



Shaheed Zulfikar Ali Bhutto
Institute of Science & Technology

“PROJECT REPORT”

COURSE: OBJECT ORIENTED PROGRAMMING

Group Members:

Roha Ali, 2112124

Syeda Mahnoor Hasan, 2112135

Asma Hafiz Mir Nawaz, 2112106

Respected Teachers:

Syed Muhammad Hassan (Lab)

Ali Mobin (Theory)

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Project:
“FILE MANAGEMENT SYSTEM”

Summary:

This is a file management system project. We have used many different features in this program. Such as how a file is created, read, delete, append, copy and merging of files. For the execution of these features in the program we have also created a menu which shows different options and by selecting any option, a certain feature is implemented in the program. This program is made using object-oriented programming techniques such as creation of classes and execution of different loops for smooth running of the program. From implementation of menu we have used the switch case, which makes it easier for the user to operate the program.

Features:

1. You can CREATE files using this management system.
2. You can VIEW files using this management system.
3. You can EDIT files using this management system.
4. You can DELETE files using this management system.
5. You can APPEND (make changes to an existing file) files using this management system.
6. You can COPY files using this management system.
7. You can MERGE files using this management system.

Limitations:

1. You can only use the features of this management system by staying in the same Drive. Like if you want to copy a file you can only copy it to another folder of the same Drive. You cannot copy a file to another Drive's folder.
2. The files created using this management system (other than text files) can only be viewed by using this management system. So, this management system is only suitable for text files.

Code Description:

There are basically three classes named main class, operate and file Management class.

Main:

1. In main class, we create a menu of file management function where we create, delete, read, update, append, copy and, merge file.
2. The menus are:
 - Enter 1 to create a new file.
 - Enter 2 to read the file.
 - Enter 3 to update the file.

- Enter 4 to delete the file.
 - Enter 5 to append the file.
 - Enter 6 to copying the file.
 - Enter 7 to merge the file.
3. Then in the main class, we used the while loop to perform the menus which will be given in the above.
 4. The while loop works as according to given menus, and we give a choice that to perform a specific task.
 5. After put the number which you want to perform if the number lies between 1 to 7 it executes and if you select zeros then the program terminated.
 6. After select the menu, if you choose a number from 1 to 7 then user given the input to perform this task.

File management:

1. Now, we explain all the menus that how they work in the file management file.
2. When we talk about the user given the input and how we perform operation.
3. If the user press 1, then the file be created as according to given the input of user.
 - In the file can created you must give these three input the file name, directory name where you create a file and content). Then we used if statement is if the file is not in this directory so you can create a file. Then if the file is already created in this directory, then the compiler will give you message that file is already exists and else the file is created successfully and if they have some error then the compiler give you message that failed to create new file.
4. If the user press 2, then the file can read as according to given the input of user.
 - To read the file, you can give a file name and their path if there is any file of their name in the same directory then you can easily read the file otherwise compiler give you message that this file doesn't exist.
5. If the user press 3, then the file update as according to given the input of user.
 - To update the file, enter the content of this file if the file is there then the file is update and saved successfully otherwise compiler give you message that file doesn't exist.
6. If the user press 4, then the file deleted as according to given the input of user.
 - To delete the file, you must give file path. If the file is there then the file is successfully deleted otherwise compiler gives you message that file doesn't exist.
7. If the user press 5, then the file can append as according to given the input of user.
 - To append the file, enter the content of this file if the file is there then the file is update and saved successfully otherwise compiler give you message that file doesn't exist.
8. If the user press 6, then you can copy the file as according to given the input of user.
 - To copy the file, you must give the file name and destination. If your file name is correct but destination is not existed then you can't copy this file and compiler give you message that directory doesn't exist you can create new. If the file is already existed in this

destination folder otherwise compiler give you message that no such file exists so you can copy the file and the file is copy successfully.

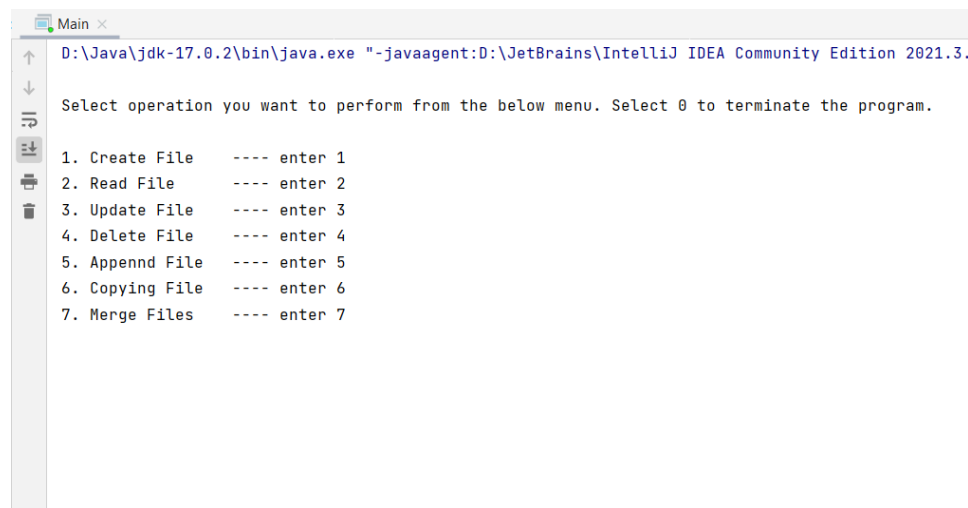
9. If the user press 7, then the file can merge as according to given the input of user.
 - To merge the file, choose the file which you merge in another file. If you choose of the file which you merge in another both the path of these file is correct then the file easily merge otherwise compiler give you message that file doesn't exist.

Operate:

1. In operate class, we just used switch statement to perform the task.
2. If we enter 1 then the file can create and then we used break statement to just end the operation.
3. If we enter 2 then the file can read and then we used break statement to just end the operation.
4. If we enter 3 then the file can update and then we used break statement to just end the operation.
5. If we enter 4 then the file can easily delete and then we used break statement to just end the operation.
6. If we enter 5 then the file can update and then we used break statement to just end the operation.
7. If we enter 6 then the file can copy and then we used break statement to just end the operation.
8. If we enter 7 then the file can merge and then we used break statement to just end the operation there is no need to used break statement because it's the last function and after perform this the program end successfully so there is no restriction to used break statement.

Output:

The menu is shown



```

Main x
D:\Java\jdk-17.0.2\bin\java.exe "-javaagent:D:\JetBrains\IntelliJ IDEA Community Edition 2021.3.
Select operation you want to perform from the below menu. Select 0 to terminate the program.
1. Create File      ---- enter 1
2. Read File       ---- enter 2
3. Update File     ---- enter 3
4. Delete File     ---- enter 4
5. Appennd File    ---- enter 5
6. Copying File    ---- enter 6
7. Merge Files     ---- enter 7
```

Create file feature is used

```
6. Copying File ---- enter 6
7. Merge Files ---- enter 7
1
!!!! CREATE FILE !!!!

Enter path of directory to create(
Example: 'D:\folder1')
C:\For
Enter file name to be created
Example:'file1.txt'
for.txt
Enter content of the file
Hello!
No such file exists, creating now...
Successfully created new file: for.txt
File updated and saved successfully.

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File ---- enter 1
2. Read File ---- enter 2
3. Update File ---- enter 3
4. Delete File ---- enter 4
5. Appennd File ---- enter 5
6. Copying File ---- enter 6
7. Merge Files ---- enter 7
```

Read file feature is used

```
5. Appennd File ---- enter 5
6. Copying File ---- enter 6
7. Merge Files ---- enter 7
2
!!!! READ FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt
Hello!

Select operation you want to perform from the below menu. Select 0 to terminate the progrs

1. Create File ---- enter 1
2. Read File ---- enter 2
3. Update File ---- enter 3
4. Delete File ---- enter 4
5. Appennd File ---- enter 5
6. Copying File ---- enter 6
7. Merge Files ---- enter 7
```

Update file feature is used

```
7. Merge Files    ---- enter 7
3
!!!! UPDATE FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt
Enter content of the file
Hello!, Hello!
File updated and saved successfully.

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File    ---- enter 1
2. Read File      ---- enter 2
3. Update File    ---- enter 3
4. Delete File    ---- enter 4
5. Appennd File   ---- enter 5
6. Copying File   ---- enter 6
7. Merge Files    ---- enter 7
2
!!!! READ FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt
Hello!, Hello!

Select operation you want to perform from the below menu. Select 0 to terminate the program.
```

Reading file again to see the changes after updating it

```
7. Merge Files      ---- enter 7
5
!!!! UPDATE FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt
Enter content of the file
Hello again!
File updated and saved successfully.

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File      ---- enter 1
2. Read File        ---- enter 2
3. Update File      ---- enter 3
4. Delete File      ---- enter 4
5. Appennd File     ---- enter 5
6. Copying File     ---- enter 6
7. Merge Files      ---- enter 7
2
!!!! READ FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt
Hello!, Hello! Hello again!

Select operation you want to perform from the below menu. Select 0 to terminate the program.
```

Copy file feature is used

```
6. Copying File     ---- enter 6
7. Merge Files      ---- enter 7
6
!!!! COPY FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\For\for.txt

Enter full path of the destination folder(
Example: 'D:\folder1')
C:\You
No such file exists, copying now....
File copied successfully.

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File      ---- enter 1
2. Read File        ---- enter 2
3. Update File      ---- enter 3
4. Delete File      ---- enter 4
5. Appennd File     ---- enter 5
```


Reading the copied file and using the Merge file feature

```
2
!!!! READ FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\You\you.txt
Something good!

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File      ---- enter 1
2. Read File       ---- enter 2
3. Update File     ---- enter 3
4. Delete File     ---- enter 4
5. Appennd File    ---- enter 5
6. Copying File    ---- enter 6
7. Merge Files     ---- enter 7
7
!!!! MERGE FILES !!!!

Enter full path of the file you want to merge into(
Example: 'D:\folder1\file1.txt')
C:\You\you.txt

Enter full path of the file you want to merge(
Example: 'D:\folder2\file2.txt')
C:\For\for.txt
File merged successfully.
```

Reading the merged file and using the Delete file feature

```
7. Merge Files      ---- enter 7
2
!!!! READ FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\You\you.txt
Something good!

Hello!, Hello! Hello again!

Select operation you want to perform from the below menu. Select 0 to terminate the program.

1. Create File      ---- enter 1
2. Read File        ---- enter 2
3. Update File      ---- enter 3
4. Delete File      ---- enter 4
5. Appennd File     ---- enter 5
6. Copying File     ---- enter 6
7. Merge Files      ---- enter 7
4
!!!! DELETE FILE !!!!

Enter full path of the file(
Example: 'D:\folder1\file1.txt')
C:\You\you.txt
File deleted successfully.
```

Program terminated

Enter full path of the file(
Example: 'D:\folder1\file1.txt')

C:\You\you.txt

File deleted successfully.

Select operation you want to perform from the below menu. Select 0 to terminate the program.

- 1. Create File ---- enter 1
- 2. Read File ---- enter 2
- 3. Update File ---- enter 3
- 4. Delete File ---- enter 4
- 5. Appennd File ---- enter 5
- 6. Copying File ---- enter 6
- 7. Merge Files ---- enter 7

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Select operation you want to perform from the below menu. Select 0 to terminate the program.

- 1. Create File ---- enter 1
- 2. Read File ---- enter 2
- 3. Update File ---- enter 3
- 4. Delete File ---- enter 4
- 5. Appennd File ---- enter 5
- 6. Copying File ---- enter 6
- 7. Merge Files ---- enter 7

0

Process finished with exit code 0