import java.util.Scanner;

import java.util.ArrayList;

import java.util.Arrays;

import java.util.Collections;

import java.io.File;

import java.io.IOException;

public class LockedMe {

    public static void main(String[] args) {

        //Welcome message starts here

        System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n");

        System.out.println("\t\t     \"Lockers Pvt. Ltd.\" \t");

        System.out.println("\t \"Welcome to the LockedMe.com application\" \t\n");

        System.out.println("\t This application provides you the following features");

        System.out.println("\t 1. To view all existing files & directories in ascending order");

        System.out.println("\t 2. To perform following file manipulation operations on this directory");

        System.out.println("\t    -> Create a new file in this directory that you want to create");

        System.out.println("\t    -> Delete a file that you want to be deleted from here");

        System.out.println("\t    -> Search a file you want to search for in the directory");

        System.out.println("\t 3. Close the application whenever you want!!");

        System.out.println("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n");

        //Welcome message ends here

        Scanner sc= new Scanner(System.in);

        File folder= new File("New Files");

        folder.mkdir(); //Making the directory New Files to store the files

        while(true){

            System.out.println("\t    \*\*Main Menu\*\*");

            System.out.println("Select from any of the following options:\n");

            System.out.println("1. To view all the files in the directory in ascending order");

            System.out.println("2. To perform new file creation, existing file deletion or search for a file in the directory");

            System.out.println("3. To close and exit the application\n");

            String op= sc.next().trim();

            //To view files in ascending order

            if(op.equals("1")){

                String filesep= System.getProperty("file.separator");

                File flist=new File(folder,filesep);

                ArrayList<String> filenames= new ArrayList<String>(Arrays.asList(flist.list()));

                if(filenames.isEmpty()){

                    System.out.println("The directory is empty\n");

                }

                else{

                    Collections.sort(filenames);

                    System.out.println("The files present in the directory are: ");

                    for(String name: filenames){

                        System.out.println(name);

                    }

                    System.out.println();

                }

                continue;

            }

            //To perform file manipulations

            else if(op.equals("2")){

                fileManipulation(folder);

                continue;

            }

            //To close the application

            else if(op.equals("3")){

                System.out.println("\nThank you for using LockedMe application. Have a nice day!!\n");

                System.exit(0);

            }

            //For invalid options

            else{

                System.out.println("\nThe option you entered is invalid!! Please enter a valid option\n");

                continue;

            }

        }

    }

    //End of main method() and start of operation methods

    static void fileManipulation(File folder){

        while(true){

            //Displaying options for file operations

            System.out.println("\t \*\*File Operations menu\*\*");

            System.out.println("Select the operation you want to perform:\n");

            System.out.println("1. To create and add a new file in the directory");

            System.out.println("2. To delete a file from the directory");

            System.out.println("3. To search for a particular file in the directory");

            System.out.println("4. To go back to the main menu\n");

            Scanner sc= new Scanner(System.in);

            String opr= sc.next().trim();

            //New file creation

            if(opr.equals("1")){

                System.out.println("Enter the name of the file you want to create with extension:");

                sc.nextLine();

                String file= sc.nextLine();

                File addfile= new File(folder, file);

                try {

                    if(addfile.createNewFile())

                        System.out.println("The file "+file+" is successfully added to the directory\n");

                    else

                        System.out.println("The given file "+file+" already exists in the directory\n");

                }

                catch (IOException e) {

                    System.out.println("Sorry!! The file creation operation of "+file+" was unsuccessful.\n");

                }

                continue;

            }

            //Deleting file from directory

            else if(opr.equals("2")){

                System.out.println("Enter the name of the file you want to delete:");

                sc.nextLine();

                String fname= sc.nextLine();

                File delfile= new File(folder,fname);

                if(delfile.exists()) {

                    if(delfile.delete()) {

                        System.out.println("The file "+fname+" was deleted successfully from the directory\n");

                    }

                    else{

                        System.out.println("The file deletion "+fname+" failed\n");

                    }

                }

                else{

                    System.out.println("The specified file "+fname+" was not found in the directory to get deleted\n");

                }

                continue;

            }

            //Searching file in directory

            else if(opr.equals("3")){

                System.out.println("Enter the file name you want to search:");

                sc.nextLine();

                String sfile= sc.nextLine();

                File searchfile= new File(folder, sfile);

                if(searchfile.exists()) {

                    System.out.println("The file "+sfile+" is present in the directory\n");

                }

                else{

                    System.out.println("The file "+sfile+" is not present in the directory\n");

                }

                continue;

            }

            //Redirect to main Menu

            else if(opr.equals("4")){

                sc.nextLine();

                System.out.println("Redirecting to main menu...\n");

                return;

            }

            //For invalid operation input

            else{

                sc.nextLine();

                System.out.println("\nThe option you entered is invalid!! Enter a valid option\n");

                continue;

            }

        }//End of file manipulation loop

    }//End of fileManipulation() method

}