



Program

Introduction to Design Patterns and UML

First day

Introduction - Design Patterns and UML "light"	
09:00	Lecture 1 Introduction to course. The history and definition of Design Patterns. UML "light" and CRC: Documenting Case study by class and sequence diagrams and CRC.
10:15	Exercise 1: Simple documentation of Case study using UML
10:45	Wrap-up exercise 1
11:00	Coffee break
11:15	Lecture 2 A starter pattern: Observer
12:00	Lunch
12:45	Exercise 2: Observer pattern in Case study.
13:30	Wrap-up exercise 2
13:45	Coffee break
14:00	Lecture 3 Strategy pattern: An analytical approach
15:00	Exercise 3: Strategy pattern in Case study. Optional exercises
15:45	Wrap-up exercise 3
16:00	End of day

Second day

The principles of GoF	
09:00	Lecture 4 Pattern fragility. The Composite pattern.
09:30	Exercise session 4: Composite in the Case study. Optional exercises.
10:15	Wrap-up exercise 4
10:30	Coffee break
10:45	Lecture 5 Patterns: Classes or roles? The Abstract Factory pattern
11:15	Exercise session 5: Abstract Factory in the Case study. Optional exercises.
11:45	Wrap-up exercise session 5
12:00	Lunch
12:45	Lecture 6

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	The principles of the Gang of Four: Elements of reusable design.
13:30	Exercise 6: Apply principles to handle new requirements to the Case study.
14:15	Wrap-up exercise session 6
14:30	Coffee break
14:45	Lecture 7 Variance and compositional design.
15:15	Exercise 7: Documenting your Case study design using UML.
15:45	Wrap-up exercise 7
16:00	End of today

Third day

Patterns in Perspective	
09:00	Lecture 8 Mediator and variants.
09:30	Lecture 9 10 patterns in 20 minutes - GoF principles applied. The common structure of Patterns.
10:00	Coffee break
10:15	Exercise 9: Pick a problem - pick a pattern.
11:45	Wrap-up exercise 9
12:00	Lunch
12:45	Lecture 10 UML "heavy": Communication, package, and deployment diagrams.
13:15	Exercise 10: Rearranging the Case study package and deployment structure
13:45	Wrap-up exercise session 10
14:00	Lecture 11 Patterns in perspective - architecture quality attributes.
14:45	Coffee break
15:00	Outlook Recommended ways to move on. Guide to literature. Evaluation.
15:30	End of course