**TAMOJIT DAS A/7/C1**

**ASSIGNMENT 11**

**Q1.**

CustomNegativeNumberException.java

package Q1;

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\* @author TAMOJIT

\*/

public class CustomNegativeNumberException extends Exception{

double X;

public CustomNegativeNumberException(double x) {

this.X=x;

}

@Override

public String toString() {

return "NegativeNumber "+this.X+" detected."; //To change body of generated methods, choose Tools | Templates.

}

}

CustomFileManager.java

package Q1;

import java.io.\*;

import java.util.logging.Level;

import java.util.logging.Logger;

/\*\*

\*

\* @author TAMOJIT

\*/

public class CustomFileManager {

public static void main(String[] args){

try {

FileReader fr=new FileReader("numbers.txt");

BufferedReader br=new BufferedReader(fr);

while (true){

String s=br.readLine();

if (s==null){

break;

}

double x=Double.parseDouble(s);

if (x<0){

throw new CustomNegativeNumberException(x);

}else{

System.out.println(x);

}

}

} catch (FileNotFoundException ex) {

Logger.getLogger(CustomFileManager.class.getName()).log(Level.SEVERE, null, ex);

} catch (IOException ex) {

Logger.getLogger(CustomFileManager.class.getName()).log(Level.SEVERE, null, ex);

} catch (CustomNegativeNumberException ex) {

Logger.getLogger(CustomFileManager.class.getName()).log(Level.SEVERE, null, ex);

}

}

}

**Q2.**

Fight.java

package Q3;

/\*\*

\*

\* @author TAMOJIT

\*/

public class Flight implements Comparable<Flight>{

private String depCity;

private String daysOfWeek;

private String flightNum;

private String depTime;

private String arrTime;

public Flight(String depCity, String daysOfWeek, String flightNum, String depTime, String arrTime) {

this.depCity = depCity;

this.daysOfWeek = daysOfWeek;

this.flightNum = flightNum;

this.depTime = depTime;

this.arrTime = arrTime;

}

public String getDepCity() {

return depCity;

}

public String getDaysOfWeek() {

return daysOfWeek;

}

public String getFlightNum() {

return flightNum;

}

public String getDepTime() {

return depTime;

}

public String getArrTime() {

return arrTime;

}

@Override

public int compareTo(Flight o) {

return this.flightNum.compareTo(o.getFlightNum()); //To change body of generated methods, choose Tools | Templates.

}

}

FlightManager.java

package Q3;

import java.io.BufferedReader;

import java.io.BufferedWriter;

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.util.ArrayList;

import java.util.Collections;

/\*\*

\*

\* @author TAMOJIT

\*/

public class FlightManager {

static Flight readLine(String line){

String[] row = line.split("\\|");

String[] timings = row[3].split("/");

return new Flight(row[0],row[1],row[2],timings[0],timings[1]);

}

static String writeLine(Flight flight){

String timings = String.join("/",flight.getDepTime(), flight.getArrTime());

String row = String.join("/",flight.getDepCity(), flight.getDaysOfWeek(), flight.getFlightNum(),timings);

return row;

}

static ArrayList<Flight> sortArray(ArrayList<Flight> flights){

Collections.sort(flights);

return flights;

}

public static void main(String[] args) {

ArrayList<Flight> flights = new ArrayList<Flight>();

try {

FileReader fr = new FileReader("2015.silkair.csv");

BufferedReader br = new BufferedReader(fr);

String line = br.readLine();

while(line!=null){

flights.add(readLine(line));

line = br.readLine();

}

br.close();

fr.close();

sortArray(flights);

FileWriter fw = new FileWriter("sorted.2015.silkair.csv");

BufferedWriter bw = new BufferedWriter(fw);

for (Flight flight: flights) {

bw.write(writeLine(flight) + "\n");

}

bw.close();

fw.close();

} catch (FileNotFoundException e) {

System.err.println("File not found");

} catch (IOException e) {

System.err.println(e);

}

}

}