# Scope:
# Concept Challenge

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by Christine Alvarado, Mia Minnes, and Leo Porter, 2015.

# Memory model diagrams with scope

```
public class SimpleLocation
{
    public double latitude;
    public double longitude;

    public SimpleLocation(double latIn,
                          double lonIn)
    {
        this.latitude = latIn;
        this.longitude = lonIn;
    }
    // More code here
}
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```
public class LocationTester
{
  public static void main(String[] args)
  {
    double latitude = -15.5;
    SimpleLocation lima =
       new SimpleLocation(latitude, -77.0);
    latitude = -12.0;
    System.out.println(lima.latitude);
  }
}
```

<IVQ placeholder>

What does this program print?

A. Nothing because the repeated variable name **`latitude`** causes an error
B. -12.0
C. -15.5

# Break here for Learner Video

# Collaborative Challenge

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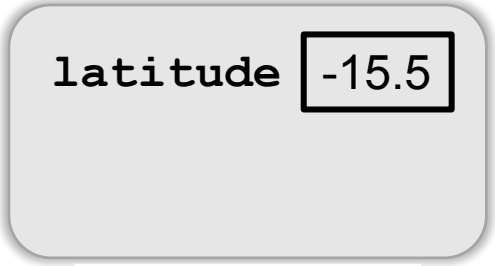


main's scope

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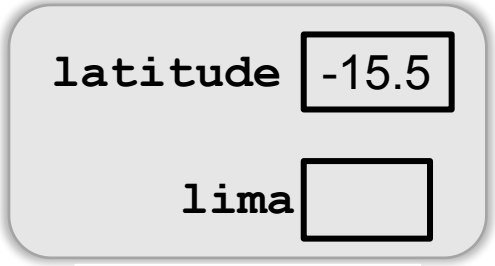


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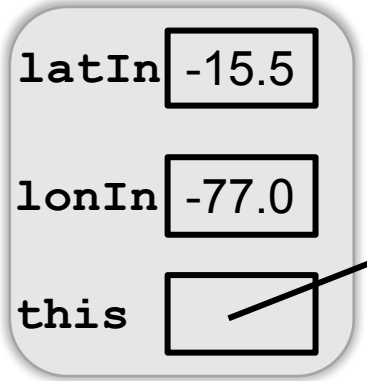
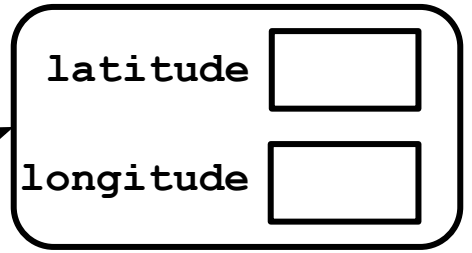



constructor's scope




**SimpleLocation** object
(created on the heap)

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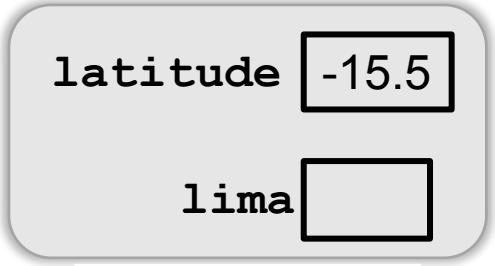


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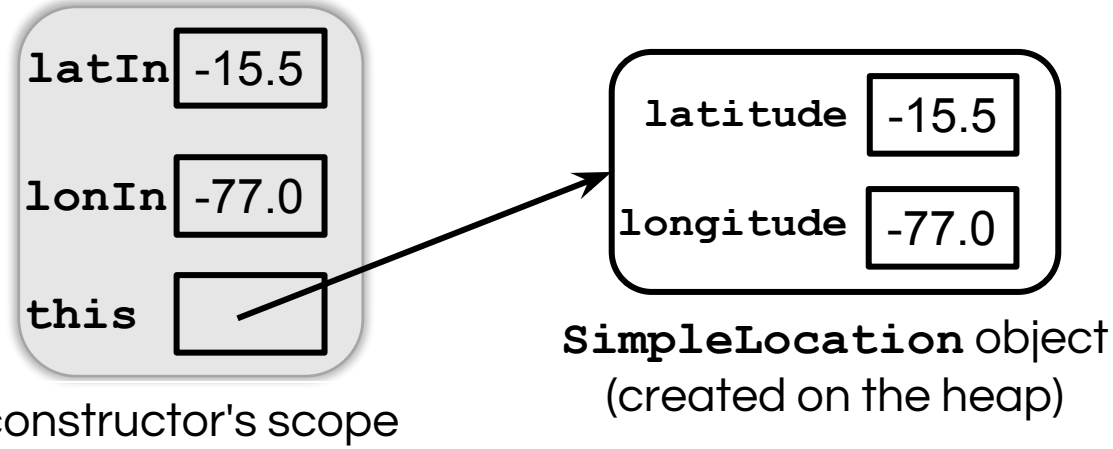


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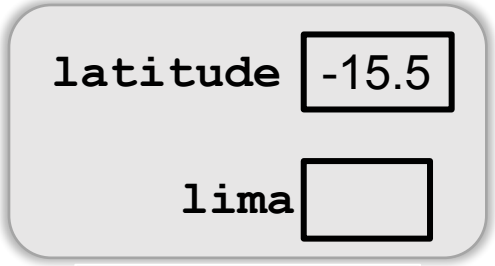


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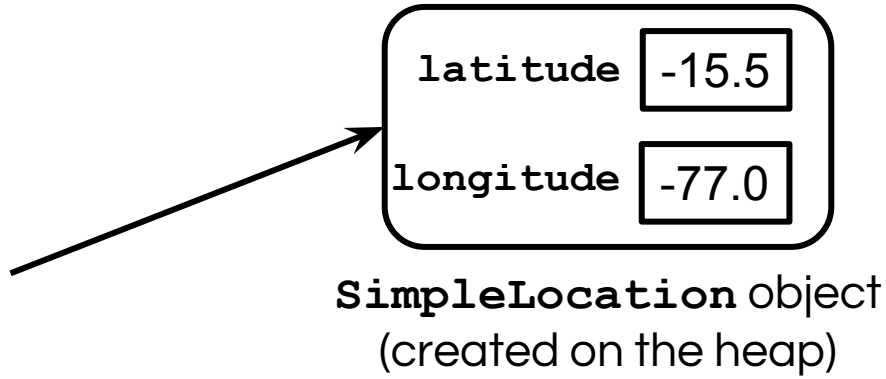


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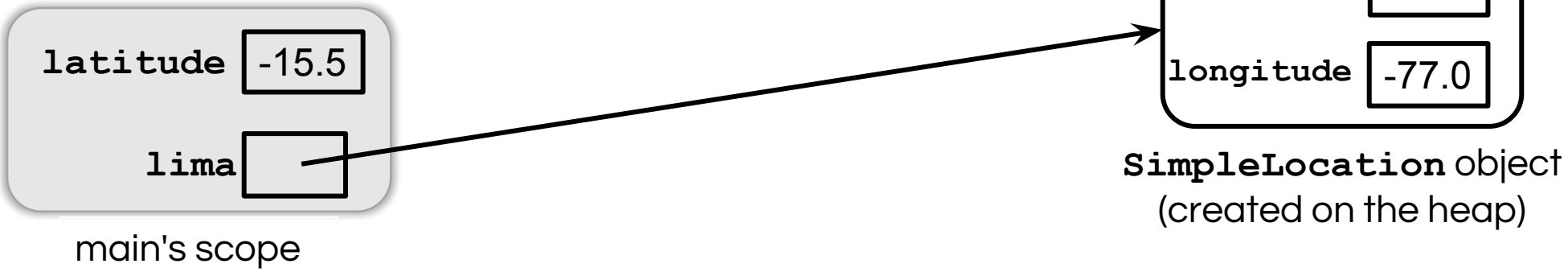

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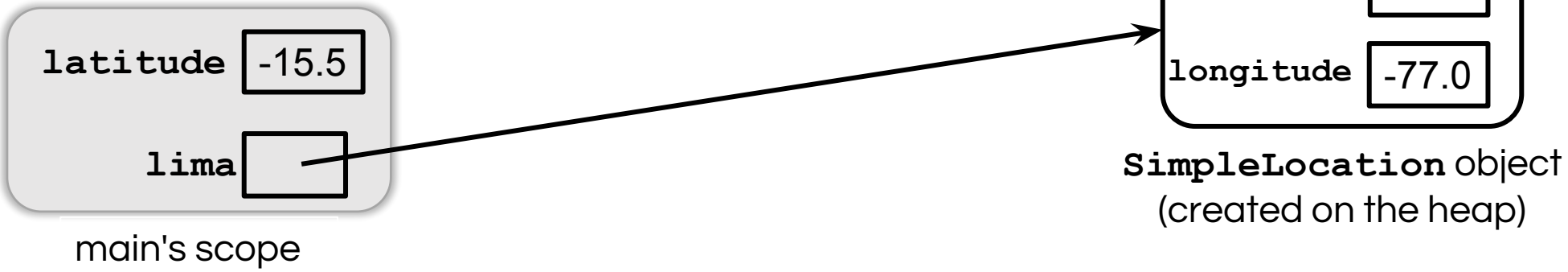

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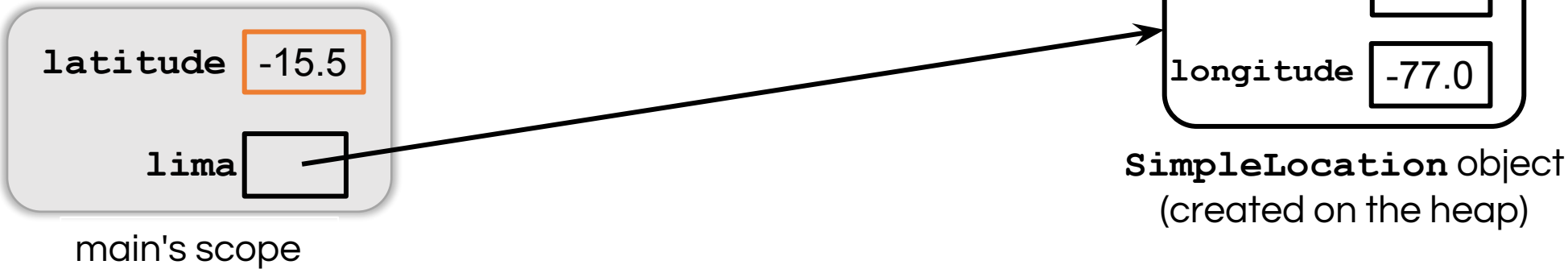

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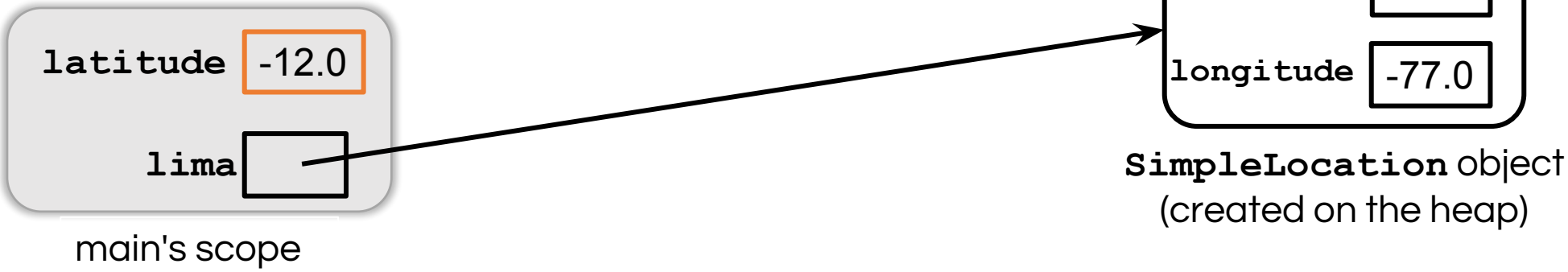

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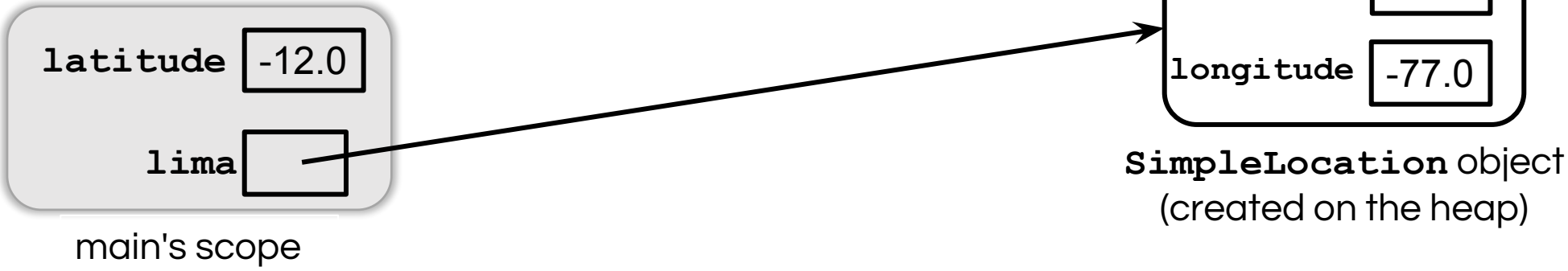

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