

File Management System

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On MCIT-

Ministry of communication
and Information Technology -Future Skills

Date: 16 , 6 2021

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1. File Management System

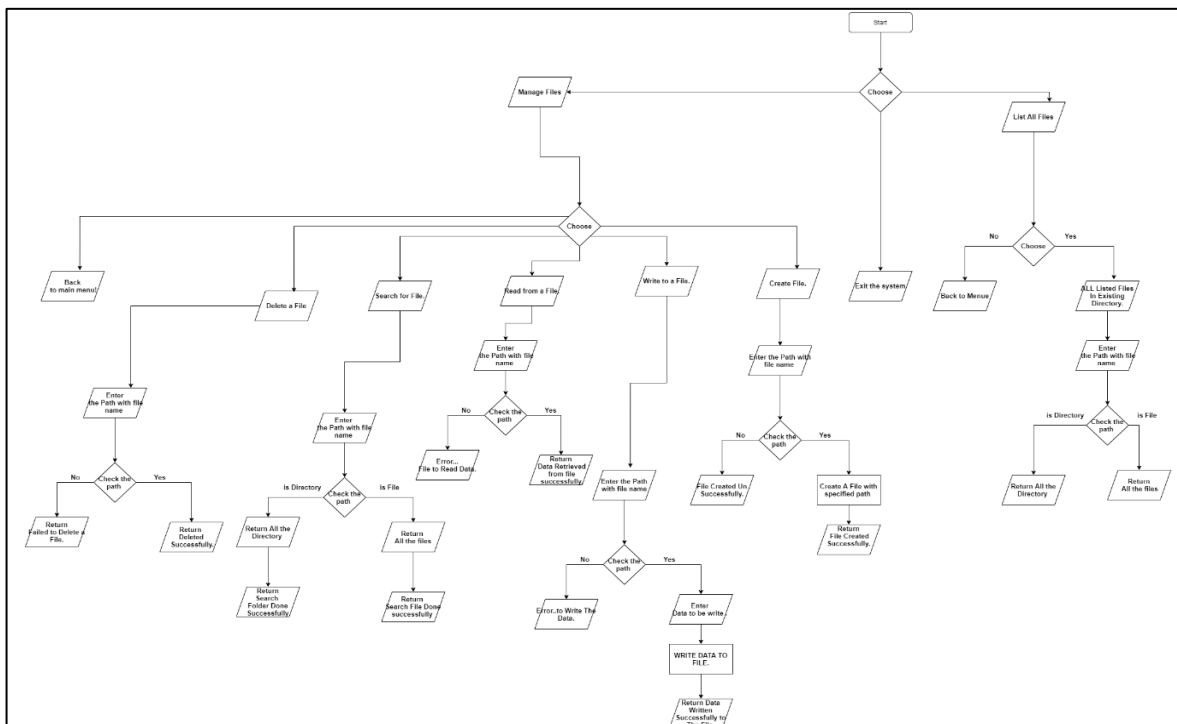
1.1 Project Description

The project is based on managing user files in general in the system. Where the user chooses from the menu whether he wants to know the list of all files in the directory in the system or manage all files. The user can manage files by creating a new file, writing within a specified file, reading from a specified file, deleting a file, and searching for a specified file.

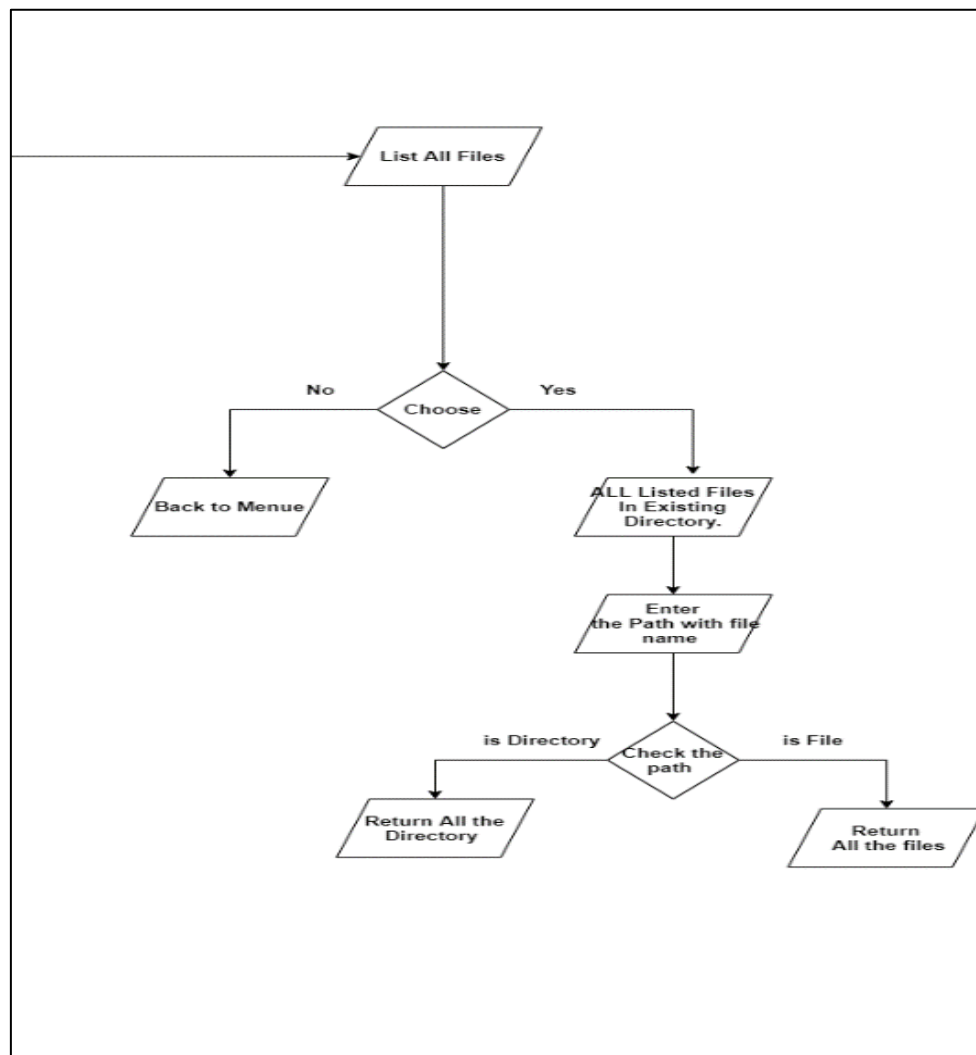
The files will be managed by giving the user a clarification if the process was done correctly or not through a printing process after each process specified by the user.

E.g., if the user searches for a file in a specific folder but that file was previously deleted by the user, it will print 'Directory is empty' or 'Directory is not empty'.

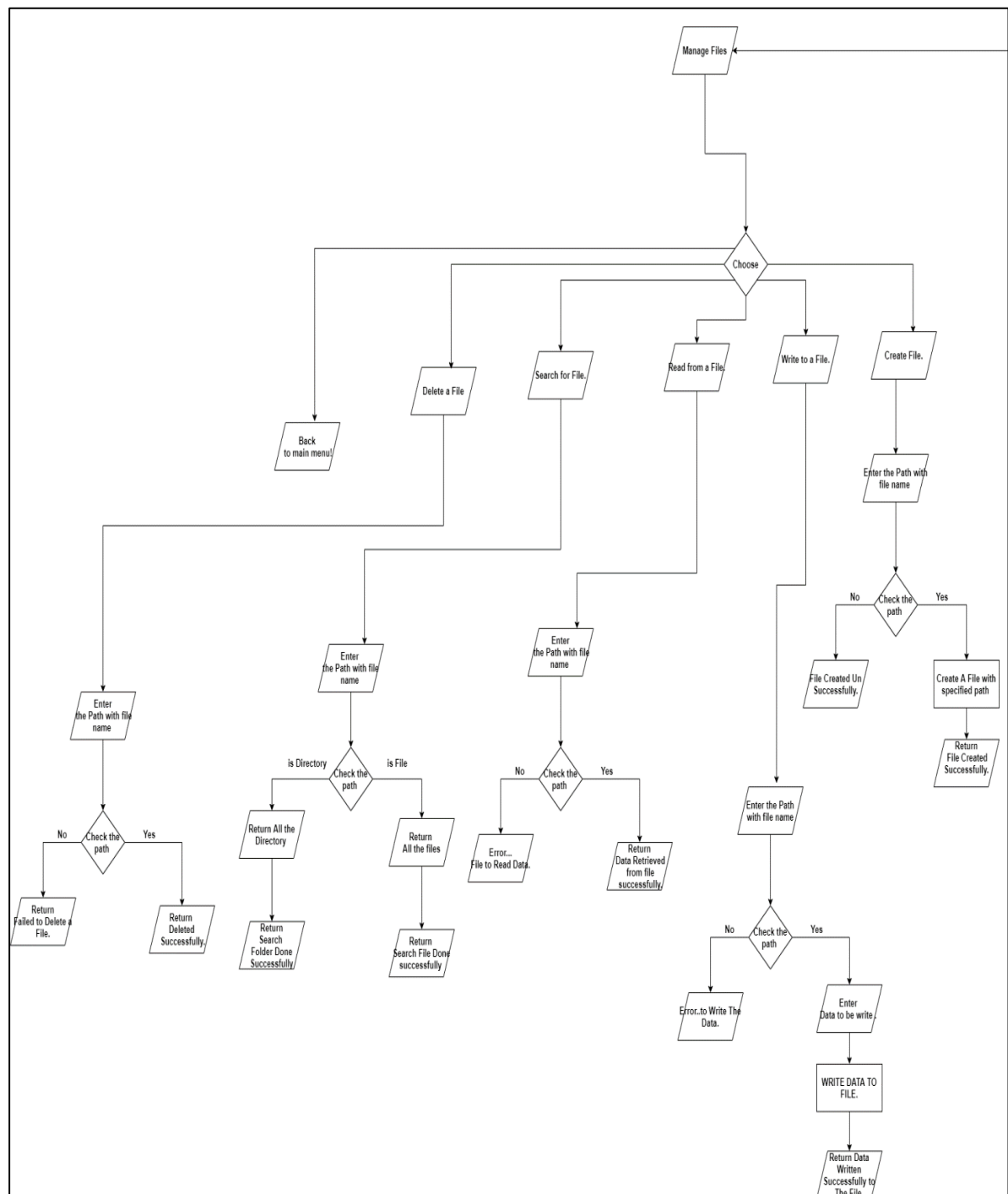
2. Architecture diagram / flow chart



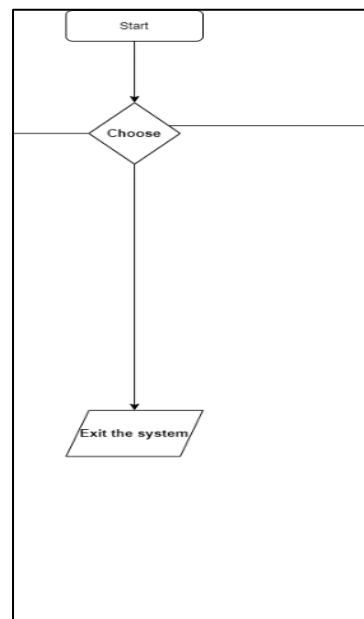
Clearer: Part 1 _ List ALL Files



Clearer: Part 2_ Manage Files

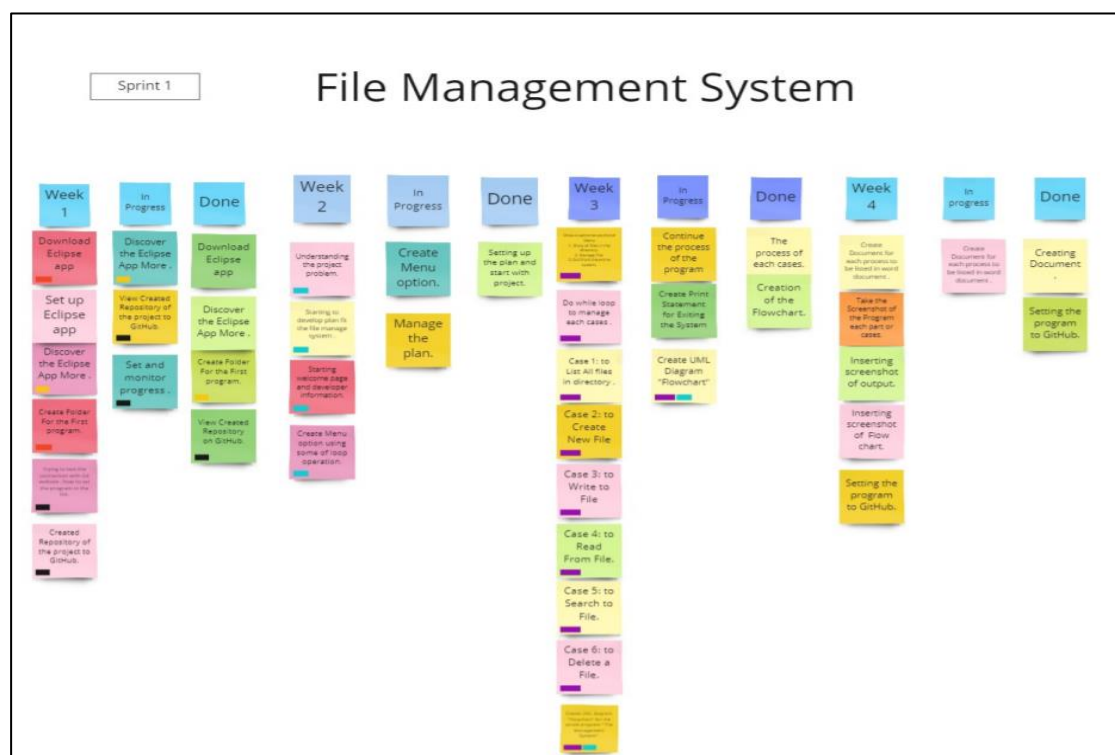


Clearer: part 3_ Exit the system



3. Project Users Stories: (Agile and Scrum)

URL: https://miro.com/app/board/o9J_l-hdT7E=



4. Source code files

```
package ALLFiles;

import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.util.Scanner;

public class CreateAFile {

    public static void main(String[] args) {
        System.out.println(
            "\t\t\t\nMy name : Al-anoud Bo-dokhi. \nI train the Ministry of
            Communications and Information Technology. \nThis First Project For
            Phase_1\n ");
        int choice, choice2;
        String path = "";
        Scanner in = new Scanner(System.in);
        Scanner input = new Scanner(System.in);
        do {
            System.out.println(
                "\t\t\t*****Welcome to Files Managment
                System!*****");
            System.out.println("\nPlease Choose From the Menue What You Want to Do With
            Your Files .\n");
            System.out.println("[1] List ALL Files.");
            System.out.println("[2] Manage Files option. ");
            System.out.println("[3] Exit.");
            System.out.print("Choice: ");
            choice = in.nextInt();
            switch (choice) {
                case 1: // List ALL Files
                    System.out.println(
```

```

"\t\t\t*****List ALL Files
option*****");
System.out.println("[1]ALL Listed Files In Existing Directory.");
System.out.println("[2]Exit...Back to main menu!");
System.out.print("Choice: ");
choice2 = in.nextInt();
switch (choice2) {
case 1:
System.out.println("\t\t\tENTER THE FILE NAME WITH PATH TO LIST ALL FILES
IN THIS DIRECTORY. \n");
String folderpath = input.nextLine();
File folder = new File(folderpath);
File[] files = folder.listFiles();

if (folder.isDirectory()) {
if (folder.list().length > 0) {
System.out.println("\nThe directory " + folder.getPath() + " is not
empty\n");
} else {
System.out.println("\nThe directory " + folder.getPath() + " is empty\n");
}
}

// Iterate the files array
for (File file : files) {
// check if the file
if (file.isFile()) {
System.out.println("File : " + file.getName());
} else {
if (file.isDirectory()) {
System.out.println("Folder : " + file.getName());
}
}
}

System.out.println("\nThe Return of Current File names in Directory.\n ");

break;
case 2:
System.out.println("\t\t\tBack to main menu.....!\n");

```



```

break;
}
break;
case 2: // Manage Files option.

System.out.println(
"\t\t\t*****Manage Files
option*****");
System.out.println("[1] Create File.");
System.out.println("[2] Write to a File.");
System.out.println("[3] Read from a File.");
System.out.println("[4] Search for File.");
System.out.println("[5] Delete a File");
System.out.println("[6] Exit");
System.out.print("Choice: ");
choice2 = in.nextInt();
switch (choice2) {
case 1:
// Create or Add new file with entered path
System.out.println("\t\t\tENTER THE PATH WITH THE FILE NAME YOU WANT TO
CREATE THE FILE TO. \n");
String filename = input.nextLine();
// String directory =System.getProperty("user.home");
path = File.separator + filename;
File myFile = new File(path);
myFile.getParentFile().mkdirs();
try {
if (myFile.createNewFile()) {
System.out.print("\nFile Created Successfully.\n");
} else {
System.out.print("\nFile Created Unsuccessfully.\n");
}
} catch (IOException e) {
// TODO Auto-generated catch block
System.out.print("\nError.....Failed to Create The File.\n");
}
break;
case 2:

// Write to File

```

```

System.out.println("\t\t\tENTER THE PATH WITH FILE NAME YOU WANT TO WRITE
THE DATA TO . \n");
filename = input.nextLine();
System.out.println("\t\t\tWRITE DATA TO FILE.\n ");
String data = input.nextLine();
try {
    FileWriter output = new FileWriter(filename);
    BufferedWriter br = new BufferedWriter(output);
    output.write(data);
    System.out.print("\nData Written Successfully to The File.\n");
    System.out.print("\n");
    output.close();
    br.close();
} catch (IOException e) {
    // TODO Auto-generated catch block
    System.out.print("\nError.... to Write The Data.\n");
    System.out.print("\n");
}
break;
case 3:
    // Read or Retrieve data from file
    System.out.println("\t\t\tENTER THE PATH WITH THE FILE NAME YOU WANT TO
    READ. \n");
    filename = input.nextLine();
    try {
        FileReader readData = new FileReader(filename);
        BufferedReader br = new BufferedReader(readData);
        String line;
        while ((line = br.readLine()) != null) {
            System.out.print(line);
        }
        System.out.print("\n");
        System.out.println("\nData Retrieved from file successfully.\n");
        System.out.print("\n");
        readData.close();
        br.close();
    } catch (IOException e) {
        // TODO Auto-generated catch block
        System.out.println("\nError...File to Read Data.\n");
    }
}

```

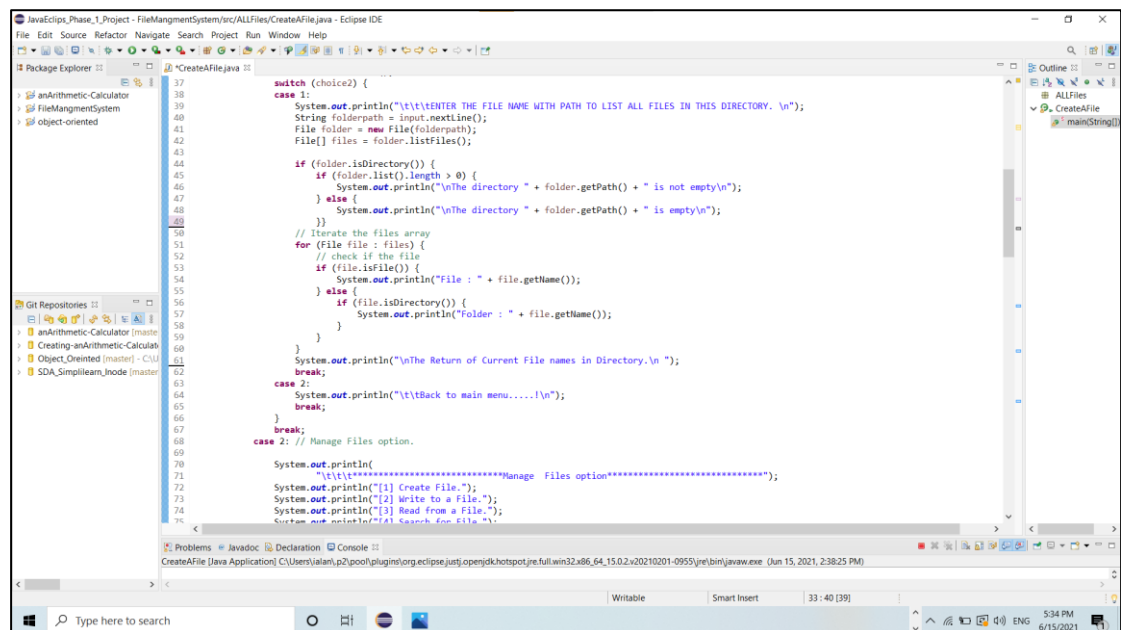
```

break;
case 4:
    // Search the file

    System.out.print("\t\t\tENTER THE PATH DIRECTORY TO SEARCH.\n");
    String ser = input.nextLine();
    path = File.separator + ser;
    File fs = new File(path);
    File[] files = fs.listFiles();
    for (File f : files) {
        if (f.isFile()) {
            System.out.println("\nSearch File Done successfully : \n" + f.getName());
        } else {
            if (f.isDirectory()) {
                System.out.println("\nSearch Folder Done Successfully : \n" + f.getName());
            }
        }
    }
    System.out.println("\nSearch Done Successfully.\n");
    break;
case 5:
    // Delete file from directory
    System.out.println("\t\t\tENTER THE PATH OR THE FILE NAME TO BE
    DELETED.\n");
    filename = input.nextLine();
    path = File.separator + filename;
    File fpath = new File(path);
    if (fpath.delete()) {
        System.out.println("\nFile : " + fpath.getName() + " Deleted
        Successfully.\n");
    } else {
        System.out.println("\nFailed to Delete a File.\n");
    }
    break;
case 6:
    System.out.println("\nBack to main menu!\n");
    break;
}
break;
case 3:

```

Screen Shot of the Source Code:



JavaEclipse_Phase_1_Project - FileMangmentSystem/src/ALLFiles/CreateFile.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- anArithmetic-Calculator
- FileMangmentSystem
- object-oriented

Git Repositories

- anArithmetic-Calculator (master)
- Creating-anArithmetic-Calculab (master)
- Object_Oriented (master) - C:\U
- SDA_Simplelearn_Inode (master)

```
68 case 2: // Manage Files option.
69
70 System.out.println(
71     "\t\t\t*****Manage Files option*****");
72 System.out.println("[1] Create File.");
73 System.out.println("[2] Write to a File.");
74 System.out.println("[3] Read from a File.");
75 System.out.println("[4] Search for File.");
76 System.out.println("[5] Delete a File.");
77 System.out.println("[6] Exit.");
78 System.out.print("choice: ");
79 choice2 = in.nextInt();
80 switch (choice2) {
81     case 1:
82         // Create or Add new file with entered path
83         System.out.println("\t\t\tENTER THE PATH WITH THE FILE NAME YOU WANT TO CREATE THE FILE TO. \n");
84         String filename = input.nextLine();
85         // String directory =System.getProperty("user.home");
86         path = File.separator + filename;
87         File myFile = new File(path);
88         myFile.getParentFile().mkdirs();
89         try {
90             if (myFile.createNewFile()) {
91                 System.out.print("\nFile Created Successfully.\n");
92             } else {
93                 System.out.print("\nFile Created Unsuccessfully.\n");
94             }
95         } catch (IOException e) {
96             // TODO Auto-generated catch block
97             System.out.print("\nError.....Failed to Create The File.\n");
98         }
99         break;
100     case 2:
101         // Write to File
102         System.out.println("\t\t\tENTER THE PATH WITH FILE NAME YOU WANT TO WRITE THE DATA TO. \n");
103         filename = input.nextLine();
104         System.out.println("\t\t\tWRITE DATA TO FILE.\n");
105         Path path2 = new Path(filename);
```

Problems Javadoc Declaration Console

CreateFile [Java Application] C:\Users\alan.p2\poo\plugins\org.eclipse.justi.openjdk hotspot.jre.full.win32.x86_64.15.0.2-v20210201-0955\jre\bin\javaw.exe (Jun 15, 2021, 2:38:25 PM)

Type here to search

JavaEclipse_Phase_1_Project - FileMangmentSystem/src/ALLFiles/CreateFile.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- anArithmetic-Calculator
- FileMangmentSystem
- object-oriented

Git Repositories

- anArithmetic-Calculator (master)
- Creating-anArithmetic-Calculab (master)
- Object_Oriented (master) - C:\U
- SDA_Simplelearn_Inode (master)

```
142 case 4:
143     // Search the file
144     System.out.println("\t\t\tENTER THE PATH DIRECTORY TO SEARCH.\n");
145     String ser = input.nextLine();
146     path = File.separator + ser;
147     File fs = new File(path);
148     File[] files = fs.listFiles();
149     for (File f : files) {
150         if (f.isFile()) {
151             System.out.println("\nSearch File Done successfully : \n" + f.getName());
152         } else {
153             if (f.isDirectory()) {
154                 System.out.println("\nSearch Folder Done Successfully : \n" + f.getName());
155             }
156         }
157     }
158     System.out.println("\nSearch Done Successfully.\n");
159     break;
160 case 5:
161     // Delete file from directory
162     System.out.println("\t\t\tENTER THE PATH OR THE FILE NAME TO BE DELETED.\n");
163     filename = input.nextLine();
164     path = File.separator + filename;
165     File fpath = new File(path);
166     if (fpath.delete()) {
167         System.out.println("\nFile : " + fpath.getName() + " Deleted Successfully.\n");
168     } else {
169         System.out.println("\nFailed to Delete a File.\n");
170     }
171     break;
172 case 6:
173     System.out.println("\nBack to main menu!\n");
174     break;
175 }
176 break;
177 case 3:
178     System.out.println("\nExiting the system!\n");
179 }
180
```

Problems Javadoc Declaration Console

CreateFile [Java Application] C:\Users\alan.p2\poo\plugins\org.eclipse.justi.openjdk hotspot.jre.full.win32.x86_64.15.0.2-v20210201-0955\jre\bin\javaw.exe (Jun 15, 2021, 2:38:25 PM)

Type here to search

```

100      case 2:
101          // Write to File
102          System.out.println("\t\t\t\t\tENTER THE PATH WITH FILE NAME YOU WANT TO WRITE THE DATA TO . \n");
103          filename = input.nextLine();
104          System.out.println("\t\t\t\t\tWRITE DATA TO FILE.\n ");
105          String data = input.nextLine();
106          try {
107              FileWriter output = new FileWriter(filename);
108              BufferedWriter br = new BufferedWriter(output);
109              output.write(data);
110              System.out.println("\nData Written Successfully to The File.\n");
111              System.out.print("\n");
112              output.close();
113              br.close();
114          } catch (IOException e) {
115              // TODO Auto-generated catch block
116              System.out.print("\nError..... to Write The Data.\n");
117              System.out.print("\n");
118          }
119          break;
120      case 3:
121          // Read or Retrieve data from file
122          System.out.println("\t\t\t\t\tENTER THE PATH WITH THE FILE NAME YOU WANT TO READ. \n");
123          filename = input.nextLine();
124          try {
125              FileReader readData = new FileReader(filename);
126              BufferedReader br = new BufferedReader(readData);
127              String line;
128              while ((line = br.readLine()) != null) {
129                  System.out.print(line);
130              }
131              System.out.print("\n");
132              System.out.println("\nData Retrieved from file successfully.\n");
133              System.out.print("\n");
134              readData.close();
135              br.close();
136          } catch (IOException e) {
137              // TODO Auto-generated catch block
138          }

```

```

172          break;
173      case 6:
174          System.out.println("\nBack to main menu!\n");
175          break;
176      }
177      break;
178      case 3:
179          System.out.println("\nExiting the system!\n");
180          break;
181      }
182      } while (choice != 3);
183      // End Main
184      }
185      }
186  }

```

5. Output Screen shot

1.Welcome Screen

```

My name : Al-anoud Bo-dokhi.
I train the Ministry of Communications and Information Technology.
This First Project For Phase_1

*****Welcome to Files Management System!*****

Please Choose From the Menu What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
choice:

```

2.Choose 1: List ALL Files in Existing Directory

```
Please Choose From the Menue What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 1
*****List ALL Files option*****
[1]ALL Listed Files In Existing Directory.
[2]Exit...Back to main menu!
Choice: 1
ENTER THE FILE NAME WITH PATH TO LIST ALL FILES IN THIS DIRECTORY.

C:\Users\ialan\OneDrive\Desktop
|
The directory C:\Users\ialan\OneDrive\Desktop is not empty

File : 4kvideodownloader_4.12.4_x64.msi
File : 7z1900-x64.exe
File : android-studio-ide-201.7042882-windows.exe
File : AtomSetup-x64.exe
File : Cisco Packet Tracer 6.2 for Windows Student Version (no tutorials).exe
File : Cisco Packet Tracer 6.2 for Windows Student Version (no tutorials).rar
File : DB.Browser.for.SQLite-3.11.2-win64.msi
File : desktop.ini
File : DiscordSetup.exe
Folder : DOSBoxPortable
File : eclipse-inst-jre-win64.exe
File : File_managment_System_Flowchart.pdf
Folder : JavaEclips_Phase_1_Project
File : jdk-8u191-windows-x64.exe
Folder : MyProjects
File : mysql-installer-community-8.0.13.0.msi
Folder : My_personal_Work
File : nbr2player.msi
File : netbeans-ide-8-2.exe
File : OfficeSetup.exe
Folder : pyth3
```

3.Choose 2: Create File

```
Please Choose From the Menue What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2
*****Manage Files option*****
[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 1
ENTER THE PATH WITH THE FILE NAME YOU WANT TO CREATE THE FILE TO.

C:\Users\ialan\OneDrive\Desktop\test\Data.txt

File Created Successfully.
```

4.Choose 2: Write to File

```
Please Choose From the Menue What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2

*****Manage Files option*****

[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 2

ENTER THE PATH WITH FILE NAME YOU WANT TO WRITE THE DATA TO .

C:\Users\ialan\OneDrive\Desktop\test\Data.txt
WRITE DATA TO FILE.

I am Alanoud Bo-dokhi Nice to Meet You

Data Written Successfully to The File.
```

5. Choose 2: Read From File.

```
Please Choose From the Menue What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2

*****Manage Files option*****

[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 3

ENTER THE PATH WITH THE FILE NAME YOU WANT TO READ.

C:\Users\ialan\OneDrive\Desktop\test\Data.txt
I am Alanoud Bo-dokhi Nice to Meet You

Data Retrieved from file successfully.
```

6.Choose 2: Search File in directory

```
[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2

*****Manage Files option*****

[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 4

ENTER THE PATH DIRECTORY TO SEARCH.

C:\Users\ialan\OneDrive\Desktop\test

Search File a.txt Done successfully

Search File b.accdb Done successfully

Search File c.bmp Done successfully

Search File Data.txt Done successfully

Search File e_nub Done successfully
```


7.Choose: Delete A File.

```
Please Choose From the Menu What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2
*****Manage Files option*****

[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 5
ENTER THE PATH OR THE FILE NAME TO BE DELETED.

C:\Users\ialan\OneDrive\Desktop\test\d.txt

Failed to Delete a File.
```

8.Choose 2: Back to Main Menu

```
Please Choose From the Menu What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 2
*****Manage Files option*****

[1] Create File.
[2] Write to a File.
[3] Read from a File.
[4] Search for File.
[5] Delete a File
[6] Exit
Choice: 6
|
Back to main menu!
```

9.Choose 3: Exiting the System.

```
*****Welcome to Files Managment System!*****

Please Choose From the Menu What You Want to Do With Your Files .

[1] List ALL Files.
[2] Manage Files option.
[3] Exit.
Choice: 3
|
Exiting the system!
```