



Faculty of Computers and Information system, Assiut University.

Project OS

Version 1.0 (File system)

Submitted by:

- 1-Arwa Mostafa Kamal
- 2-Omnia Tarek Farghaly
- 3- Sohaila Essam El Din Mohamed

Submitted to:

D/Khaled Fathy



Edit with WPS Office

1)struct File

responsible for every detail about files and its working flow.

#void getNameFile(string path)

Get the path of the file we want to deal with.

#bool read(string s)

Read details about file, its size, content, open ,close it, and calculate memory space .

#void write(string s, string newname)

Write information about file we dealt with before when we print its information.

#void print()

Print information about every file in our directory.

2)struct Folder

responsible for every detail about folders, directory and its working flow.

#vector<File> files;

#vector<Folder> folders;

Two vectors to store every files and folders we deal with in our partion.

#void copyFromMeToMe(int idx, vector<string> path2, Folder F)

Function to copy files and folder from our shell to other place(folder) in the same shell , it contains information about file or folder if them exist or not and copy it to the wanted place.

#bool copyFolderTo(vector<string> v)

Function to copy folder from our shell to other place(folder) in our computer and return 1 if the process end successfully , it contains information about file or folder if them exist or not and copy it to the wanted place.



```
#pair<bool, Folder> openChild (vector<string> v)
```

To make new folder to list under one parent in the directory.

```
#void makeDir(vector<string> v)
```

Function to make a new directory(folder) with calculation of its size and to fetch if it is a free space of it or not .

```
#void deleteFile(vector<string> v)
```

Function to delete or (remove) file we want from our shell temporary or permanently if we want.

```
#void deleteFolder(vector<string> v)
```

Function to delete or (remove) folder we want from our shell temporary or permanently if we want.

```
#void add Folder(string n, int idx, vector<string> path)
```

Function take a path folder and check if the folder already exist or not , if not (mkdir) function will start its process if exist it will rise a message that is exist.

```
#void listFilesRecursively(char *base Path)
```

Function to list Files Recursively in the partion we stand in.

```
#string getNameFolder(string path)
```

Function to get the folder name by its path given from user and check the validity of its syntax.

```
#void copyfolder(vector<string> v)
```

Function to copy folder from our shell to other place(folder) in our shell, it contains information about file or folder if them exist or not and copy it to the wanted place.



```
#void print()
```

Information about folder or dir itself when we press dir and all files and folders list.

```
#void copyFile(vector<string> v)
```

Function to copy file from our shell to other place(folder) in our shell, it contains information about file or folder if them exist or not and copy it to the wanted place.

```
#void WriteFile(vector<string> v)
```

Function to write details about new file in our shell into memory.

```
#void getFolder (string n, bool &ok, Folder &ch)
```

Function to get the folder we made before to be ready to use from user.

```
#void getFile (string n, bool &ok, File &ch)
```

Function to get the file we made before to be ready to use from user.

```
#bool pestFolder (Folder f)
```

Function to paste the folder we copy from our shell to the folder in our shell.

```
#bool pestFile(File f)
```

Function to paste the file we copy from our shell to the folder in our shell.

```
#void PrintPath(vector<Folder> Midportion)
```

Function to print the path of our shell with the size of it.



```
#vector<string> splitComand(string s)
```

Function to split the commands from the path and files,folders names .





Edit with WPS Office