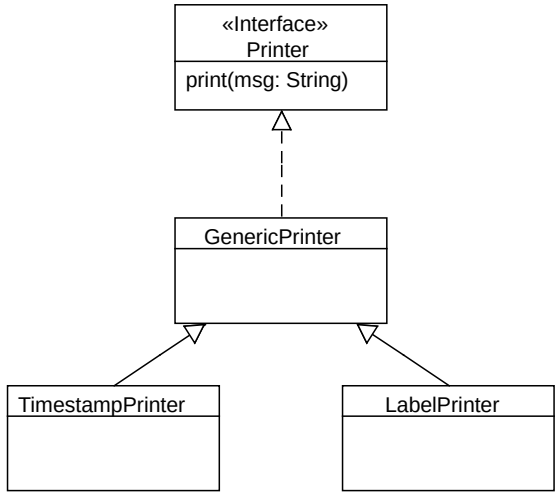
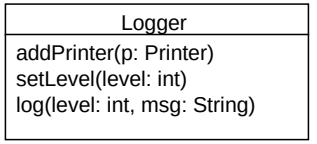
Assignments

- 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 inteface
  - 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
B 50
C 49
D nothing
E something else

The example based on code from *J. Bloch, N. Gafter: Java Puzzlers*

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
B 50
C 49
D nothing
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The example based on code from *J. Bloch, N. Gafter: Java Puzzlers*