package com.sl.Assignments.PracticeProject;

import java.io.BufferedReader;

import java.io.BufferedWriter;

import java.io.File;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.util.Scanner;

import java.util.StringTokenizer;

public class EmployeeRecordFileHandling {

public static void main(String[] args) {

Scanner strInput = new Scanner(System.in);

String choice,cont = "y";

while( cont.equalsIgnoreCase("y") ) {

System.out.println("\t\t Employee Information System\n\n");

System.out.println("1 ===> Add New Employee Record ");

System.out.println("2 ===> View All Employee Record ");

System.out.println("3 ===> Delete Employee Record ");

System.out.println("4 ===> Search Specific Record ");

System.out.println("5 ===> Update Specific Record ");

System.out.print("\n\n");

System.out.println("Enter your choice: ");

choice = strInput.nextLine();

if( choice.equals("1") ) {

try {

AddRecord();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

} else if( choice.equals("2") ) {

try {

ViewAllRecord();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

} else if( choice.equals("3") ) {

try {

DeleteRecordByID();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

} else if( choice.equals("4") ) {

try {

SearchRecordbyID();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

} else if( choice.equals("5") ) {

try {

updateRecordbyID();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

System.out.println("Do you want to continue? Y/N");

cont = strInput.nextLine();

}

}

public static void AddRecord() throws IOException {

BufferedWriter bw = new BufferedWriter( new FileWriter("records.txt",true) );

Scanner strInput = new Scanner(System.in);

String ID, name, age, addr;

System.out.print("Enter the Employee ID: ");

ID = strInput.nextLine();

System.out.print("Enter the Employee Name: ");

name = strInput.nextLine();

System.out.print("Enter the Employee Age: ");

age = strInput.nextLine();

System.out.print("Enter the Employee Address: ");

addr = strInput.nextLine();

bw.write(ID+","+name+","+age+","+addr);

bw.flush();

bw.newLine();

bw.close();

}

public static void ViewAllRecord() throws IOException {

BufferedReader br = new BufferedReader( new FileReader("records.txt") );

String record;

System.out.println(" ------------------------------------------------------------- ");

System.out.println("| ID Name Age Address |");

System.out.println(" ------------------------------------------------------------- ");

while( ( record = br.readLine() ) != null ) {

StringTokenizer st = new StringTokenizer(record,",");

System.out.println("| "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" |");

}

System.out.println("| |");

System.out.println(" ------------------------------------------------------------- ");

br.close();

}

public static void DeleteRecordByID() throws IOException {

Scanner strInput = new Scanner(System.in);

String ID, record;

File tempDB = new File("records\_temp.txt");

File db = new File("records.txt");

BufferedReader br = new BufferedReader( new FileReader( db ) );

BufferedWriter bw = new BufferedWriter( new FileWriter( tempDB ) );

System.out.println("\t\t Delete Employee Record\n");

System.out.println("Enter the Employee ID: ");

ID = strInput.nextLine();

while( ( record = br.readLine() ) != null ) {

if( record.contains(ID) )

continue;

bw.write(record);

bw.flush();

bw.newLine();

}

br.close();

bw.close();

db.delete();

tempDB.renameTo(db);

}

public static void SearchRecordbyID() throws IOException {

String ID,record;

Scanner strInput = new Scanner(System.in);

BufferedReader br = new BufferedReader( new FileReader("records.txt") );

System.out.println("\t\t Search Employee Record\n");

System.out.println("Enter the Employee ID: ");

ID = strInput.nextLine();

System.out.println(" ------------------------------------------------------------- ");

System.out.println("| ID Name Age Address |");

System.out.println(" ------------------------------------------------------------- ");

while( ( record = br.readLine() ) != null ) {

StringTokenizer st = new StringTokenizer(record,",");

if( record.contains(ID) ) {

System.out.println("| "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" |");

}

}

System.out.println("| |");

System.out.println(" ------------------------------------------------------------- ");

br.close();

}

public static void updateRecordbyID() throws IOException {

String newName, newAge, newAddr, record, ID,record2;

File db = new File("records.txt");

File tempDB = new File("records\_temp.txt");

BufferedReader br = new BufferedReader( new FileReader(db) );

BufferedWriter bw = new BufferedWriter( new FileWriter(tempDB) );

Scanner strInput = new Scanner(System.in);

System.out.println("\t\t Update Employee Record\n\n");

/\*\*/

System.out.println("Enter the Employee ID: ");

ID = strInput.nextLine();

System.out.println(" ------------------------------------------------------------- ");

System.out.println("| ID Name Age Address |");

System.out.println(" ------------------------------------------------------------- ");

while( ( record = br.readLine() ) != null ) {

StringTokenizer st = new StringTokenizer(record,",");

if( record.contains(ID) ) {

System.out.println("| "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" "+st.nextToken()+" |");

}

}

System.out.println("| |");

System.out.println(" ------------------------------------------------------------- ");

br.close();

/\*\*/

System.out.println("Enter the new Name: ");

newName = strInput.nextLine();

System.out.println("Enter the new Age: ");

newAge = strInput.nextLine();

System.out.println("Enter the new Address: ");

newAddr = strInput.nextLine();

BufferedReader br2 = new BufferedReader( new FileReader(db) );

while( (record2 = br2.readLine() ) != null ) {

if(record2.contains(ID)) {

bw.write(ID+","+newName+","+newAge+","+newAddr);

} else {

bw.write(record2);

}

bw.flush();

bw.newLine();

}

bw.close();

br2.close();

db.delete();

boolean success = tempDB.renameTo(db);

System.out.println(success);

}

}