

C#/.Net Project Cluster

<http://www.itu.dk/people/sestoft/csharp/>

Timeline

- **Project contract** ('projektaftale') entered into the project base no later than Monday 25 April.
- **Lectures** Monday 2 May to Wednesday 4 May in the morning (0900–1200 in lecture room 3).
Monday: Differences between C# and Java.
Tuesday: Generic types and methods in C# 2.0.
Wednesday: Other new features: anonymous methods, iterator blocks, nullable value types, partial types; and interfacing to databases from C#.
- **Exercises** Monday 2 May to Wednesday 4 May in the afternoon (1300–1600 in rooms 4A54 and 4A56).
- **Project start** Wednesday 4 May and **Project completion** Friday 27 May before 1500.
- **Project presentation and exam**, probably between Monday 20 June and Thursday 30 June.

Project requirements

- Write a project description stating the goals and success criteria of your project.
- Develop a substantial piece of software using features of C#/.Net not found on the Java platform.
- Write a report that describes it. For instance: requirements, analysis, design, description and evaluation of the resulting software; notable differences from other platforms you know, and any other topic that seems relevant.
- As usual, the basis for the examination is your report and your oral presentation. Do not expect teacher and external examiner to have time to experiment with your program or digest all the source code.

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Project selection, Wednesday 20 April 2005

- Project cluster Goal 1: To show that C# is really quite similar to Java: object-oriented, single-inheritance, type-safe, managed, based on a virtual machine, ...
- Project cluster Goal 2: To use the many cool features of C# 2.0 that are different from Java:
Value types, `ref` and `out` parameters, properties, indexers, delegates, enum types, generic types and methods, iterator blocks, anonymous methods, nullable value types, partial classes, ...
- Project cluster Non-goal: To teach all Visual Studio's bells and whistles.
- Teacher: Peter Sestoft (sestoft@dina.kvl.dk) and teaching assistants.
- Materials:
 - Sestoft and Hansen: *C# Precisely*, MIT Press 2004.
 - Documents at <http://msdn2.microsoft.com/library/default.aspx>
 - Further materials to be announced later. (For instance, the C5 collection library book.)
- Tools: .Net Framework SDK 2005 beta 1 and Visual C# Express 2005 beta 1; or Mono 1.1.6 (eg. on Linux).

What should you do?

- Form project groups comprising 2 to 4 people. No exceptions will be made.
- Get *C# Precisely* and familiarize yourself with it. That is, start reading it.
- Make some small experiments with C# 2.0.
Tools are already installed on the classroom machines.
- Write a brief description of your project, get OK from me or a teaching assistant, and enter it into the project base **no later than Monday 25 April**.