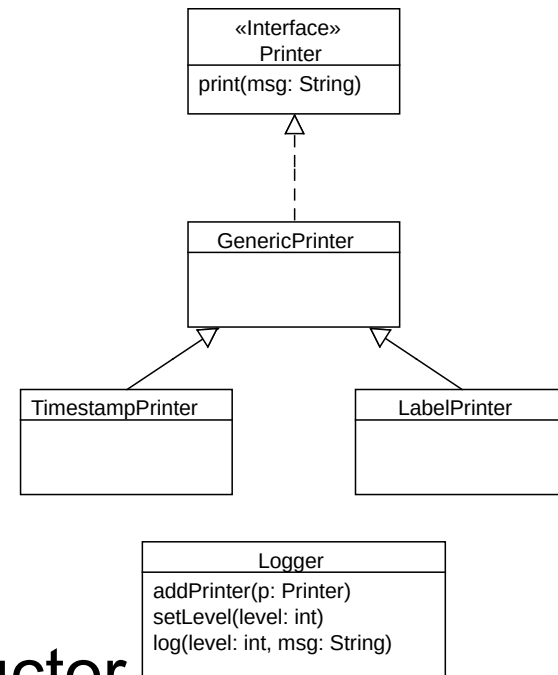


Assignments

- create interface `Printer` with method `void print(String msg)`
- create implementation `GenericPrinter` of the interface
- create implementations `TimestampPrinter` and `LabelPrinter`
 - for `TimestampPrinter` use `System.out.println(new java.util.Date())`
 - for `LabelPrinter`, “label” is set in constructor
- in constructors of all classes print out name of the class
 - test them by creating instances of all classes
- create class `Logger`
 - method `addPrinter` sets a printer
 - method `log` prints out message using the set printer
 - method `setLevel` sets a level – messages with lower level are ignored (i.e. the method does not print them out)



Assignments – cont.

- create interface MyCollection with methods
 - void add(Object o)
 - Object get(int i)
 - void remove(Object o)
 - void remove(int i)
- create an implementation of the MyCollection interface
 - use an array, which is reallocated if needed
- update the Logger, so that more than one Printer can be set
- add a **default** method to the Printer interface that prints an integer using the existing print(String) method
 - **default void print(int number)**

Assignments – for fast ones

- create an implementation of the MyCollection interface using a linked list

Test

- Add declaration of “i” so that the program prints “YES” (is it possible?)

```
if (i == -i && i != 0) {  
    System.out.println("YES");  
} else {  
    System.out.println("NO");  
}
```

Test

- Add declaration of “i” so that the program prints “YES” (is it possible?)

```
if (i == -i && i != 0) {  
    System.out.println("YES");  
} else {  
    System.out.println("NO");  
}
```

- Solution

```
int i = Integer.MIN_VALUE;
```

- Explanation:

- `Integer.MIN_VALUE = 0x80000000`
- negation is `0x7fffffff + 1 = 0x80000000`

Test

- What does the program print out?:

```
public class LoopTest {
    public static void main(String[] argv) {
        int START = 2000000000;
        int count = 0;
        for (float f = START; f < START + 50; f++)
        {
            count++;
        }
        System.out.println(count);
    }
}
```

- | | | | |
|---|----|---|----------------|
| A | 0 | D | nothing |
| B | 50 | E | something else |
| C | 49 | | |

Test

- What does the program print out?:

```
public class LoopTest {
    public static void main(String[] argv) {
        int START = 2000000000;
        int count = 0;
        for (float f = START; f < START + 50; f++)
        {
            count++;
        }
        System.out.println(count);
    }
}
```

- A 0** D nothing
B 50 E something else
C 49



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