

Practice of Programming using Java

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Today's new class: Class String

String comes from java.lang

String (char []input)

String (char []input, from, howmany)

String (String another)

char charAt (int pos)

concat (String another)

endsWith (String suffix)

indexOf (char c)

indexOf (char c, int from)

indexOf (String another)

indexOf (String another, int from)

valueOf (int i)

other value of functions

Replace occurrences of characters, Trimming whitespaces etc.

Interfaces

Specify externally observable member functions

Only the prototype declarations are specified and implementation is not specified and left for implementor class/classes.

```
interface Collection {  
    public Object fetch();  
    ublic Object add(Object o);  
}  
class Stack implements Collection {  
    ...  
    public Object fetch () {...}  
    public Object add (Object o) {...}  
}
```

Inheritance

Mechanism for

Pure Extension

$C1 = \{f, g, h\}$

$C2 = C1 + \{p, q\}$

Variant Behavior

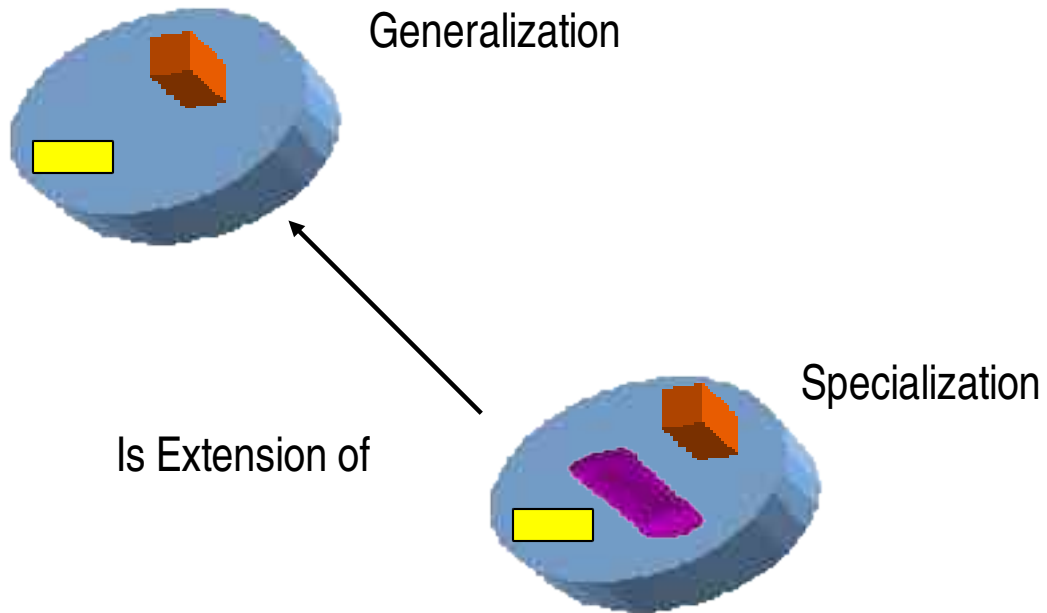
$C1 = \{f, g, h\}$

$C2 = C1$ with f' to be treated as f , rest of $c1$ as it is

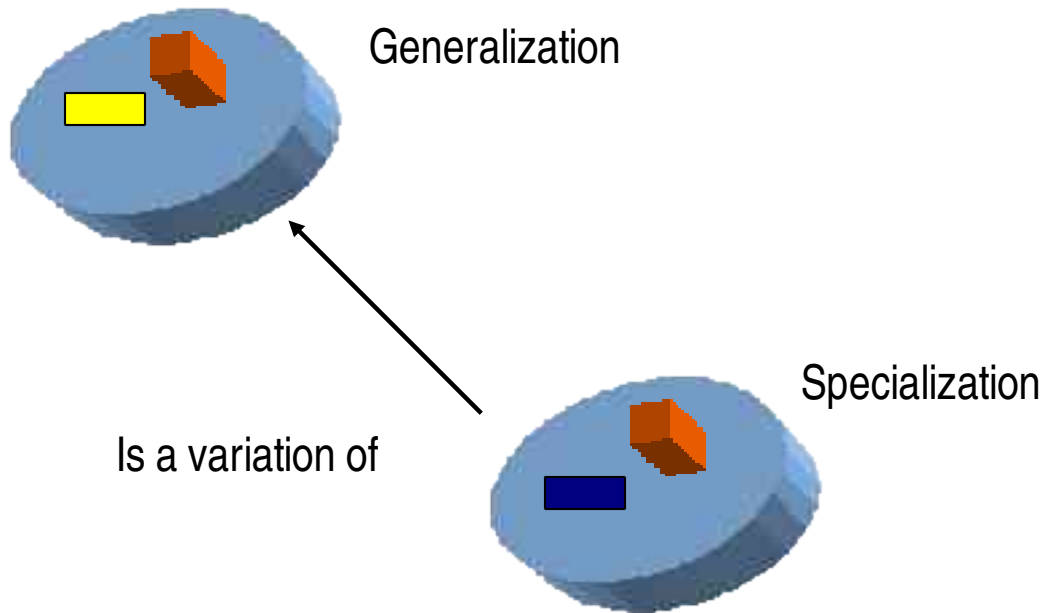
Polymorphism

Use instances of $C2$ where instances of $C1$ are required

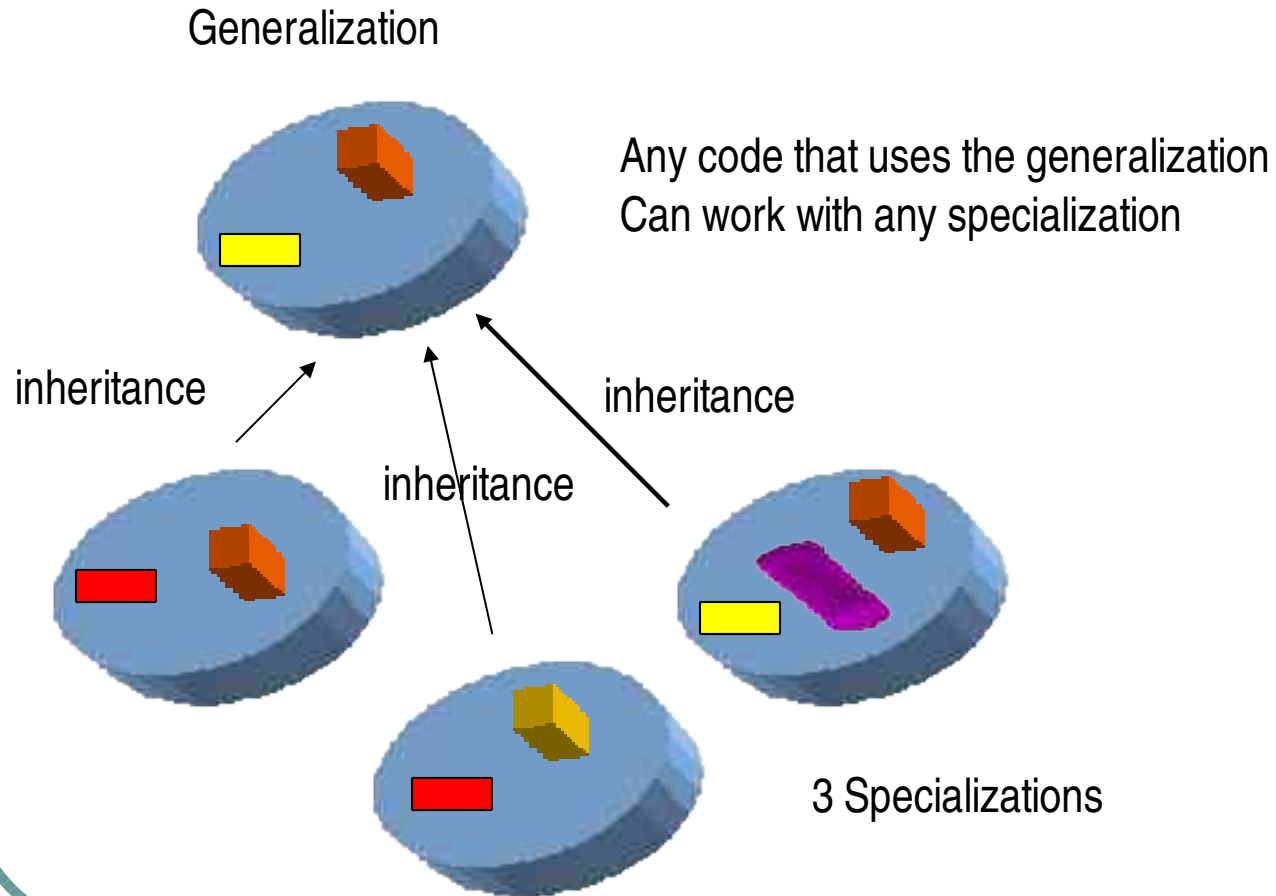
Pure Extension



Variant Behavior



Essence of Polymorphism



An Example of Inheritance Hierarchy of objects in a graphical drawing tool

