Recitation 10

Concept 1 – references practice

A 60 second refresher -

Given the following code:

```
String a = “hello”;
String b = “bye”;
String c = a;
String d = c;
String e = “hello”;
```

Will the following comparisons be true or false?

1. a==b
2. d==a
3. c==a
4. c.equals(a)
5. a==e
6. a.equals(e)

Now for some coding questions:

1. Given an int array in the main method, implement the void method “add5” that will add 5 to each element of that array. Use the following main method:

```
public static void main(String[] args){
        int[] x = {1, 2, 3, 4, 5};

        add5(x);

        //x should now be {6, 7, 8, 9, 10}

        for(int j = 0; j < x.length; j ++){
                System.out.println(x[j]);
        }

        add5(x);

        System.out.println();
        //x should now be {11, 12, 13, 14, 15}
        for(int j = 0; j < x.length; j ++){
                System.out.println(x[j]);
        }
}
```

Concept 2 – OOP

OOP stands for Object Oriented Programming

In this exercise, we practice making and using constructors, getters, setters, and fields. You are going to pretend to be a bank with 3 customers. Write the bank account class to represent those customers. Your class should have:

- A constructor that does not take any arguments.
- A constructor that takes a String name
- A constructor that takes String customerName, int accountID, double initialBalance
- Getters for the balance, name, and ID
- Setters for the balance, name, and ID
- deposit and withdraw methods. The withdraw method should not let the customer withdraw more money than what is in their account.
- toString method that prints out the account's name, balance, and id

Complete the following main method (fill in code to do what the comments specify):

```
public static void main(String[] args){
        BankAccount bobs = new BankAccount();
        BankAccount lucys = new BankAccount("Lucy Lue");
        BankAccount johns = new BankAccount("John James", 3, 999.99);

        //use setters to set bobs accountid to 1, bobs
        //balance to 25.50, and bobs name to "Robert Bobert"

        //use setters to set lucys accountid to 2, and lucys balance to 40

        //use the toString method to print out bobs and lucys accounts

        //withdraw 1000 from johns and use the toString method you
        //implemented to print out his account.

        //depost 50 to bobs then withdraw 30 and print out his account info.
}
```