



Royal University of Law and Economics (RULE)

Course

Business and Software Modeling with UML

Academic Year: 2011-2012

Semester: 1

<http://www.setha.info/ict-others/3-ict-course-0001.html>

1

About Lecturer

- Name: Mr. IECH Setha
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- Mobile: 012 90 43 87 / 097 6 355 335
- Website: <http://setha.info>
- Education
 - Being Studied Master Degree at RUPP
 - 2006: Graduated Bachelor + 1 Degree of Computer and Math at NIE
 - 2005: Graduated Bachelor Degree of Computer Science at RUPP
- Other Training
 - IT Training in Singapore and USA
 - IT Exchange Study in Japan (OSAKA PREFECTURE UNIVERSITY)
- Experiences
 - DBA and Programmer at **Ministry of Economy and Finance**
 - DBA and Programmer at **CAMINCO** Insurance Company
 - Create and maintain system at **Monument Book Co., Ltd.** In connecting with Accounting, Inventory, Sale, and Purchase
 - Other Softwares Achievement: Hotel, Mart and Minimart

2

Course Goals

- In this course, students will learn how to:
 - Expand the analysis into a design ready for implementation
 - Construct designs that are reliable
 - Produce object models and designs from system requirements
 - Identify use cases and expand them into full behavioral designs
 - Use the Unified Modeling Language (UML) diagrams

3

Who should learn this course?

- **Programmers** and **systems developers** who need to learn more about design and specifically how the tools of UML help in design.
- **Team leaders** and **analysts** who need a tool to help communicate what the project is all about.
- **Business analysts** and **clients** who need to communicate with **systems developers**.

4

What should you know before this course?

- Concept of Database Theory
- Concept of Software Engineering
- Programming Language: Microsoft Visual Basic Programming and .Net Programming
- Database Management System (DBMS): Microsoft SQL Server 2000-2005-2008, MySQL, Oracle

5

Course Contents

- Chapter 1: Introduction to UML
- Chapter 2: Overview of OOP
- Chapter 3: Use Case Modeling
- Chapter 4: Class and Object Modeling
- Chapter 5: Activity Diagram
- Chapter 6: Sequence and Collaboration Diagram
- Chapter 7: State-chart Diagram
- Chapter 8: Component and Deployment Diagram

6

Systems to Apply in this Course

- Inventory Controls System
- Account Receivable System
- Account Payable System
- Point of Sale System in Supermarket, Restaurant, Minimart, etc.
- Hotel System
- etc.

7

What you need to have?

- Pencil and paper to draw UML diagrams or
- Use modeling tools such as MS-Visio, SmartDraw, MagicDraw, Rational Rose, etc.
- Microsoft Visual Basic or C# .Net 2005 or 2008
- Microsoft Access or Microsoft SQL Server (prefer) or MySQL

8

Class Assessment

9

References

- UML Weekend Crash Course (Thomas A.Pender, 2002)
- Professional UML with Visual Studio .Net (Andrew Filev, Tony Loton, Kevin McNeish, Ben Schoellmann, John Slater, Chaur G. Wu, 2002)
- UML for Database Design (Eric J. Naiburg and Robert A. Maksimchuk , 2001)

10