

# "Gang of Four Design Patterns in C#"

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**TEKNOLOGISK**  
**INSTITUT**

# 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. 😊

# "Gang of Four Design Patterns in C#" – Day 1

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



# "Gang of Four Design Patterns in C#" – Day 2

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

# "Gang of Four Design Patterns in C#" – Day 3

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

# "Gang of Four Design Patterns in C#" – Day 4

- ▶ 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
  
- ▶ Conclusion

# 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...?



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