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## Code & Test Smarter with Design Patterns

**Duration: 5 Days    Course Code: GK2340**

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### Overview:

In this course, you will learn how to identify problems that occur repeatedly in your code, and solve those problems in a standardized way. Learn about the design pattern concept; which is a programming solution or template that can be used in many different situations. You'll also discover new tools for creating successful software.

You'll get answers to these questions: What constitutes a design pattern? How do I write code that can adapt to change? How can I identify code that needs changing, and which patterns to apply to anticipate the next stage of development? How can I best implement the Gang of Four design patterns with .NET technology? How to approach unit testing and test driven development, utilising design patterns?

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### Target Audience:

Developers who want to construct better distributed applications using collective real-world knowledge

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### Objectives:

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| ■ Rationale behind design patterns  | ■ Learn how to write code that is testable by leveraging design patterns   |
| ■ Basics of Unified Modeling Language (UML)                                       | ■ Refactor code to use the most appropriate pattern  |
| ■ How best to apply design patterns to .NET to effectively leverage the framework | ■ Implement and code patterns such as Singleton, Factory, Decorator, Strategy, Command, Iterator, Visitor, Composite, Adapter and Façade to name a few |
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### Prerequisites:

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| ■ Demonstrate proficiency in object-oriented programming techniques |  |
| ■ .NET experience   |  |
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### Content:

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| ■ Introduction to Design Patterns using UML Concepts | ■ Iterator, Composite, and Visitor | ■ MVC  |
| ■ Adapter and Façade                                 | ■ Decorator                        | ■ Getting Started with Test Driven Development |
| ■ Singleton  | ■ Command                          | ■ Designing Code for Testing                   |
| ■ Creation Patterns                                  | ■ State                            | ■ Using Test Doubles to Isolate Code           |
| ■ Observer   | ■ Proxy, Interceptor               |  |
| ■ Strategy and Template                              | ■ ORMs and Repository Pattern      |  |
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## Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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