**Dog Handout: Assume all classes are in the dogs package and that all necessary import statements are provided – do NOT add a package statement to this code and do NOT add import statements.**

**public class Dog implements Comparable<Dog> {**

**private String name;**

**private int age;**

**public Dog(String name, int age) {**

**this.name = name;**

**this.age = age;**

**}**

**public int getAge() {**

**return age;**

**}**

**@Override**

**public int compareTo(Dog otherDog) {**

**//MISSING CODE**

**}**

**}**

**-----------------------------------------------------------**

**public class IllegalDogAgeException extends**

**RuntimeException {**

**public IllegalDogAgeException() {**

**}**

**public IllegalDogAgeException(String msg) {**

**super(msg);**

**}**

**}**

**-----------------------------------------------------------**

**public class DogList {**

**private ArrayList<Dog> dogs;**

**public DogList() {**

**dogs = new ArrayList<Dog>();**

**}**

**public void addDog(Dog dog) {**

**// THIS METHOD WILL BE MODIFIED**

**dogs.add(dog);**

**}**

**public void naturalSort() {**

**//MISSING CODE**

**}**

**public void sortByAge() {**

**//MISSING CODE**

**}**

**}**

**------------------------MORE ON BACK-------------------->>>**

**public class DogDriver {**

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

**FileNotFoundException {**

**Scanner myData = new Scanner(new File("dogs.txt"));**

**DogList myDogs = new DogList();**

**String dogName = null;**

**int dogAge = 0;**

**while (myData.hasNext()) {**

**dogName = myData.next();**

**dogAge = myData.nextInt();**

**myDogs.addDog(new Dog(dogName, dogAge));**

**}**

**}**

**}**