## Inheritance

### Introduction

A lot of programs today are written in an object oriented language such as Java and C++. This, of course, depends on how you actually measure the use of a language. But regardless of the figures and stats, Object Oriented languages are used a lot and it is important to understand this kind of language.

### Purpose

On one the key concepts in Object Oriented programmaing is inheritance. In Java this is done by using the keyword extends.

In order to understand Java properly we need to understand Object Orientation (OO) and to start learning more about OO we need to learn about inheritance. This lecture focuses mainly on inheritance.

### Requirements

It is assumed that you're familiar with the Java programming language in general. Having used the toString method in Java is a good thing.

#### Reading instructions

# Läsanvisningar Skansholm

- 10.1 Definitioner av subklasser
- 10.2 Referenser till subklasser
- 10.3 Dolda instansvariabler
- 10.4 Polymorfism av dyn...
- 10.5 Konstruktor vid arv

#### Arv-01

#### Video:

```
* arv-01a-small.webm
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- \* arv-01b-small.webm
- \* arv-01c-small.webm
- \* arv-01d-small.webm
- \* arv-01e-small.webm
- \* arv-01f-equals-live-small.webm
- \* arv-01g-tostring-live-small.webm

## Övningar:

• Arv-01-01 - Arv-01-17

## Goal

After this lecture the student should have a basic understanding of inheritance.

The student shall be able to:

- Understand the conecpt of inheritance
- Extend (inherit) from base classes
- Write a base class that others can inherit from

#### **Exam instructions**

The following exercises are examples of what may be examined:

Inheritance-01 - Inheritance-12