

MC302: Object Oriented Programming

Since 2010.

Prerequisite: MC202

Description:

Basic and advanced concepts on object-oriented programming. Concepts applications using an object-oriented language.

Programme:

1. UML - Unified Modeling Language
2. Data abstraction, objects, classes and types
3. States and messaging
4. Simple and Multiple Inheritance
5. Generalization/specialization hierarchies
6. Aggregation/decomposition hierarchies
7. Polymorphism and Dynamic Coupling
8. Abstract classes
9. Interfaces
10. Inner classes
11. Modularization
12. Visibilities
13. Exception Handling
14. Metaclasses
15. Delegations
16. Collections
17. Threads
18. Object Persistence
19. Distributed Persistence
20. Design Patterns

Recommended Literature:

- I. The Java Programming Language, Ken Arnold, James Gosling, & David Holmes; Prentice Hall, 4th edition (2005)
 - II. Java in a Nutshell, David Flanagan; O'Reilly & Associates, 5th edition (2005)
 - III. Thinking in Java, Bruce Eckel; Prentice Hall, 4th edition (2006)
 - IV. Head First Java, Kathy Sierra & Bert Bates; O'Reilly Media, 2nd edition (2005)
 - V. Java How to Program, Harvey M. Deitel & Paul J. Deitel; Prentice Hall, 7th edition (2007)
 - VI. Object-Oriented Programming with Java: An Introduction, David J. Barnes; Prentice Hall (2000)
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