

      return;

   }

   while ((entry = readdir(dir)) != NULL) {

   cout << entry->d\_name << endl;

   }

   closedir(dir);

}

int main() {

   list\_dir("/home/username/Documents");

}

## Output

This will give the output −

a.out

hello.cpp

hello.py

hello.o

hydeout

my\_file.txt

watch.py

#### 4.2.4 Simple Program to List a Directory

Here’s a simple program that prints the names of the files in the current working directory:

#include <stdio.h>

#include <sys/types.h>

#include <dirent.h>

int

main (void)

{

DIR \*dp;

struct dirent \*ep;

dp = opendir ("./");

if (dp != NULL)

{

while (ep = readdir (dp))

puts (ep->d\_name);

(void) closedir (dp);

}

else

perror ("Couldn't open the directory");

return 0;

}