

Copying Reference Values: Aliasing

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```
Person alan = new Person("Alan");
Person mark = new Person("Mark");
Person tom = new Person("Tom");
Person jim = new Person("Jim");
Person[] persons1 = {alan, mark, tom};
Person[] persons2 = new Person[persons1.length];
for(int i = 0; i < persons1.length; i++) {
    persons2[i] = persons1[i]; }
persons1[0].setAge(70);
System.out.println(jim.getAge());
System.out.println(alan.getAge());
System.out.println(persons2[0].getAge());
persons1[0] = jim;
persons1[0].setAge(75);
System.out.println(jim.getAge());
System.out.println(alan.getAge());
System.out.println(persons2[0].getAge());
```

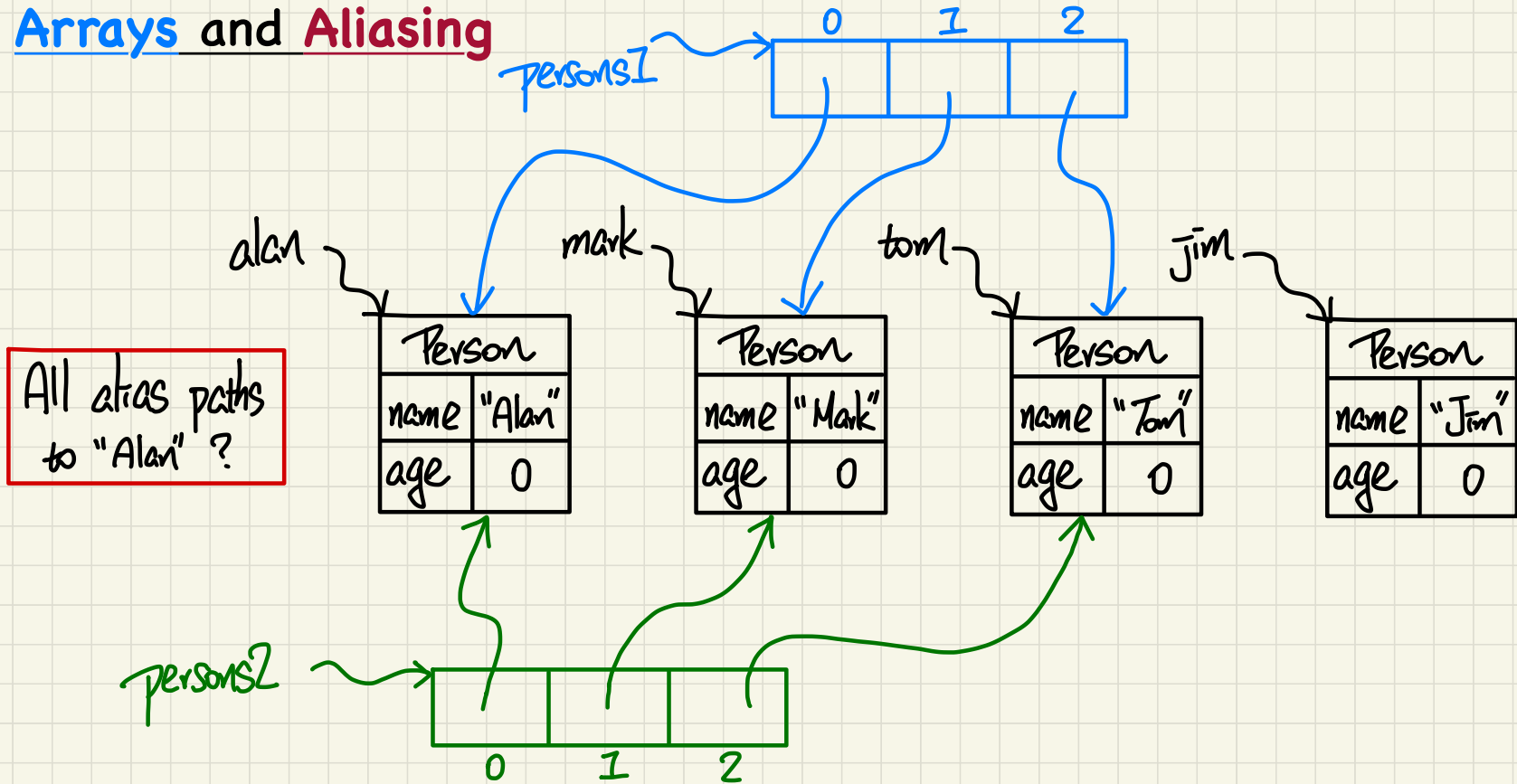
Person	
name	
age	

Person	
name	
age	

Person	
name	
age	

Person	
name	
age	

Arrays and Aliasing



Q. All alias paths to "Alan"?

Managing Account IDs: Manual

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```
public class Account {  
    private int id;  
    private String owner;  
    public int getID() { return this.id; }  
    public Account(int id, String owner) {  
        this.id = id;  
        this.owner = owner;  
    }  
}
```

```
class AccountTester {  
    Account acc1 = new Account(1, "Jim");  
    Account acc2 = new Account(2, "Jeremy");  
    System.out.println(acc1.getID() != acc2.getID());  
}
```

Declaring **Global** Variables among Objects

```
public class Counter {  
    private int l;  
    static int g = 0;  
  
    public Counter() {  
        this.l = 0;  
    }  
  
    public int getLocal() {  
        return this.l;  
    }  
  
    public void incrementLocal() {  
        this.l ++;  
    }  
  
    public void incrementGlobal() {  
        g ++;  
    }  
}
```

```
public class CounterTester {  
    public static void main(String[] args) {  
        Counter c1 = new Counter();  
        Counter c2 = new Counter();  
  
        System.out.println("c1's local: " + c1.getLocal());  
        System.out.println("c2's local: " + c2.getLocal());  
        System.out.println("Global accessed via c1: " + c1.g);  
        System.out.println("Global accessed via c2: " + c2.g);  
        System.out.println("Global accessed via Counter: " + Counter.g);  
  
        c1.incrementLocal();  
  
        c2.incrementLocal();  
  
        c1.incrementGlobal();  
  
        c2.incrementGlobal();  
  
        Counter.g = Counter.g + 1; // Counter.global ++;  
    }  
}
```