20SCS2050 - Quiz 14(4 Points)

1.In a Fossil class that has a instance variable named age that tells how old a fossil is (in thousands of years), how would you compare two Fossil objects a and b? Assume that a is the callee object.

(1 Point)

compareTo(a, b)

a.compareTo(b)

b.compareTo(a)

a < b

2.When a.compareTo(b) is less than zero we would like to position Fossil a before Fossil b in a collection sorted from newer to older fossils. Based on that, how should you implement "int compareTo(Fossil other)"?

(1 Point)

age - other.age

other.age - age

age < other.age

age > other.age

3.If we need to provide a way to compare Virus objects based on their mortality rates, which is the correct way to declare your Virus class in Java?

(1 Point)

class Virus extends Comparable

class Virus extends Comparable<Virus>

class Virus implements Comparable

class Virus implements Comparable<Virus>

4.Assume that the mortality of a Virus object is defined by an instance variable named mortalityRate. Consider two Virus objects: influenza (with mortalityRate = .1) and covid19 (with mortalityRate = 2). If you want influenza.Compareto(covid19) to return a number > 0 so you would position influenza after covid19 in a collection, how should you implement "compareTo(Virus other)"?

(1 Point)

mortalityRate - other.mortalityRate

other.mortalityRate - mortalityRate

mortalityRate < other.mortalityRate

mortalityRate > other.mortalityRate