Application.java

```java
import java.io.IOException;
import java.util.Scanner;

public class Application {

    public static void main(String[] args) throws IOException, InterruptedException {
        // TODO Auto-generated method stub
        System.out.println("LOCKEDME.COM");
        System.out.println("Phase 1:Implement Object Oriented Programming Using JAVA With Data Structures And Beyond");
        System.out.println("Application Name:Virtual Key For Your Repositories");
        System.out.println("Developer:Sharwari Nemane");
        appMenu();


    }

    public static void appMenu() throws IOException, InterruptedException
    {
        Scanner scanMenu=new Scanner(System.in);
        String menuChoice;
        while(true)
        {
            System.out.println("_____");
            System.out.println("*Application Menu*");
            System.out.println("1.Retrieve file names in ascending order.");
            System.out.println("2.Business level operations(add/write/read/delete/search).");
            System.out.println("3.Close the application.");
            System.out.println("Enter your choice:");
            menuChoice=scanMenu.nextLine();
            System.out.println("_____");

            switch(menuChoice)
            {
                case "1":getAllFiles();
                    break;
                case "2":fileOperations();
                    break;
                case "3":System.out.println("Closing the application...");
                    scanMenu.close();
                    return;
                default:System.out.println("Enter valid choice.");
                    break;
```

```java
        }
    }
}

public static void getAllFiles()
{
    System.out.println("*Retrieve file names in ascending order*");
    FileOperations fo=new FileOperations();
    fo.getAllFiles();
}

public static void fileOperations() throws IOException, InterruptedException
{
    Scanner scanFO=new Scanner(System.in);
    String fOChoice;
    while(true)
    {
        System.out.println("*Business level operations*");
        System.out.println("1.Add a File.");
        System.out.println("2.Write in a File.");
        System.out.println("3.Read from a File.");
        System.out.println("4.Delete a File.");
        System.out.println("5.Search a File.");
        System.out.println("6.Return to Application Menu.");
        System.out.println("Enter your choice:");
        fOChoice=scanFO.nextLine();
        switch(fOChoice)
        {
            case "1":System.out.println("*Add a File*");
                FileOperations add=new FileOperations();
                add.addNewFile();
                break;
            case "2":System.out.println("*Write in a File*");
                FileOperations write=new FileOperations();
                write.writeInFile();
                break;
            case "3":System.out.println("*Read from a File*");
                FileOperations read=new FileOperations();
                read.readFromFile();
                break;
            case "4":System.out.println("*Delete a File*");
                FileOperations del=new FileOperations();
                del.deleteFile();
                break;
            case "5":System.out.println("*Search a File*");
                FileOperations sear=new FileOperations();
                sear.searchFile();
                break;
```

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                case "6":System.out.println("Returning to Application Menu...");
                    scanFO.close();
                    return;
                default:System.out.println("Enter valid choice.");
                    break;
            }
        }
    }
}
```

FileOperations.java

```java
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Scanner;

public class FileOperations
{
    public void getAllFiles()
    {
        Scanner scanFile=new Scanner(System.in);
        System.out.println("Enter path of Directory:");
        String dirPath=scanFile.nextLine();
        File dir=new File(dirPath);
        if(!dir.exists())
        {
            System.out.println("No such Directory exists!");
            scanFile.close();
            return;
        }
        else
        {   File[] filesList=dir.listFiles();
            if(filesList.length!=0)
            {
                System.out.println("Files present in path:"+dirPath);
                for(int i=0;i<filesList.length;i++)
                    System.out.println(filesList[i].getName());
            }
            else
            {
                System.out.println("No Files present in path:"+dirPath);
            }
        }
        scanFile.close();
```

```java
    }

    public void addNewFile() throws IOException
    {
        Scanner scanAdd=new Scanner(System.in);
        System.out.println("Enter the path where you want to create new File:"
);
        String dirPath=scanAdd.nextLine();
        File dir=new File(dirPath);
        if(!dir.exists())
        {
            System.out.println("No such Directory exists!");
            scanAdd.close();
            return;
        }
        else
        {
            System.out.println("Enter File Name to be created:");
            String fileName=scanAdd.nextLine();
            File file=new File(dirPath,fileName);
            if(file.createNewFile())
            {
                System.out.println("New File has been created");
            }
            else
            {
                System.out.println("Could not create new file");
            }
        }
        scanAdd.close();
    }

    public void writeInFile() throws IOException, InterruptedException
    {
        Scanner scanWrite=new Scanner(System.in);
        System.out.println("Enter the path from where you want to write in a F
ile:");
        String dirPath=scanWrite.nextLine();
        File dir=new File(dirPath);
        if(!dir.exists())
        {
            System.out.println("No such Directory exists!");
            scanWrite.close();
            return;
        }
        else
        {
            System.out.println("Enter name of File to write in:");
```

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                String fileName=scanWrite.nextLine();
                File file=new File(dirPath,fileName);
                if(file.exists())
                {
                    FileWriter fw=new FileWriter(file,true);
                    System.out.println("Enter contents to write in File:");
                    String writeString=scanWrite.nextLine();
                    PrintWriter pw=new PrintWriter(fw);
                    pw.println(writeString);
                    pw.close();
                    System.out.println("Successfully written.");
                }
                else
                {
                    System.out.println("No such File exists!");
                }
            }
            scanWrite.close();
    }

    public void readFromFile() throws IOException
    {
        Scanner scanRead=new Scanner(System.in);
        System.out.println("Enter the path from where you want to read from a
File:");
        String dirPath=scanRead.nextLine();
        File dir=new File(dirPath);
        if(!dir.exists())
        {
            System.out.println("No such Directory exists!");
            scanRead.close();
            return;
        }
        else
        {
            System.out.println("Enter name of File to read from:");
            String fileName=scanRead.nextLine();
            File file=new File(dirPath,fileName);
            if(file.exists())
            {
                System.out.println("File contains:");
                int ch;
                FileReader fr=new FileReader(file);
                while((ch=fr.read())!=-1)
                {
                    System.out.print((char)ch);
                }
                fr.close();
```

```java
                System.out.println();
            }
            else
            {
                System.out.println("No such File exists!");
            }
        }
        scanRead.close();
    }

    public void deleteFile()
    {
        Scanner scanDel=new Scanner(System.in);
        System.out.println("Enter the path from where you want to delete a Fil
e:");
        String dirPath=scanDel.nextLine();
        File dir=new File(dirPath);
        if(!dir.exists())
        {
            System.out.println("No such Directory exists!");
            scanDel.close();
            return;
        }
        else
        {
            System.out.println("Enter name of File to be deleted:");
            String fileName=scanDel.nextLine();
            File file=new File(dirPath,fileName);
            if(file.exists())
            {
                if(file.delete())
                {
                    System.out.println("File has been deleted");
                }
                else
                {
                    System.out.println("Could not delete file");
                }
            }
            else
            {
                System.out.println("No such File exists!");
            }
        }
        scanDel.close();
    }

    public void searchFile()
```

```java
{
    Scanner scanSear=new Scanner(System.in);
    System.out.println("Enter path of Directory:");
    String dirPath=scanSear.nextLine();
    File dir=new File(dirPath);
    if(!dir.exists())
    {
        System.out.println("No such Directory exists!");
        scanSear.close();
        return;
    }
    else
    {
        File[] filesList=dir.listFiles();
        if(filesList.length!=0)
        {
            System.out.println("Enter name of File to search:");
            String fileName=scanSear.nextLine();
            for(int i=0;i<filesList.length;i++)
            {
                if(filesList[i].getName().equals(fileName))
                {
                    System.out.println("File found at given path!");
                    scanSear.close();
                    return;
                }
            }
            System.out.println("No such File found");
        }
        else
            System.out.println("No Files present in path:"+dirPath);
    }
    scanSear.close();
}
}
```