

**// II.B. Recursive case: look in subdirectories of 'dirnameCPtr':**

```
static int listDir_helper(char* path) {
    char slash = '\\'; // or maybe slash = '/'
    DIR* dirnameCPtr;
    struct dirent *ent;
    char *NulPosition = &path[strlen(path)];
    if ((dir = opendir(path)) != NULL) {

        while ((ent = readdir(dir)) != NULL) {
            printf("%s%c%s\n", path, slash, ent->d_name);
            if (ent->d_type == DT_DIR) {
                if ((strcmp(ent->d_name, ".") != 0) && (strcmp(ent->d_name, "..") != 0)) {
                    sprintf(NulPosition, "%c%s", slash, ent->d_name);
                    if (listDir_helper(path)) {
                        closedir(dir);
                        return 1;
                    }
                    *NulPosition = '\0';
                }
            }
        }

        closedir(dir);
        return 0;
    }
}
```

```
int listDir(const char* path){  
    struct dirent *ent;  
    char pathmax[MAXPATHLEN+1+sizeof(ent->d_name)+1];  
    if (strlen(path) > MAXPATHLEN) {  
        return 1;  
    }  
    strcpy(pathmax, path);  
    return listDir_helper(pathmax);  
}
```

```
int main() {  
    listDir2("dirnameCPtr");  
    return 0;  
}
```