

PV260 Course introduction

Radim Göth

Agenda

- About me
- Course organization
- Requirements
- About you
- Path to software quality
- Recommended reading
- About Y Soft

About me

- 5+ years full-time developer
- Mainly .NET/C#
- <https://www.linkedin.com/in/radimgoth/>

Course organization

- 13 seminars
 - Often lead by me, some lead by my colleagues from Y Soft
- Evaluation
 - 2 homeworks (15 points each)
 - Presentation (15 points)
 - 10 points for activity
- Attendance
 - Not mandatory, but highly recommended

Requirements

- Bring your own laptop
- Visual Studio 2019 or Rider
 - Keep it updated
 - .NET Core installed
- Pen and paper

About you

It doesn't take a huge amount of knowledge and skill to get a program working.

Getting it right is another matter entirely. Getting software right is *hard*.

Robert C. Martin - Clean Architecture

When a software is done right

- Fewer bugs
 - Easy to maintain
 - Easy to add new functionality
 - Easy to onboard new developers
 - Easy to troubleshoot a problem
 - ?
- Secured
 - Scalable
 - Performing well
 - Usable
 - Reliable
 - ?

How

- Knowledge
 - SOLID principles and clean code, object oriented design, agile development, software architecture, software security, design patterns,...
- Skills
 - Test-driven development, user story mapping, performance testing, refactoring, domain-driven design, code reviews, teamwork,...

Recommended reading

- The Pragmatic Programmer, David Thomas, Andrew Hunt
 - <https://pragprog.com/book/tpp20/the-pragmatic-programmer-20th-anniversary-edition>
- Test Driven Development: By Example, Kent Beck
 - <https://www.amazon.com/Test-Driven-Development-Kent-Beck/dp/0321146530>
- Clean Code: A Handbook of Agile Software Craftsmanship, Robert C. Martin
 - https://www.amazon.com/gp/product/0132350882/ref=db_s_a_def_rwt_bibl_vppi_i0

About

- Print and scan management
 - Distributed, highly scalable architecture, 3D print, OCR, cloud, HW – card readers, terminals, boards,... .NET Core, React, Java, Spring,...
- <https://www.youtube.com/watch?v=ig36a8tHAtE>
- <https://www.daretothinkbyg.com/cs/pro-studenty?family=thesis&university=MU&thesis=Thesis-CAT-1>
- <https://www.daretothinkbyg.com/cs/pro-experty>
- <https://less.works/>