

ISEL AVE 2021

Lecturing

- Zoom
- Students in Mute
- Students' questions on Slack
- **Questions and Answers required!**
- ~~Watching video recordings~~

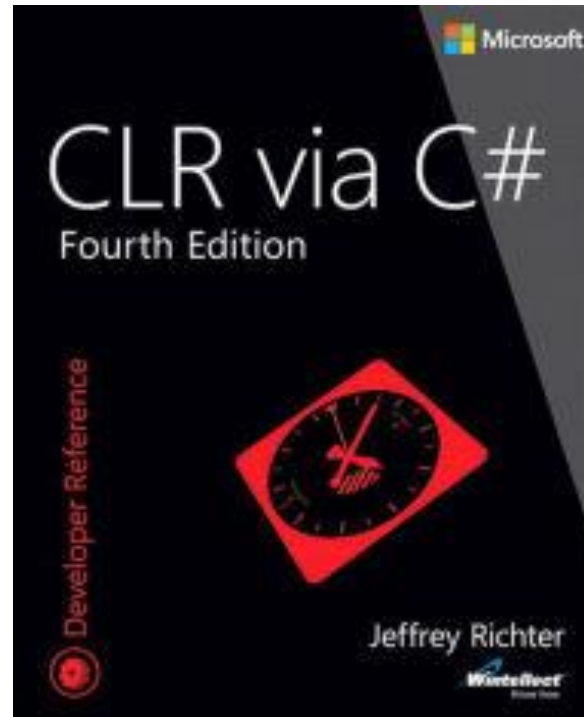


Bibliography

Bibliography



Essential .Net
Don Box



Workouts

- Groups with 3 students
- Private Repositories on Github Classroom
- 3 parts:
 1. Reflection
 2. Meta-programming / instrumentation
 3. Generics, Iterators (yield) and lambdas.

MAIN Goals

3 partes da matéria:

- **1. Reflexão** -- System.Reflection
 - **2. Instrumentação** (meta-programação) -- System.Reflection.Emit
 - ILDASM, PEVerify or ILVerify – required for 2nd workout.
 - **3. Delegates, Iteradores (yield) e Métodos Genéricos** (por esta ordem)
-
- **ATENÇÃO** excluídas todas as particularidades únicas do dotnet tais como:
 - Eventos
 - Chain delegates (MulticastDelegate, Combine and Remove)
 - EIMI – Explicit Interface Method Implementation
 - e todas as idiosincrasias que existem só no dotnet.

Lecturing with some Applications

1. Logger via Reflection
2. Logger via Reflection + Emit => observe better performance
3. Iterators (IEnumerable), e.g. students listing:
 1. NON generics NON yield. ONLY IEnumerable and Interfaces
 2. IEnumerable and Delegates – introduce non-generic lambdas.
 3. Lazy -> explicit implementation of IEnumerable
 4. Yield -> verboseless and compact implementation of Iterators
 5. Generic Methods

Tools:

- Notepad (or VS Code)
- Optional: Visual Studio 2019: CSC, ILDASM, PEVerify, ILASM
- Dotnet:
 - <https://dotnet.microsoft.com/download>
 - dotnet build
 - dotnet run
 - ILverify -- <https://www.nuget.org/packages/dotnet-ilverify/>

Avaliação

- Prática: 3 trabalho
- 50% - Teórica: Teste na data do Exame: Normal + Recurso
- 50% - Discussão final da componente prática:
 - Discussão Grupo
 - Nota individual

- Sujeito às circunstâncias da pandemia.

Código das aulas

- <https://github.com/isel-leic-ave/ave-2020-21-sem2-i41d>
- <https://github.com/isel-leic-ave/ave-2020-21-sem2-i41n>
- <https://github.com/isel-leic-ave/ave-2020-21-sem2-i42d>