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Batch	December 2021 Cohort
Project Title	Phase 1 - Implement OOPS using JAVA with Data Structures and Beyond
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**Source Code**

```
package lockedMe.comPackage;

import java.io.File;
import java.io.FileWriter;
import java.util.LinkedList;
import java.util.Scanner;

public class LockedMe
{
    static final String projectFilePath = "C:\\Users\\Karl Chetcuti\\Simplilearn Assignments\\SimpliLearn Phase 1 Project - 22-01-2022\\LockedMeFiles";
    static final String errorMsg = "Some error occured, please contact administrator on : karlcht@hotmail.com";
    public static void displayMenu()
    {
        System.out.println("*****");
        System.out.println("\t\t Welcome to LockedMe.com ");
        System.out.println("*****");
        System.out.println("\t Developed by Karl Joseph Chetcuti");
        System.out.println("*****");
        System.out.println("\t\t1. Display all the files");
        System.out.println("\t\t2. Add a new file");
        System.out.println("\t\t3. Delete a file");
        System.out.println("\t\t4. Search a file");
        System.out.println("\t\t5. Exit");
        System.out.println("");
    }

    /**
     * This function will return all the files from the project directory.
     */
    public static void getAllFiles()
```

```
{  
  
    Scanner obj = new Scanner(System.in);  
    try  
    {  
  
        File directoryPath = new File(projectFilePath);  
        File fileList[] = directoryPath.listFiles();  
  
        if(fileList.length == 0)  
            System.out.println("No files in the specified directory:");  
        else  
        {  
            for(var file : fileList)  
                System.out.println(file.getName());  
        }  
  
    }  
  
    catch(Exception Ex)  
    {  
  
        System.out.println(errorMsg);  
    }  
  
    finally  
    {  
  
        System.out.println("\n"+"Press return key to continue");  
        obj.nextLine();  
    }  
}
```

```
/**
 * Method to create files but does not permit overwriting of existing files
 */
public static void createFiles()
{
    String fileName;
    int counter;
    Scanner obj = new Scanner(System.in);

    try
    {

        System.out.println("Enter file name");
        fileName = obj.nextLine();

        File f= new File(projectFilePath+"\\ "+fileName);    //file to be delete
        if(f.exists())
            System.out.println("File Exists do not overwrite !");

        else
        {
            FileWriter myWriter = new FileWriter(projectFilePath+"\\ "+fileName);
            System.out.println("Enter how many lines to add");
            counter = Integer.parseInt(obj.nextLine());
            for(int i=1; i <= counter; i++)
            {
                System.out.println("Enter text for line "+i);
                myWriter.write(obj.nextLine()+"\n");
                System.out.println("Successfully wrote to line "+i +"\n");
            }
        }
    }
}
```

```
        System.out.println("Successfully wrote to file ! ");
        myWriter.close();
    }

}

catch (Exception Ex)

    {
        System.out.println(errorMsg);

    }

finally
{

    System.out.println("Press return key to continue");
    obj.nextLine();

}

}

/**
 * This method will delete the files.
 */
public static void deleteFiles()
{

    Scanner obj = new Scanner(System.in);
```

```
try
{
    String fileName;

    System.out.println("Enter file name to be deleted.");
    fileName = obj.nextLine();
    File f= new File(projectFilesPath+"\\ "+fileName);    //file to be delete

    if(f.exists())
    {
        f.delete();
        System.out.println("File: " +fileName+" deleted successfully");
    }
    else
        System.out.println("File not found");
}

catch(Exception Ex)
{
    System.out.println(errorMsg);
}

finally
{
    System.out.println("Press return key to continue");
    obj.nextLine();
}
}
```

```
/**
 * This function will search for files in the directory.
 */
public static void searchFiles()
{

    Scanner obj = new Scanner(System.in);

    try

    {

        String fileName;

        System.out.println("Enter file name to be searched.");
        fileName = obj.nextLine();

        File directoryPath = new File(projectFilePath);
        File listOfFiles[] = directoryPath.listFiles();

        LinkedList <String> filenames = new LinkedList <String>();

        for(var l:listOfFiles)
            filenames.add(l.getName());
        if(filenames.contains(fileName))
            System.out.println("File is available.");
        else
            System.out.println("File not found.");

    }

}
```

```
        catch(Exception Ex)
        {

            System.out.println(errorMsg);

        }

        finally
        {

            System.out.println("Press return key to continue");
            obj.nextLine();

        }

    }

    public static void main(String[] args)

    {

        int input;
        Scanner scan = new Scanner(System.in);

        boolean isSuccessful = false;
        while(!isSuccessful)
        {

            try

            {
```



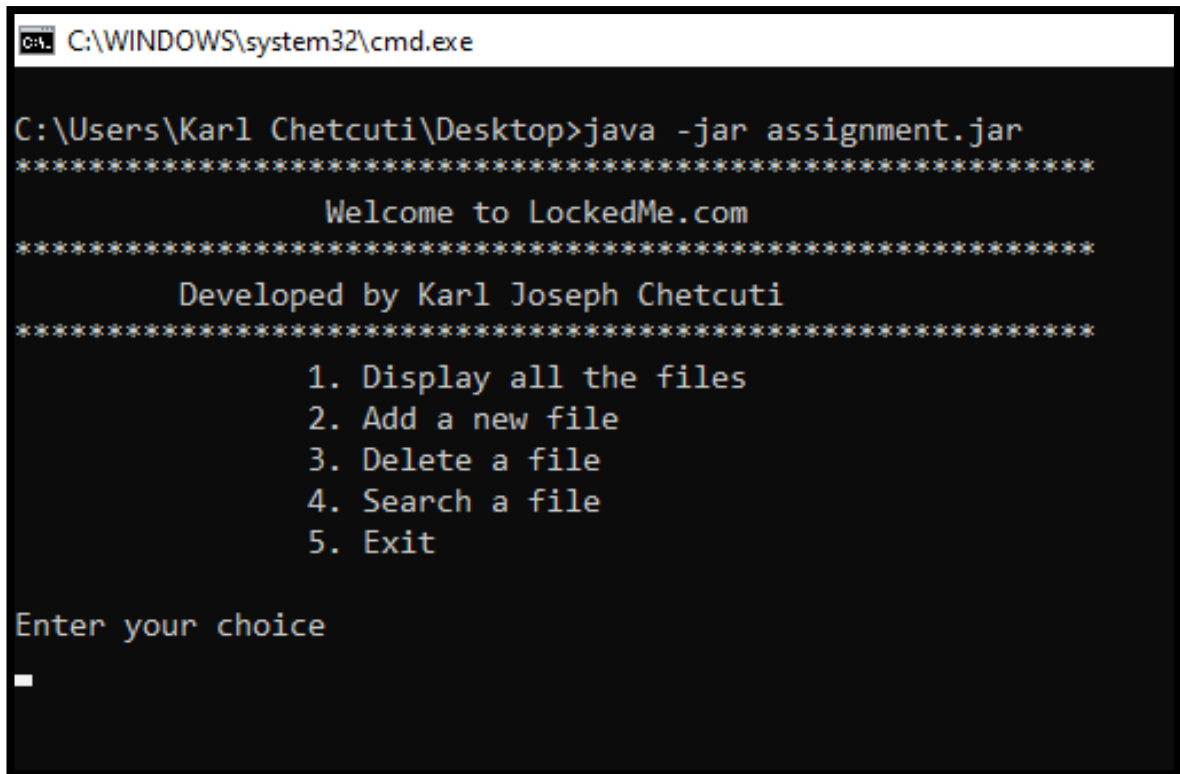
```
do
{

    displayMenu();

    System.out.println("Enter your choice");
    input = Integer.parseInt(scan.nextLine());

    switch(input)
    {
        case 1:
            getAllFiles();
            break;
        case 2:
            createFiles();
            break;
        case 3:
            deleteFiles();
            break;
        case 4:
            searchFiles();
            break;
        case 5:
            System.exit(0);
            break;
        default:
            System.out.println("Invalid option");
            break;
    }
}
```

```
        }  
    }  
  
    while(input != 0);  
    scan.close();  
    isSuccessful = true;  
}  
  
catch( NumberFormatException Ex)  
{  
  
    System.out.println("Please enter a number form 1 to 5.");  
    System.out.println("Press return key to see display menu.");  
    scan.nextLine();  
  
}  
  
catch( Exception EX)  
{  
    System.out.println(errorMsg);  
}  
  
}  
  
}
```

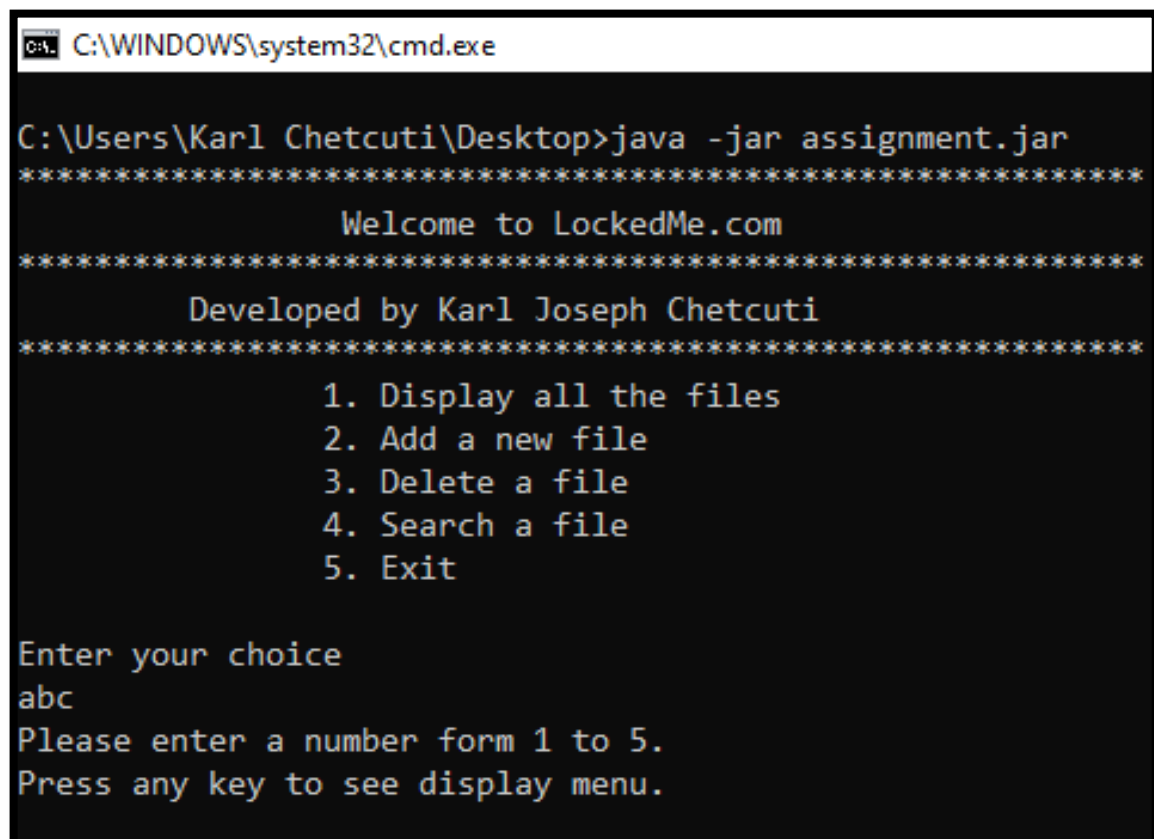


```
C:\WINDOWS\system32\cmd.exe

C:\Users\Karl Chetcuti\Desktop>java -jar assignment.jar
*****
                        Welcome to LockedMe.com
*****
                Developed by Karl Joseph Chetcuti
*****
                1. Display all the files
                2. Add a new file
                3. Delete a file
                4. Search a file
                5. Exit

Enter your choice
_
```

Figure 1 Main Display menu can be seen above.



```
C:\WINDOWS\system32\cmd.exe

C:\Users\Karl Chetcuti\Desktop>java -jar assignment.jar
*****
                        Welcome to LockedMe.com
*****
                Developed by Karl Joseph Chetcuti
*****
                1. Display all the files
                2. Add a new file
                3. Delete a file
                4. Search a file
                5. Exit

Enter your choice
abc
Please enter a number form 1 to 5.
Press any key to see display menu.
```

Figure 2 If the input is not an integer error handling will issue an error "Please enter a number from 1 to 5" and the program will loop unless integer 5 is inputted.

```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****

1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
1
Hello.txt
SL.txt

Press any key to continue
```

Figure 3 When inputting 1 all files in the folder path will be shown.

```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****

1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
2
Enter file name
Hello.txt
File Exists do not overwrite !
Press any key to continue
```

Figure 4 Program will not allow overwriting of file when inputting 2.

```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****

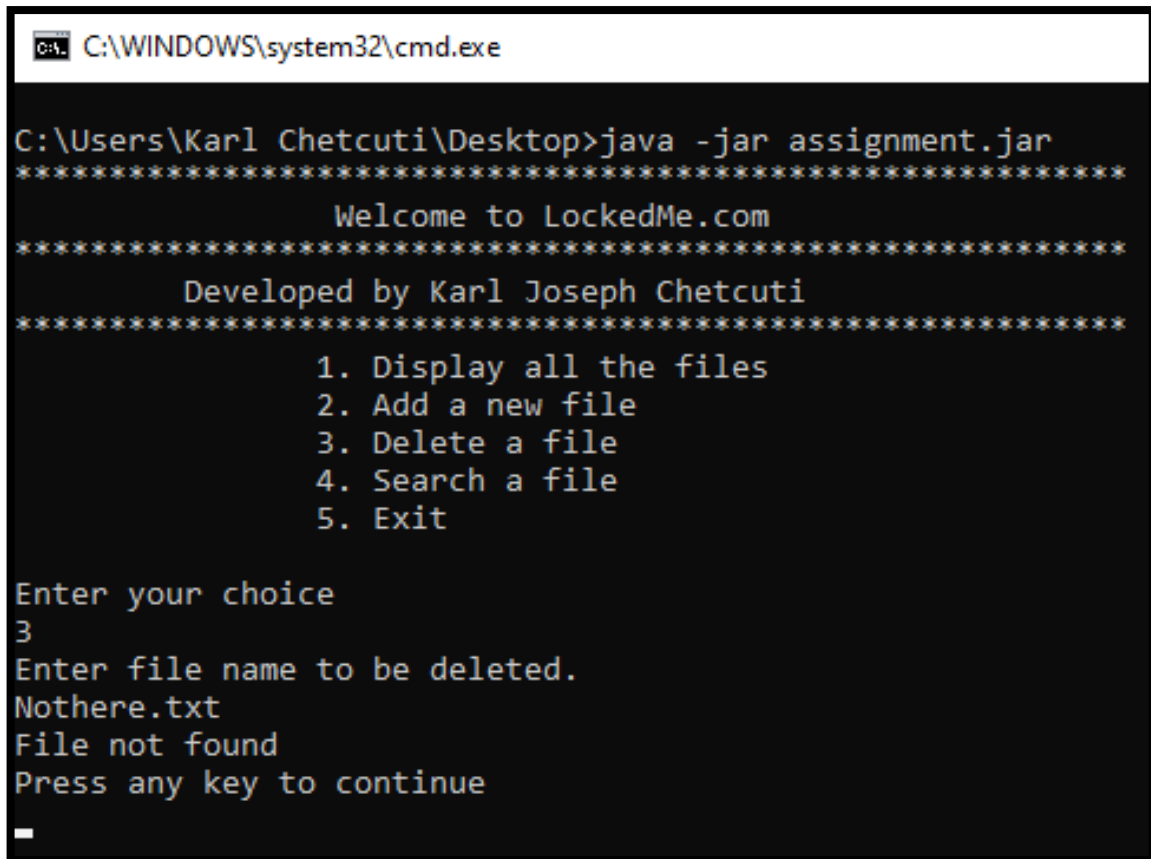
1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
2
Enter file name
HiSL.txt
Enter how many lines to add
2
Enter text for line 1
Hi SL
Successfully wrote to line 1

Enter text for line 2
Learning is great!
Successfully wrote to line 2

Successfully wrote to file !
Press any key to continue
```

Figure 5 When inputting 2, a new file will be created which will not have a duplicate name.

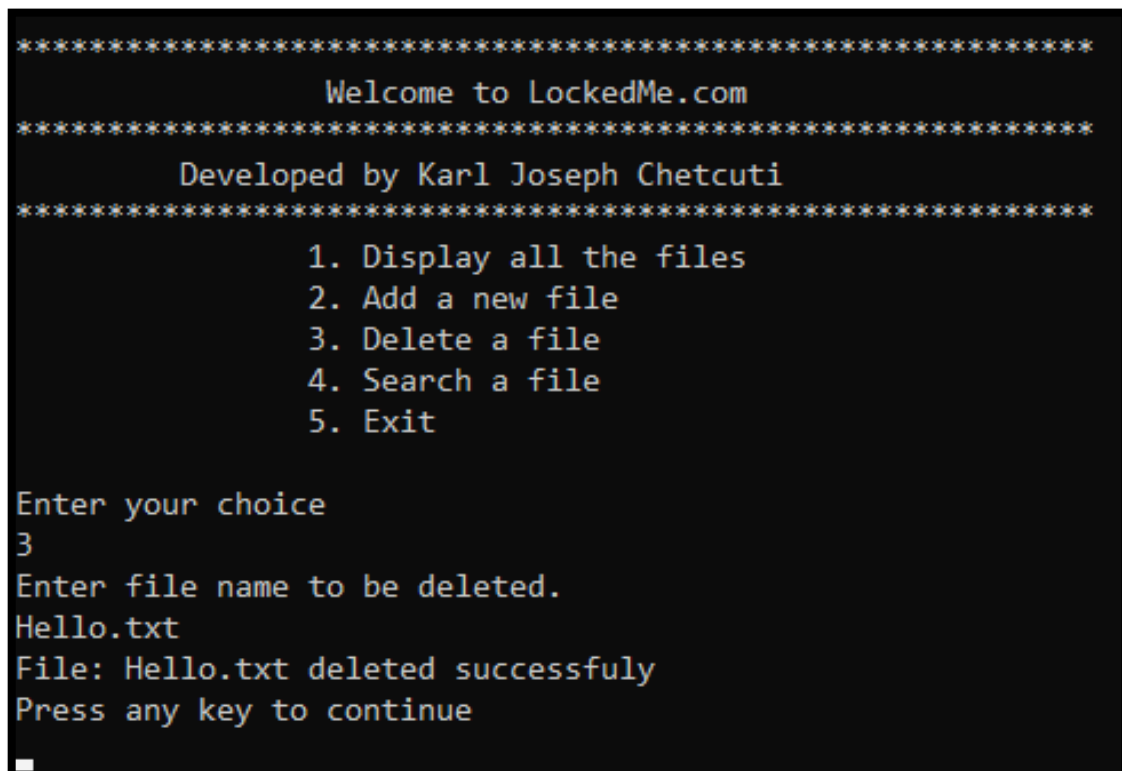


```
C:\WINDOWS\system32\cmd.exe

C:\Users\Karl Chetcuti\Desktop>java -jar assignment.jar
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****
1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
3
Enter file name to be deleted.
Nothere.txt
File not found
Press any key to continue
_
```

Figure 6 When inputting 3 only an existing file can be deleted. Else program will not allow deletion.



```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****
1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
3
Enter file name to be deleted.
Hello.txt
File: Hello.txt deleted successfully
Press any key to continue
_
```

Figure 7 An existing file has been successfully deleted when inputting 3.

```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****

1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
4
Enter file name to be searched.
Nothere.txt
File not found.
Press any key to continue
■
```

Figure 8 When inputting 4 an existing file name must be searched , else "File not found.".

```
*****
Welcome to LockedMe.com
*****
Developed by Karl Joseph Chetcuti
*****

1. Display all the files
2. Add a new file
3. Delete a file
4. Search a file
5. Exit

Enter your choice
4
Enter file name to be searched.
HiSL.txt
File is available.
Press any key to continue
```

Figure 9 When inputting 4 an existing file name can be searched, and file will be found.

Implement OOPS using JAVA with Data Structures and Beyond

