

LockedMe

Virtual Key for your repositories

Source code with output Screenshots

















Project submitted by:

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- Project Structure and Packages

- ✖  > VirtualKey [VirtualKey main]
 - >  JRE System Library [JavaSE-17]
 - ✖  src
 - ✖  Entities
 - >  Directory.java
 - ✖  Screens
 - >  FileOptionsScreen.java
 - >  Screen.java
 - >  WelcomeScreen.java
 - ✖  Services
 - >  DirectoryService.java
 - >  ScreenService.java
 - ✖  VirtualKey
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 - >  module-info.java
 - >  > directory

VirtualApplication.java

```
package VirtualKey;

import Screens.WelcomeScreen;

public class VirtualKeyApplication {
    public static void main(String[] args) {
        WelcomeScreen welcomeScreen = new
WelcomeScreen();
        welcomeScreen.intoWelcomeScreen();
        welcomeScreen.GetUserInput();

    }
}
```

Screen.java

```
package Screens;
```

```
public interface Screen {  
    public void Show();  
    public void NavigateOption(int option);  
    public void GetUserInput();  
}
```

WelcomeScreen.java

```
package Screens;

import java.util.*;

import Services.DirectoryService;
import Services.ScreenService;

public class WelcomeScreen implements Screen {
    private String welcomeText = "Welcome to VirtualKey  
LockerMe.com";
    private String developerName = "Ramakrishna G.  
Kannari";

    private ArrayList<String> options = new  
ArrayList<String>();

    public WelcomeScreen() {
        options.add("1. Show Files");
        options.add("2. Show File Options Menu");
        options.add("3. Quit");
    }

    public void intoWelcomeScreen() {
        System.out.println(welcomeText);
        System.out.println(developerName);
        System.out.println("\n");
        Show();
    }

    @Override
    public void Show() {
        System.out.println("Main Menu");
        for(String s:options) {
```

```

        System.out.println(s);
    }
}

public void GetUserInput() {
    int selectedOption=0;
    while((selectedOption=this.getOption())!=4) {
        this.NavigateOption(selectedOption);
    }
}

@Override
public void NavigateOption(int option) {
    switch(option) {
        case 1:
            this.showFiles();
            this.Show();
            break;

        case 2:

            ScreenService.setCurrentScreen(ScreenService.FileOptionScreen);

            ScreenService.getCurrentScreen().Show();

            ScreenService.getCurrentScreen().GetUserInput();
            break;
        case 3:
            System.out.println("Thanks for using
LockerMe.com");
            System.exit(0);
        default: System.out.println("Invalid Option");
    }
}
}

```

```
public void showFiles() {  
    System.out.println("List of Files:");  
    DirectoryService.PrintFiles();  
  
}  
  
private int getOption() {  
    int option=0;  
    Scanner sc = new Scanner(System.in);  
    try {  
        option = sc.nextInt();  
    }  
    catch(InputMismatchException e) {}  
    return option;  
}  
  
}
```

FileOptionsScreen.java

```
package Screens;

import java.io.File;
import java.nio.file.FileSystems;
import java.nio.file.Path;
import java.util.ArrayList;
import java.util.InputMismatchException;
import java.util.Scanner;

import Entities.Directory;
import Services.ScreenService;

public class FileOptionsScreen implements Screen{

    private Directory dir = new Directory();

    private ArrayList<String> options = new
    ArrayList<String>();

    public FileOptionsScreen(){
        options.add("1. Add a File.");
        options.add("2. Delete a File");
        options.add("3. Search a File");
        options.add("4. Return to Main Menu");
    }

    @Override
    public void Show() {
        System.out.println("File Options Menu:");
        for(String s:options)
            System.out.println(s);
    }
}
```



```

public void GetUserInput() {
    int selectedOption;
    while((selectedOption = this.getOption())!=5) {
        this.NavigateOption(selectedOption);
    }
}

@Override
public void NavigateOption(int option) {
    switch(option) {
        case 1:
            this.AddFile();
            this.Show();
            break;
        case 2:
            this.DeleteFile();
            this.Show();
            break;
        case 3:
            this.SearchFile();
            this.Show();
            break;
        case 4:

            ScreenService.setCurrentScreen(ScreenService.Welcome
Screen);

            ScreenService.getCurrentScreen().Show();

            ScreenService.getCurrentScreen().GetUserInput();
            break;
        default:
            System.out.println("Invalid Option");
            break;
    }
}

```

```
}
```

```
public void AddFile() {  
    System.out.println("Please enter the filename  
to create:");
```

```
    String fileName = this.getInputString();
```

```
    System.out.println("You're adding file named:  
"+fileName);
```

```
    try {  
        Path path =  
FileSystems.getDefault().getPath(Directory.name +  
fileName).toAbsolutePath();
```

```
        File file = new  
File(dir.getName()+fileName);
```

```
        if(file.createNewFile()) {  
            System.out.println("File created:  
"+file.getName());
```

```
            dir.GetFiles().add(file);
```

```
        }
```

```
        else
```

```
        {
```

```
            System.out.println("File already  
exists.");
```

```
        }
```

```
    }
```

```
    catch(Exception e) {
```

```
        System.out.println(e);
```

```

        }

    }

    public void DeleteFile() {
        System.out.println("Please enter the filename
to delete");

        String fileName = this.getInputString();

        System.out.println("You're deleting file named
:"+fileName);

        Path path =
FileSystems.getDefault().getPath(Directory.name+fileName)
.toAbsolutePath();
        File file = path.toFile();

        if(file.delete()) {
            System.out.println("Deleted File:
"+file.getName());
            dir.GetFiles().remove(file);
        }
        else
        {
            System.out.println("Failed to delete the
file: "+fileName+", file Not Found");
        }
    }

    public void SearchFile() {
        Boolean found = false;

```

```
        System.out.println("Please enter the filename  
search");
```

```
        String fileName = this.getInputString();  
        System.out.println("Youre searching file named  
:"+fileName);
```

```
        ArrayList<File> files = dir.GetFiles();
```

```
        for(int i=0;i<files.size();i++) {
```

```
            if(files.get(i).getName().equals(fileName)) {  
                System.out.println("File Found  
:"+fileName);
```

```
                found = true;
```

```
            }
```

```
        }
```

```
        if(found==false)
```

```
            System.out.println("File Does Not  
Exist.");  
        }
```

```
private String getInputString() {
```

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

```
    return(sc.nextLine());
```

```
}
```

```
private int getOption() {
```

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

```
    int returnOption = 0;
```

```
    try {
```

```
        returnOption = sc.nextInt();
```

```
        }  
        catch (InputMismatchException e) {}  
        return returnOption;  
    }  
  
}
```

Directory.java

```
package Entities;

import java.io.*;
import java.nio.file.FileSystems;
import java.nio.file.Path;
import java.util.*;

public class Directory {
    public static final String name =
"directory/files/";

    private ArrayList<File> files = new
ArrayList<File>();

    Path path =
FileSystems.getDefault().getPath(name).toAbsolutePath();

    File Dfiles = path.toFile();

    public String getName() {
        return name;
    }

    public void print() {
        System.out.println("Existing Files:");
        files.forEach(f -> System.out.println(f));
    }

    public ArrayList<File> fillFiles(){
        File[] directoryFiles = Dfiles.listFiles();

        files.clear();
        for(int i=0;i<directoryFiles.length;i++) {
```

```
        if(directoryFiles[i].isFile()) {
            files.add(directoryFiles[i]);
        }
    }
    return files;
}

public ArrayList<File> getFiles(){
    fillFiles();
    return files;
}
}
```

DirectoryService.java

```
package Services;

import java.io.File;

import Entities.Directory;

public class DirectoryService {
    private static Directory fileDirectory = new
Directory();

    public static void PrintFiles() {
        fileDirectory.fillFiles();

        for(File file :
DirectoryService.getFileDirectory().getFiles()) {
            System.out.println(file.getName());
        }
    }

    public static Directory getFileDirectory() {
        return fileDirectory;
    }

    public static void setFileDirectory(Directory
fileDirectory) {
        DirectoryService.fileDirectory = fileDirectory;
    }
}
```


ScreenService.java

```
package Services;

import java.io.File;

import Entities.Directory;

public class DirectoryService {
    private static Directory fileDirectory = new
Directory();

    public static void PrintFiles() {
        fileDirectory.fillFiles();

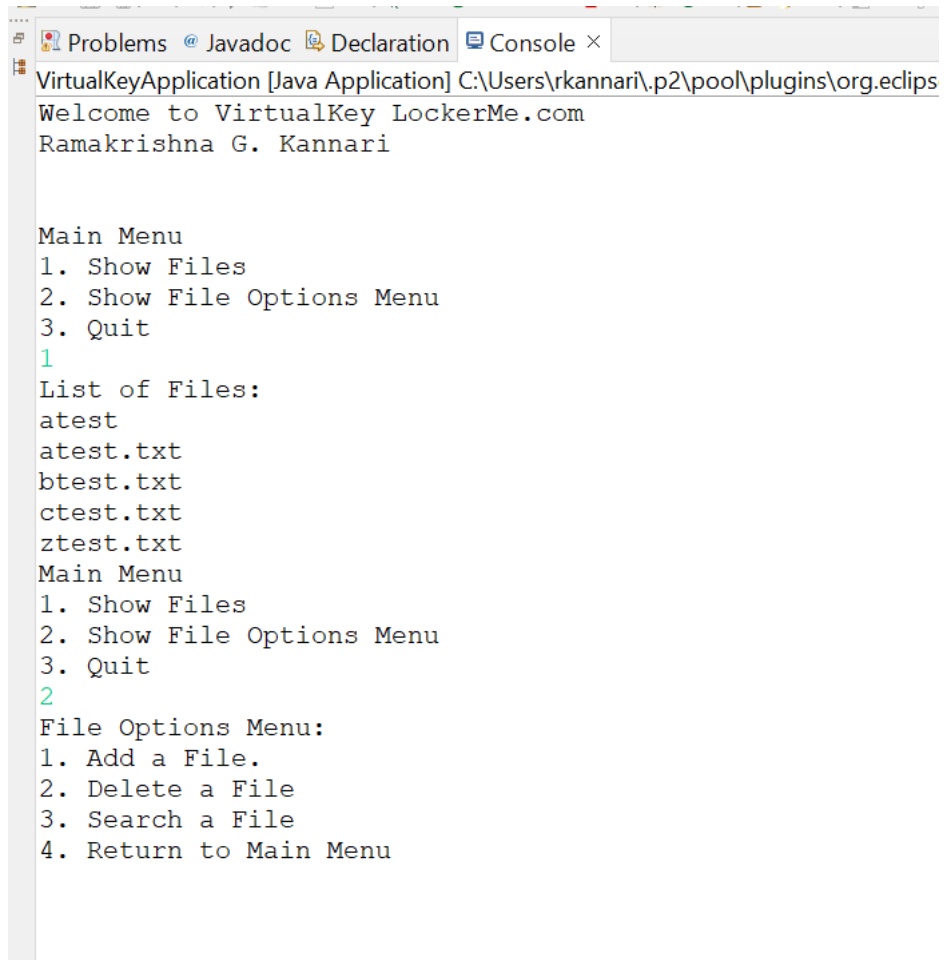
        for(File file :
DirectoryService.getFileDirectory().getFiles()) {
            System.out.println(file.getName());
        }
    }

    public static Directory getFileDirectory() {
        return fileDirectory;
    }

    public static void setFileDirectory(Directory
fileDirectory) {
        DirectoryService.fileDirectory = fileDirectory;
    }
}
```

Output:

1. Showing Main Menu and Secondary Menu and Showing files in sorted order.



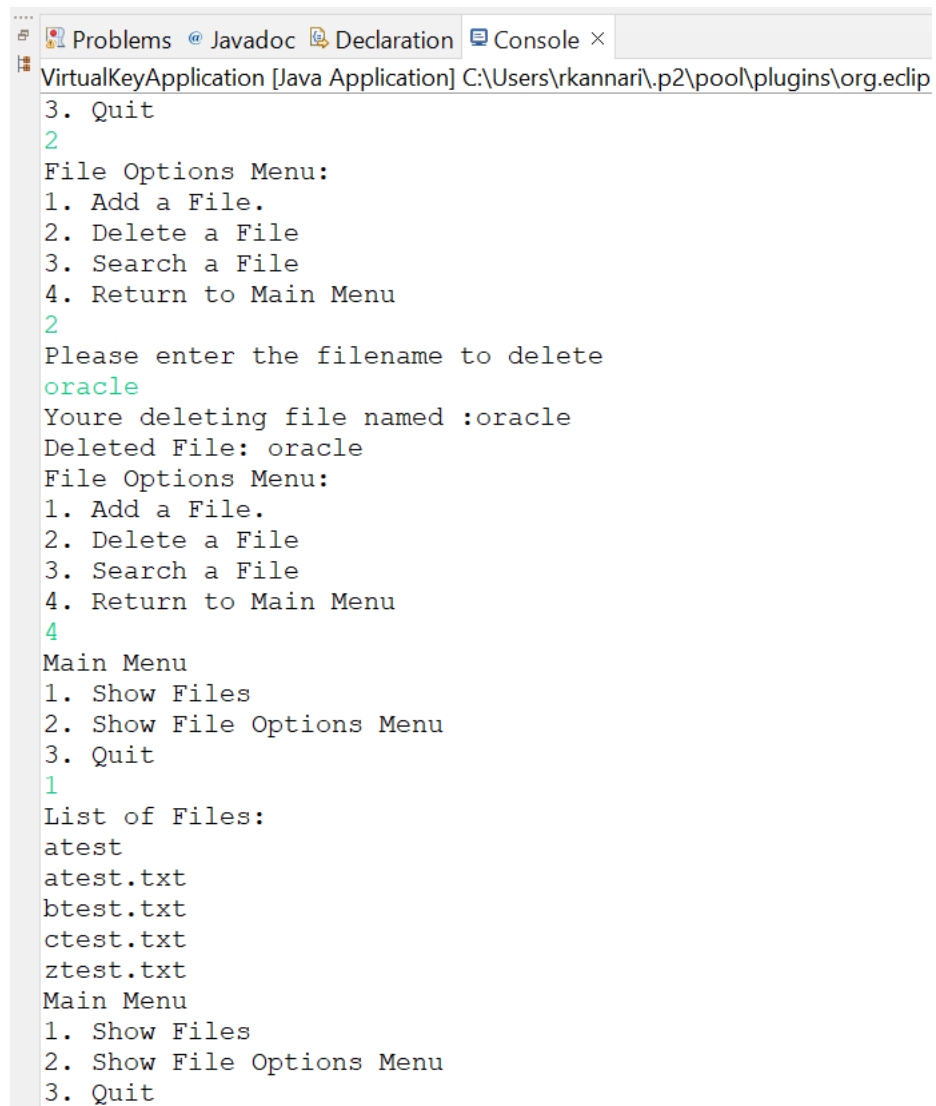
```
VirtualKeyApplication [Java Application] C:\Users\rkannari\.p2\pool\plugins\org.eclipse...
Welcome to VirtualKey LockerMe.com
Ramakrishna G. Kannari

Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
1
List of Files:
atest
atest.txt
btest.txt
ctest.txt
ztest.txt
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
2
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
```

2. Adding New File

```
VirtualKeyApplication [Java Application] C:\Users\rkannari\p2\pool\plugins\org.eclipse.justj.openjdk.hot
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
2
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
1
Please enter the filename to create:
oracle
You're adding file named: oracle
File created: oracle
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
4
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
1
List of Files:
atest
atest.txt
btest.txt
ctest.txt
oracle
ztest.txt
```

3. Deleting File



```
VirtualKeyApplication [Java Application] C:\Users\rkannari\p2\pool\plugins\org.eclipse
3. Quit
2
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
2
Please enter the filename to delete
oracle
You're deleting file named :oracle
Deleted File: oracle
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
4
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
1
List of Files:
atest
atest.txt
btest.txt
ctest.txt
ztest.txt
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
```

4. Searching a File

```
Problems @ Javadoc Declaration Console ×
VirtualKeyApplication [Java Application] C:\Users\rkannari\p2\pool\plugins\org.ed
4. Return to Main Menu
4
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
1
List of Files:
atest
atest.txt
btest.txt
ctest.txt
ztest.txt
Main Menu
1. Show Files
2. Show File Options Menu
3. Quit
2
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
3
Please enter the filename search
atest
You're searching file named :atest
File Found :atest
File Options Menu:
1. Add a File.
2. Delete a File
3. Search a File
4. Return to Main Menu
```

5. Quit Application

Main Menu

1. Show Files
2. Show File Options Menu
3. Quit

3

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