

The INFDEV team

#### test

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Hogeschool Rotterdam Rotterdam, Netherlands



The INFDEV team

```
interface ICounter {
    void Incr(int diff);
}
class Counter : ICounter {
    private int cnt;
    public Counter() {
        this.cnt = 0;
    }
    public void Incr(int diff) {
        this.cnt = (this.cnt + diff);
    }
}
ICounter c = new Counter();
c.Incr(5);
```

Stack: PC



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```
Stack: \begin{array}{|c|c|c|}\hline PC \\\hline 13 \\\hline \\ Heap: \\\hline \hline cnt= \\\hline \end{array}
```



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Stack: PC ... PC ret this 13 ... 7 null ref 1

Heap: 1



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 Stack:
 PC
 ...
 PC
 ret
 diff
 this

 14
 ...
 10
 null
 5
 ref 1

Heap: 1 cnt=0



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```
Stack: PC c 15 ref 1 Heap: 1 cnt=5
```



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Declarations:



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```

Declarations: PC this 7 Counter

| Counter                                      | ICounter                    |
|--|-----------------------------|
| Counter=Counter 	o Counter                   |                             |
| $Incr=(Counter \times int) \rightarrow void$ | $Incr=int \rightarrow void$ |
| cnt=int                                      |                             |



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```

Declarations: PC diff this 9 int Counter

| Counter                                      | ICounter                    |
|--|-----------------------------|
| $Counter=Counter \rightarrow Counter$        |                             |
| $Incr=(Counter \times int) \rightarrow void$ | $Incr=int \rightarrow void$ |
| cnt=int                                      |                             |



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Declarations: PC 13

| Counter                                      | ICounter                    |
|--|-----------------------------|
| $Counter = Counter \rightarrow Counter$      |                             |
| $Incr=(Counter \times int) \rightarrow void$ | $Incr=int \rightarrow void$ |
| cnt=int                                      |                             |



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ICounter c = new Counter();
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```

PC С Declarations: 14 Counter

| Counter                                      | Counter                     |
|--|-----------------------------|
| $Counter=Counter \rightarrow Counter$        |                             |
| $Incr=(Counter \times int) \rightarrow void$ | $Incr=int \rightarrow void$ |
| cnt=int                                      |                             |
|  |                             |



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```

| Declarations: | С       | PC | ret  | $arg_1$ | this    |
|---------------|---------|----|------|---------|---------|
|               | Counter | 14 | null | int     | Counter |

| Counter   | ICounter            |
|---|---------------------|
| $\begin{array}{c} Counter{=}Counter \to Counter \\ Incr{=}(Counter{\times}int) \to void \\ cnt{=}int \end{array}$ | $Incr{=}int\tovoid$ |



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```

| Declarations: |  | С       |  | PC | ret      | $arg_1$                     | this    |  |
|---------------|--|---------|--|----|----------|-----------------------------|---------|--|
|               |  | Counter |  | 14 | void     | int                         | Counter |  |
| Classes:      | Counter                                      |         |  |    | ICounter |                             |         |  |
|               | Counter=Counter 	o Counter                   |         |  |    |          |                             |         |  |
|               | $Incr=(Counter \times int) \rightarrow void$ |         |  |    |          | $Incr=int \rightarrow void$ |         |  |
|               | cnt=int                                      |         |  |    |          |                             |         |  |



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Declarations: PC c 15 Counter

 $\begin{array}{|c|c|c|}\hline Counter & ICounter \\ \hline Classes: & Counter=Counter \rightarrow Counter \\ Incr=(Counter\times int) \rightarrow void \\ cnt=int \\ \hline \end{array}$ 



### This is it!

test

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The best of luck, and thanks for the attention!