

# "Design Patterns in C#"

Jesper Gulmann Henriksen



# 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. ☺



# "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
  - Bridge



# "Design Patterns in C#" – Day 2

## ▶ Part II: Structural Patterns (Cont'd)

- Composite
- Decorator
- Façade
- Flyweight
- Proxy

## ▶ Part III: Behavioral Patterns

- Iterator
- Chain of Responsibility



# "Design Patterns in C#" – Day 3

- ▶ Introduction to Day 3+4
  
- ▶ Part III: Behavioral Patterns (Cont'd)
  - Template Method
  - Strategy
  - Memento
  - Command
  - State
  - Interpreter
  - Visitor
  - Observer
  - Mediator



# "Design Patterns in C#" – Day 4

- ▶ Part VI: Enterprise Patterns
  - Repository (with Entity Framework)
  - Null Object (with Unit Testing)
  - Dispose
- ▶ Part VII: Workshop Exercise
- ▶ 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
- ▶ A larger project on Day 4
- ▶ 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...?





WINCUBATE

***Jesper Gulmann Henriksen***

PhD, MCT, MCSD, MCPD

Phone : +45 22 12 36 31

Email : [jgh@wincubate.net](mailto:jgh@wincubate.net)

WWW : <http://www.wincubate.net>

Hasselvangel 243

8355 Solbjerg

Denmark