



Laboratory of Analysis and Testing

Lezione 6

Filippo Ricca

ITC-Irst

Istituto per la ricerca
Scientifica e Tecnologica

ricca@itc.it

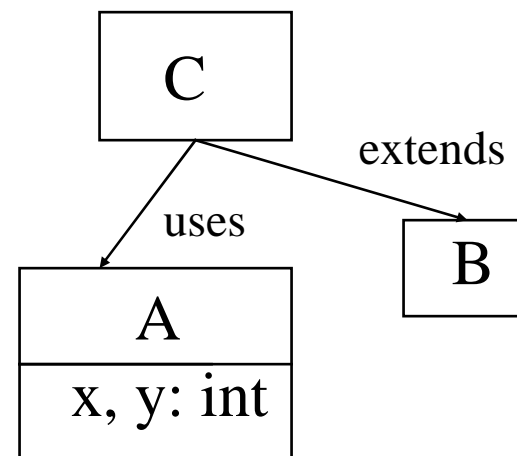
Exercise

Given a Java program build the **Class Diagram** (associations, extends, attributes) of it.

Class A
int x, y

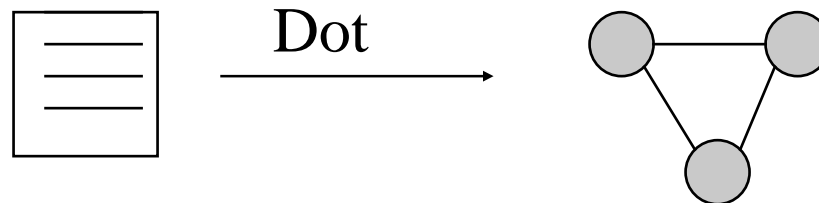
Class B

Class C extend B
A a



Dot

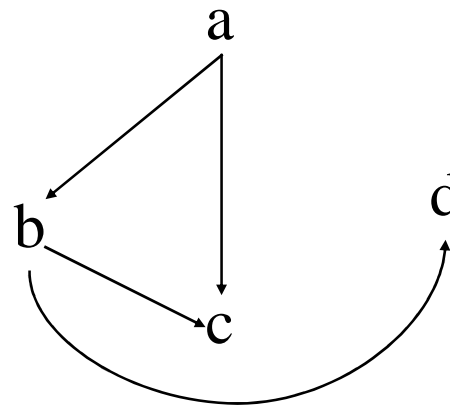
- ◆ Dot is a customizable **graph editor**.



- ◆ The dot language is intuitive.
- ◆ <http://www.graphviz.org/>

Dot – call graph

```
digraph g {  
  a ---> b ;  
  a ---> c ;  
  b ---> c ;  
  b ---> d ;  
}
```





Exercise: step by step

1. Give a look at <http://www.graphviz.org/> (see gallery)
2. Using dotty
3. Download the java grammar at <http://www.txl.ca>
4. Test it with small examples (parsing)
5. Implement in TXL the “getClassNames.txl” (print class names)
6. Implement in TXL the “TransformClassNamesInDotty.txl” (implement dot.Grm)
7. Adding to it **associations, extends and attributes.**
8. Test it.

getClassNames.txt

Idea:

1. Implement “getClassNames.Grm”

```
redefine class_declaration  
...  
/ '#class [class_name]
```

2. Implement a transformation that transform a java “class A ...” in #class A for each class in the input file.