**// II.A. Base case, look for file itself in 'dirnameCPtr':**

void printdir(char dirnameCPtr, int depth)

{

  // Check if the directory exists & can be opened

    DIR dirnameCPtr;

    struct dirent \*entry;

    struct stat statbuf;

    if((dp = opendir(dir)) == NULL) {

        fprintf(stderr,"cannot open directory: %s\n", dir);

        return;

    }

    chdir(dir);

  // Reading the directory

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

        lstat(entry->d\_name,&statbuf);

        if(S\_ISDIR(statbuf.st\_mode)) {

            /\* Found a directory, but ignore . and .. \*/

            if(strcmp(".",entry->d\_name) == 0 ||

                strcmp("..",entry->d\_name) == 0)

                continue;

            printf("%\*s%s/\n",depth,"",entry->d\_name);

            /\* Recurse at a new indent level \*/

            printdir(entry->d\_name,depth+4);

        }

        else printf("%\*s%s\n",depth,"",entry->d\_name);

    }

    chdir("..");

    closedir(dirnameCPtr);

}

int main()

{

    printf("Directory scan of /home:\n");

    printdir("/home",0);

    printf("done.\n");

    exit(0);

}