# "Gang of Four Design Patterns in C#"

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#### Presentation

- Name
- Company affiliation
- Area of expertise
- ▶ C# experience
- Expectations for the course





### Prerequisites

- Working knowledge of newest C# and Visual Studio
  - Object-oriented development
    - Classes
    - Inheritance
    - Virtual methods
    - Extensions
  - Interfaces
  - Delegates
  - ...
- ▶ An interest in becoming a better C# developer. ◎



- Introduction
  - What Are Design Patterns?
- Part I: Creational Patterns
  - Abstract Factory
  - Builder
  - Factory Method
  - Prototype
  - Singleton
- Part II: Structural Patterns
  - Adapter





- Part II: Structural Patterns (Cont'd)
  - Bridge
  - Composite
  - Decorator
  - Façade
  - Flyweight
  - Proxy





- ▶ Introduction to Day 3+4
- Part III: Behavioral Patterns
  - Iterator
  - Chain of Responsibility
  - Template Method
  - Strategy
  - Memento
  - Command





- Part III: Behavioral Patterns (Cont'd)
  - State
  - Interpreter
  - Visitor
  - Observer
  - Mediator
- ▶ If Time Permits: A Few Enterprise Patterns
  - Repository (with Entity Framework)
  - Null Object (with Unit Testing)
  - Dispose





#### Course Material

- Book
  - Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides: "Design Patterns: Elements of Reusable Object-Oriented Software"
- Slides
- Examples for every module
- ▶ Labs (and lab solutions) for every module
- Course evaluation after Day 4





#### Practical Information

- ▶ Each course day will be from 9.00 to 16.00
- Breaks
- ▶ Toilets
- Food and beverages
- Phones and devices
- Smoking
- Any questions...?







Denmark

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