1.File Handle.java

```
package com.simplilear.workspace;

import java.io.File;

import java.io.FileNotFoundException;

import java.io.FileOutputStream;

import java.io.FilenameFilter;

import java.io.IOException;

import java.nio.file.DirectoryStream.Filter;

import java.nio.file.Files;

import java.nio.file.Path;

import java.nio.file.Paths;

import java.util.ArrayList;

import java.util.Arrays;

import java.util.Collection;

import java.util.Collections;

import java.util.List;

import java.util.Scanner;

import java.util.stream.Collectors;

import java.util.stream.IntStream;


public class FileHandle

{

	//code for search the file in the folder

	public static void searchFile(String path, String fileName, List<String> fileListNames)

	{

		File dir = new File("/Users/saperam/Documents/java code/");
```

```
        File[] files = dir.listFiles();
        List<File> filesList = Arrays.asList(files);

        if (files != null && files.length > 0)
        {
            for (File file : filesList)
            {

                if (file.getName().startsWith(fileName))
                {
                    fileListNames.add(file.getAbsolutePath());

                }

// Need to search in directories separately to ensure all files of required
                // fileName are searched
                if (file.isDirectory())
                {
                    searchFile(file.getAbsolutePath(), fileName, fileListNames);

                }

            }

        }
}
```

```
//code for Add file in the folder
        public static void addFile(String fileToAdd,Scanner sc) throws InvalidFileException
        {
                Path pathToFile = Paths.get("/Users/saperam/Documents/java code/" +fileToAdd);

                try
                {

                        Files.createDirectories(pathToFile.getParent());
                        Files.createFile(pathToFile);

                                System.out.println(fileToAdd + " created successfully")
                }
                catch (IOException  e)
                {

                        System.err.println("File Already present \n"+e.getMessage());
                }

        }

        //code for sort the file in Ascending order
        public static void openFile(String sname)
        {
                try
                {
                        // path of the folder
```

```
            File fdir = new File("/Users/saperam/Documents/java code/"); //path
            if(fdir.isDirectory())
            {
                List listFile = Arrays.asList(fdir.list());
                Collections.sort(listFile);   //sort
                System.out.println("File Name Sorted In Ascending Order");
                for(Object name : listFile)
                {
                    System.out.println(name);
                }
            }
            else
            {
                System.out.println(fdir.getName() +" No Such File Found!----");
            }
        }
        catch (Exception e)
        {
            e.printStackTrace();
        }
        finally
        {
            System.out.println("\n Inside the Virtual Key Folder");
        }

}
```

```
	//code for display the file
	public static List<String> display(String fileName, String path)
	{
		List<String> fileListNames = new ArrayList<>();
		FileHandle.searchFile(path, fileName, fileListNames);

		if (fileListNames.isEmpty())
		{

			System.out.println("\n Unsuccessful Operation \n------File Not find with the given file name \"" + fileName + "\" ------\n\n");  //file not found
		}
		else
		{
			System.out.println("\n Successful Operation \nFound file at below location(s):");

			List<String> files = IntStream.range(0, fileListNames.size())
					.mapToObj(index -> (index + 1) + ": " + fileListNames.get(index)).collect(Collectors.toList());

			files.forEach(System.out::println);
		}

		return fileListNames;
	}
```

```
// Code for delete the file
	public static void deleteFile(String fileToDelete,Scanner sc) throws InvalidFileException
	{



		File f= new File("/Users/saperam/Documents/java code/"+fileToDelete);		//file to be delete
		if(f.delete())			//returns Boolean value
		{
			System.out.println(f.getName() + " Sucessfully Deleted");   //getting and printing the file name
		}
		else
		{
				throw new InvalidFileException("File Not Found");
		}


	}
	public void Endisplay()
	{
		// TODO Auto-generated method stub


	}
}
```

2. Virtuallkey.java

```
package com.simplilear.workspace;


import java.io.IOException;

import java.util.List;

import java.util.Scanner;


public class VirtualKey

{

	public static void main(String[] args) throws IOException

	{

		boolean running = true;


		Scanner sc = new Scanner(System.in);


		//object of the class FileHandle

		FileHandle fh = new FileHandle();


		char ch=0;


		do

		{

			System.out.println("Application name: ProtoType");

			System.out.println("Developer name: Sailaja peram");

			System.out.println("Developer email: saperam@cisco.com");

			System.out.println("\n==== Select Option ====");
```

```
System.out.println("1. openFile");
System.out.println("2. addFile");
System.out.println("3. deleteFile");
System.out.println("4. searchFile");
System.out.println("5. Exit");
System.out.println();
int choice = sc.nextInt();
switch(choice)
{
case 1:
        //open file
        System.out.println("=============");
        fh.openFile(null);
        break;
case 2:
        //Add the file
        System.out.println("Enter the File Name: ");
        try
        {
                String fileToAdd = sc.next();
                fh.addFile(fileToAdd, sc);
        }
        catch (Exception e)
        {
                System.out.println(e.getMessage());
        }
        break;
```

```
                    case 3:
                        //Delete the file
                        System.out.println("Enter the file name to Delete from the \"Virtual
Key\"folder: ");
                        try
                        {
                            String fileToDelete = sc.next();
                            fh.deleteFile(fileToDelete, sc);
                        }
                        catch (InvalidFileException e)
                        {
                            System.out.println(e.getMessage());
                        }
                        break;
                    case 4:
                        //Search the file
                System.out.println("Enter the file name to search from the \"virtual key\" folder: ");
                        try
                        {
                            String fileName = sc.next();

                            FileHandle.openFile("/Users/saperam/Documents/java code/");
                            FileHandle.display(fileName, "/Users/saperam/Documents/java
code/");
                        }
                        catch (Exception e)
                        {
                            // TODO: handle exception
```

```
                    }
                        break;

                case 5:
                    //Exit the program
                    System.out.println("-------Thank You! -------: ");
                    running = false;
                    sc.close();
                    System.exit(0); //using exit method to exit the program
                default :
                    System.out.println("---Please Enter the Valid Number!!---- \n");
                    break;
                }
                fh.Endisplay();
        System.out.println("\nDo you want to continue (Type y or n) \n");
        ch = sc.next().charAt(0);
                     }
          while (ch == 'Y'|| ch == 'y');
                {
                    if(running == true);
                }

          }
}
class InvalidFileException extends Exception
{
           public InvalidFileException(String s)
```

```
        {
                super(s);
        }
}
```