10. Nested classes and block structure

Description

This section will introduce the notion of nested classes, i.e classes that are defined as part of of an enclosing class. We have seen nesting before: methods are nested within the class where the methods are declared. The new thing here is that classes are nested within a class. The general notion of nesting, however, is not new. Algol 60 had e.g. procedures as part of procedures, and many languages may have nested blocks of program text; nesting is therefore also known as block structure. SIMULA introduced nested classes.

In the next pages we illustrate nested classes by three examples: (1) the first example is representing a context-free grammar, (2) the next example is in the domain of flights and routes of flights, and (3) the final example is in the domain of text processing.