Using Java Beyond BlueJ

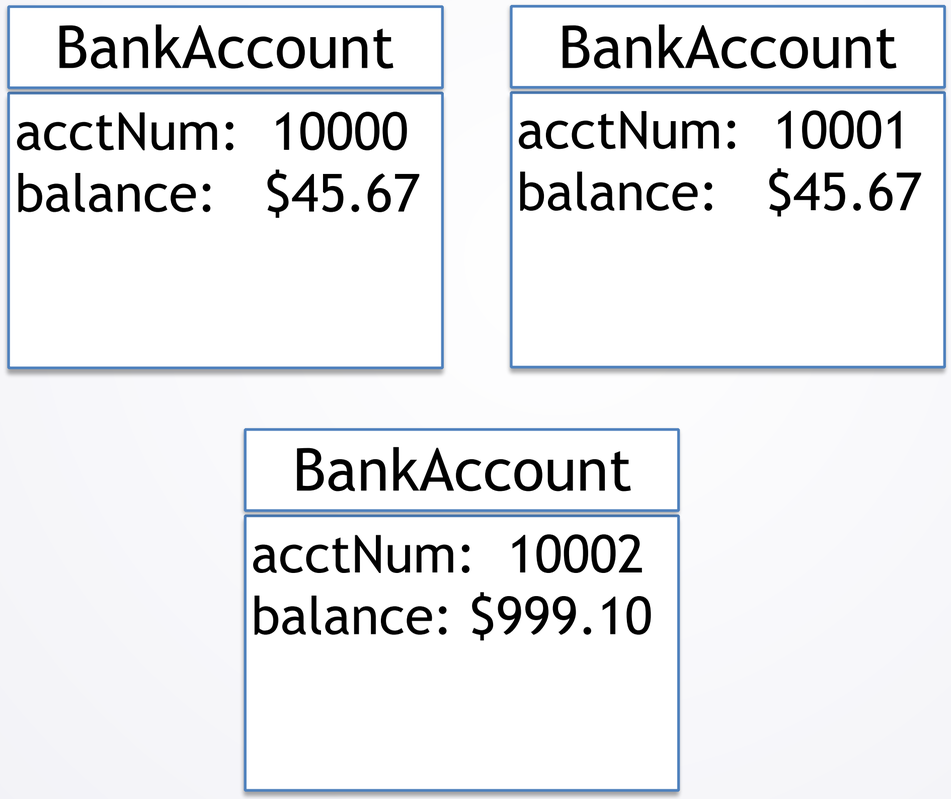
Static

Duke
UNIVERSITY

What Does Static Mean?

- **`main`** is "static," what does that mean?
  - First: non-static (instance) = in each object

```
class BankAccount {
  int acctNum;
  double balance;
…
}
```



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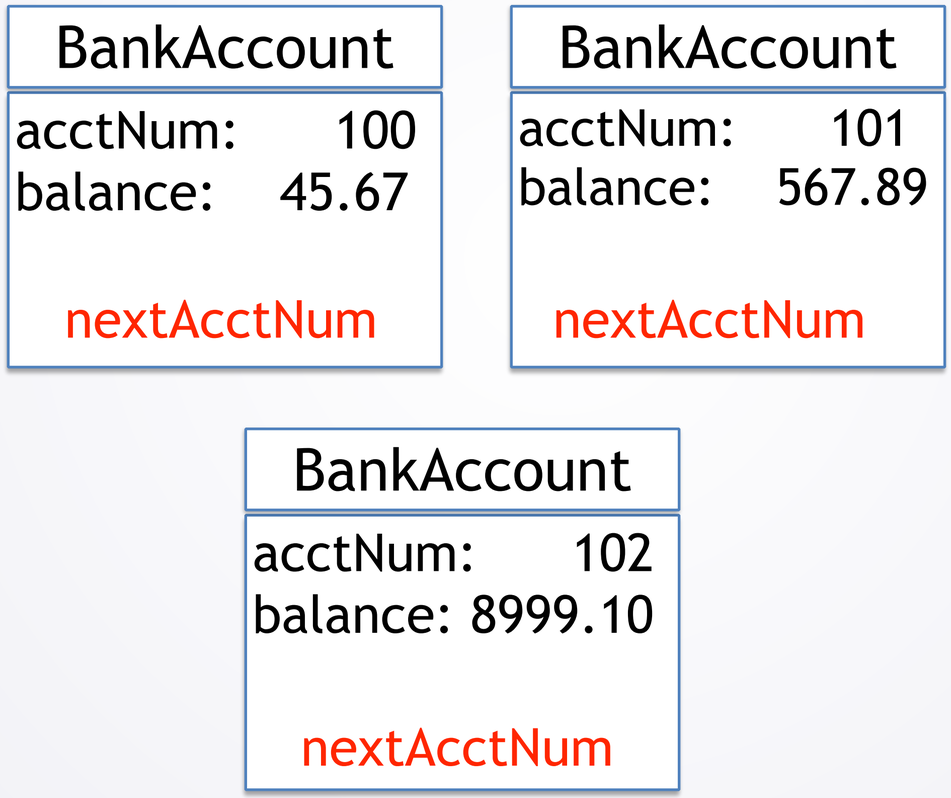

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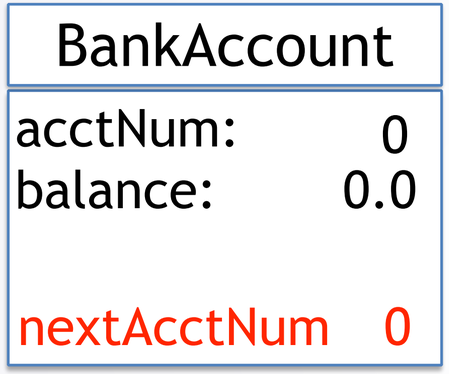

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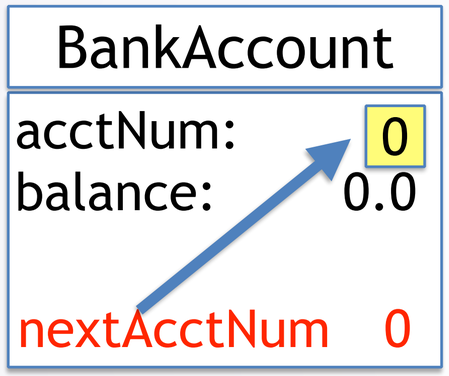

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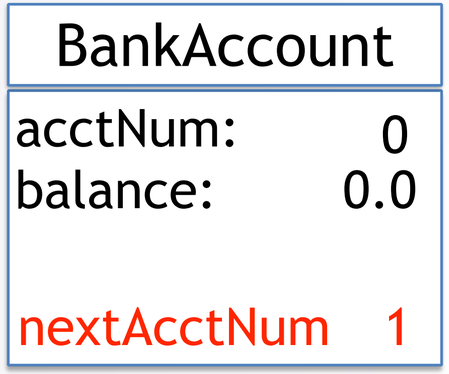

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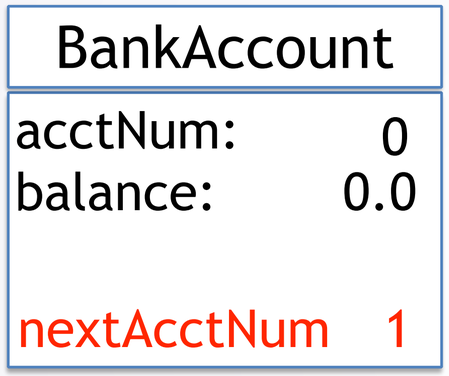

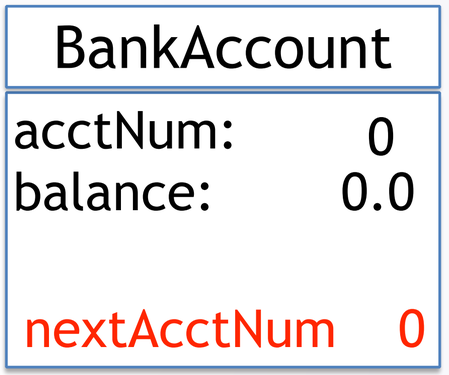

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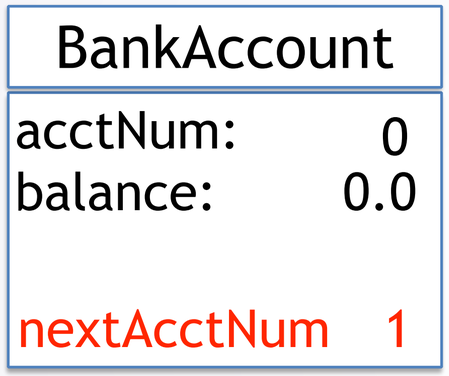

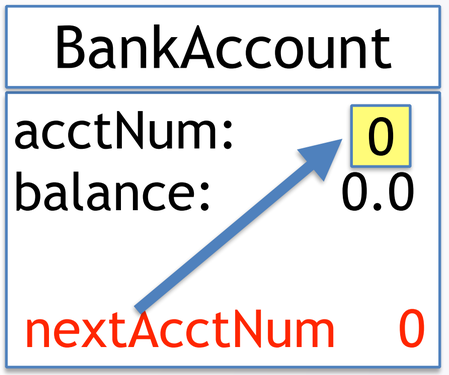

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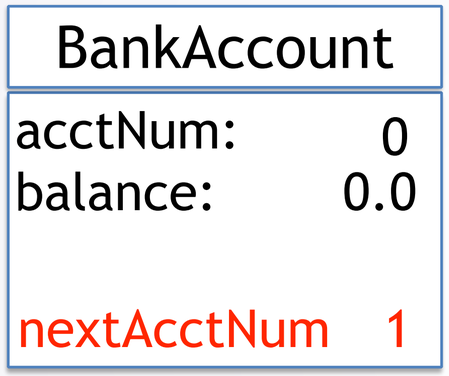

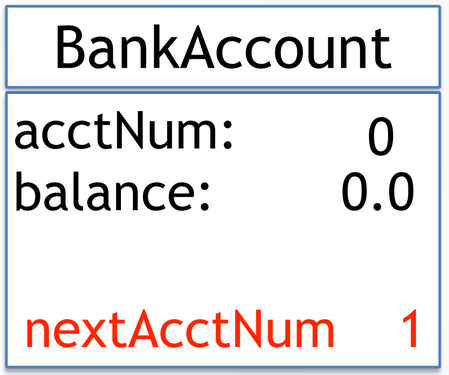

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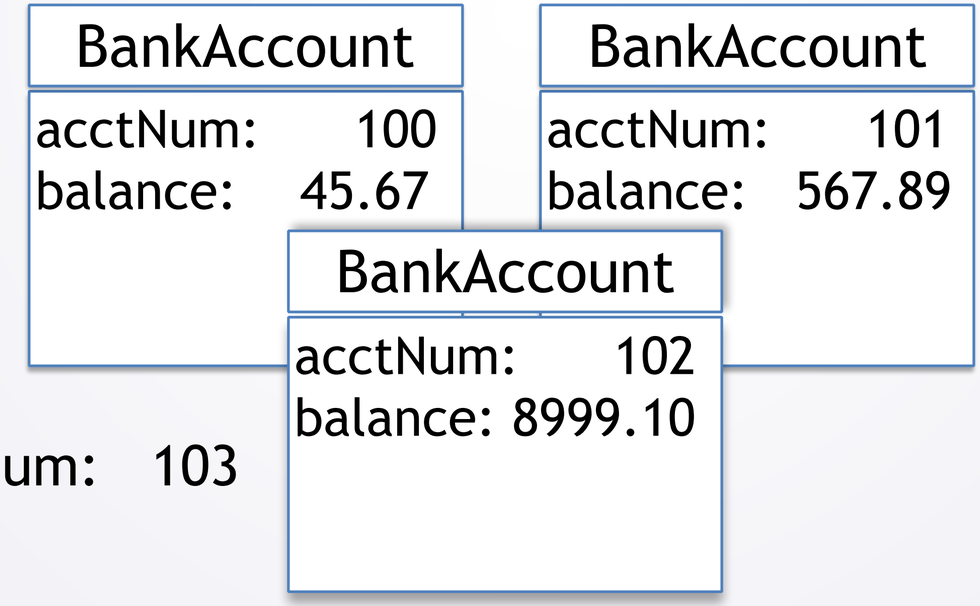
  - First: non-static (instance) = in each object
  - Static: one for the entire class

```
class BankAccount {
  int acctNum;
  double balance;
  static int nextAcctNum;
}
```

BankAccount's nextAcctNum: 103



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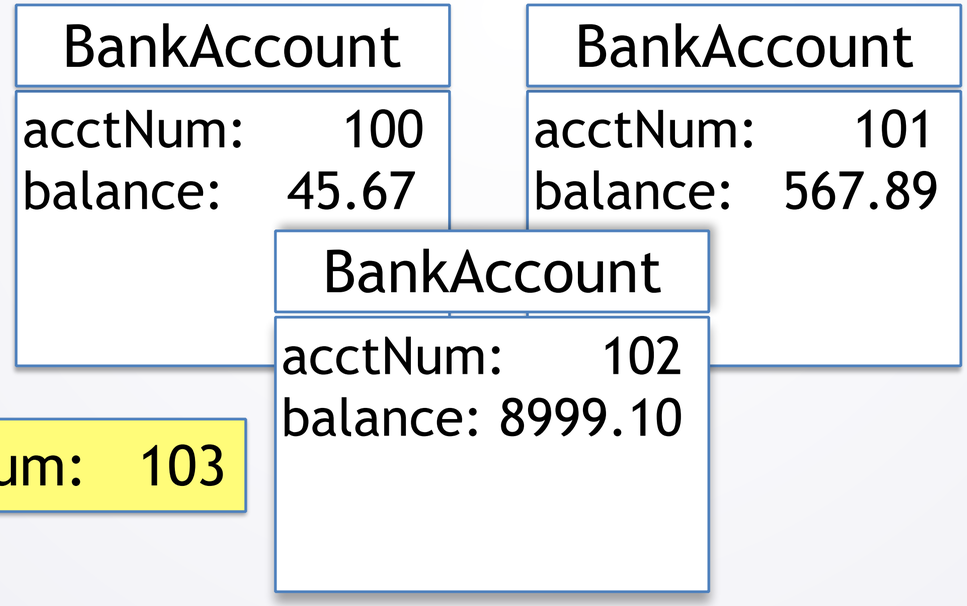

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  - Named: `BankAccount.nextAcctNum`

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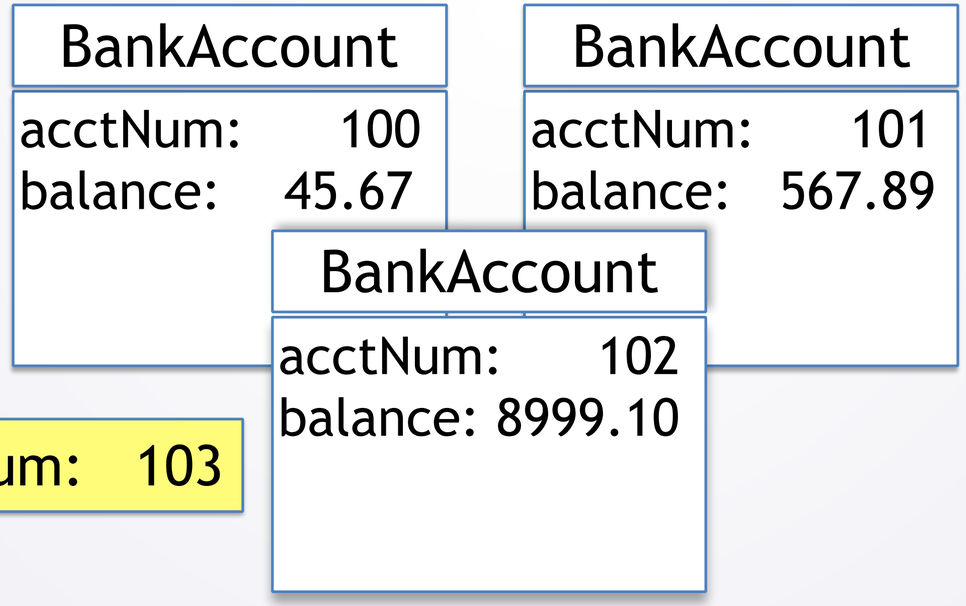

BankAccount's nextAcctNum: 103

Static: Methods and Fields

- Static fields:
  - One shared by all instances
  - Not as common as instance variables
- Static methods:
  - Not inside any particular instance
  - Can access static fields, call static methods
  - Cannot access instance variables or call regular methods
    - Need to specify what object to use