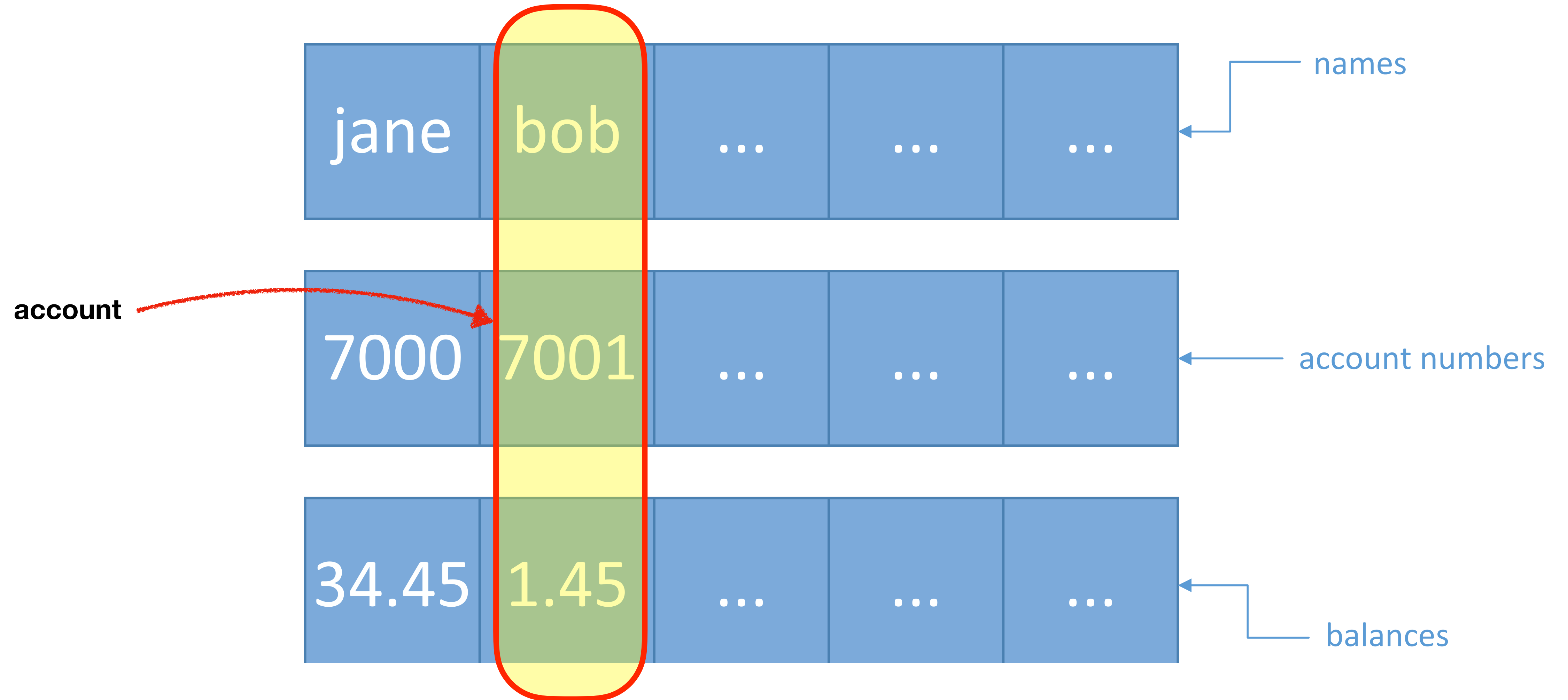


Programming Using Java

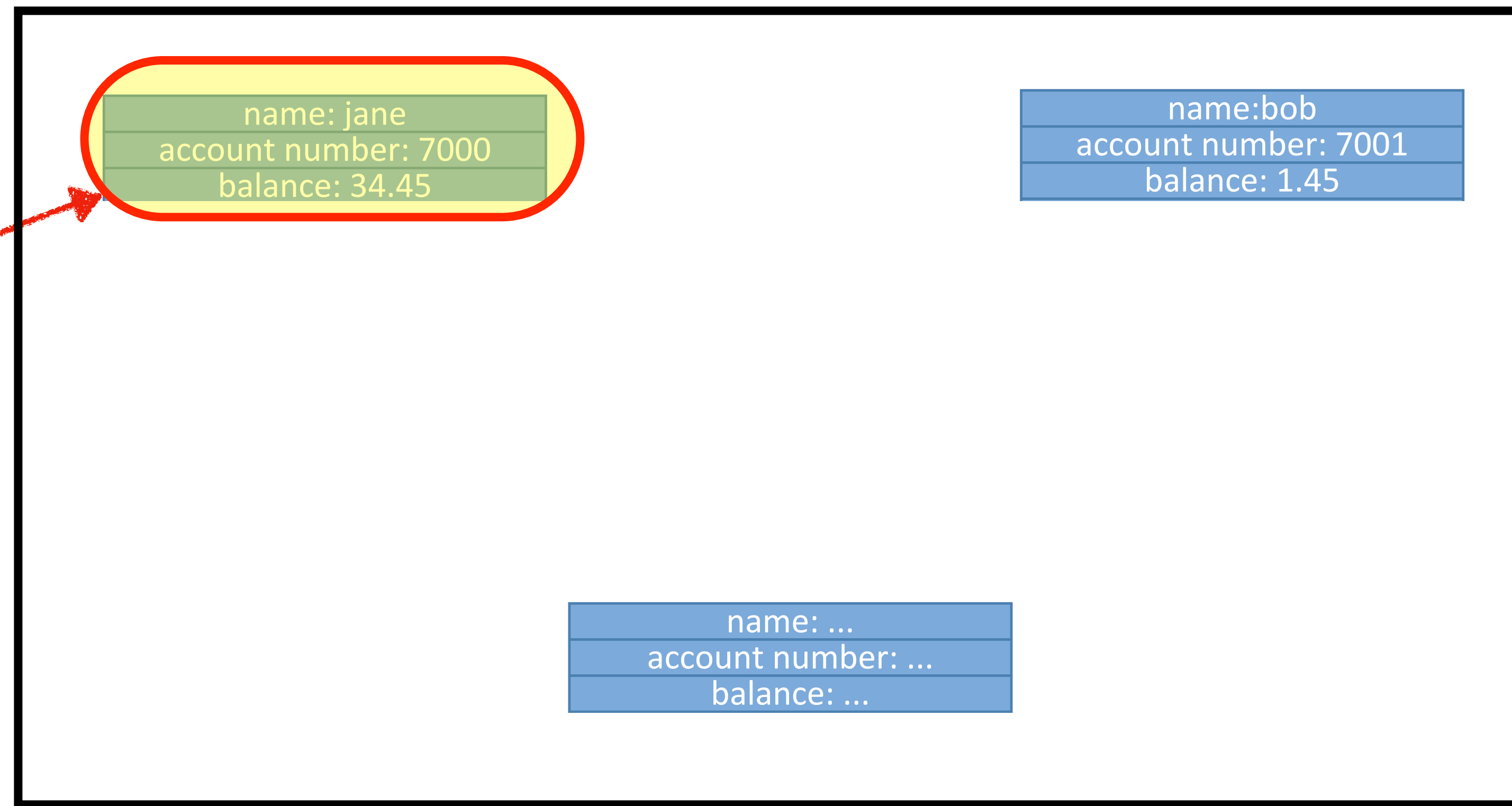
Session 3: Classes



Storing Complex Types

“...involves spanning multiple variables...”

**account
object**



Objects

“...allow you to store complex data types...”

Classes

visibility

```
public class Account {
```

```
    private String accountName;  
    private int accountNumber;  
    private double accountBalance;
```

instance variables

methods

```
    public void setName (String name) {  
        this.name = name;  
    }
```

```
    public String getName () {  
        return name;  
    }
```

```
}
```

```
public class BankApp {  
  
    public static void main(String[] args) {  
  
        double dummy = 0;  
  
        Account firstAccount = new Account();  
        Account secondAccount = new Account();  
        ...  
        System.out.printf("Account holder: %s /n",  
                           secondAccount.getName());  
    }  
}
```

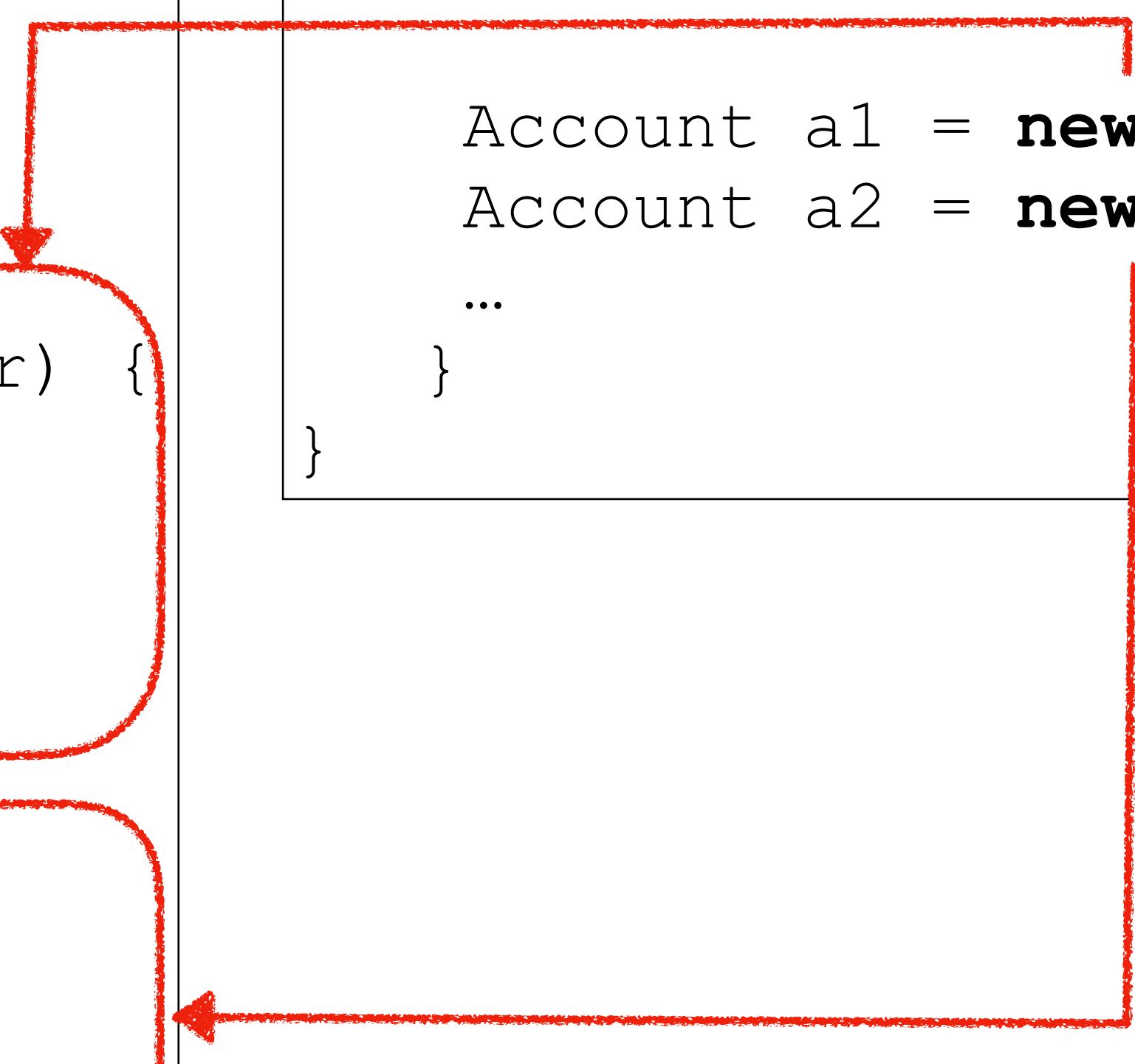
← object creation

← method call

Using Classes

“...programs use class definitions to create objects...”

```
public class Account {  
  
    private String accountName;  
    private int accountNumber;  
    private double accountBalance;  
  
    public Account(String name, int number) {  
        this.accountName = name;  
        this.accountNumber = number;  
        this.accountBalance = 0;  
    }  
  
    public Account() {  
        this.accountName = "joe";  
        this.accountNumber = 70;  
        this.accountBalance = 0;  
    }  
}
```



```
public class BankApp {  
    public static void main(String[] args) {  
  
        Account a1 = new Account("joe", 70);  
        Account a2 = new Account();  
  
        ...  
    }  
}
```

Constructors

“...a special method called upon object creation...”

Classes

visibility

```
public class Account {
```

```
    private String accountName;  
    private int accountNumber;  
    private double accountBalance;
```

instance variables

methods

```
    public void setName(String name) {  
        this.accountName = name;  
    }
```

```
    public String getName () {  
        return accountName;  
    }
```

```
}
```