LAB 06\_Section 15 Bryan Nguyen (Scribe)(Driver)

Part A.

1. Not returning an int but returning a double.

2a. Because there are methods that are supposed to be implemented, but they are not.

2b. It is legal because it is part of the superclass in the interface.

2c. Done.

2d. It’s so the class can not be modified.

2e. It is bad because the University does not have all the properties of the AbstractFiniteSet class.

Part B.

1. We don’t know the content of bank account or there could be different versions of it.

import java.util.Comparator;

public class SillyStringComparator implements Comparator

{

private String x;

private String y;

public SillyStringComparator(String x, String y)

{

this.x = x;

this.y = y;

}

public int compare(String a, String b)

{

if (a.length() == 0 || b.length() == 0)

{

if (a.length() == b.length())

{

return 0;

}

if (a.length() ==0)

{

return -1;

}

else

{

return 1;

}

}

else

{

String aLastChar = a.substring(a.length() - 1, a.length());

String aModified = null;

for (int i = 1; i < a.length(); i++)

{

aModified = aModified + a.substring(i, i + 1);

}

aModified = aModified + aLastChar;

String bLastChar = b.substring(b.length() - 1, b.length());

String bModified = null;

for (int i = 1; i < b.length(); i++)

{

bModified = bModified + a.substring(i, i + 1);

}

bModified = bModified + bLastChar;

return aModified.compareTo(bModified);

}

}

}

C.

public class Test1Q5 {

public static void main(String[] args)

{

String a = "abcdef";

String b = "abracadabra";

System.out.println("Length: " + maxLengthSharedString(a, b));

System.out.println("Expected: 4");

}

public static int maxLengthSharedString(String a, String b)

{

return maxLengthSharedString(a, 0, b, 0);

}

private static int maxLengthSharedString(String a, int aIndex, String b, int bIndex)

{

int count = 0;

if (a.substring(aIndex, aIndex + 1).equals(b.substring(bIndex, bIndex + 1)))

{

count++;

return maxLengthSharedString(a, aIndex, b, bIndex);

}

return 0;

}

}

D.