

Object-Oriented Programming (OOP)

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Lesson 00:

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Document History

Date	Course Version No.	Software Version No.	Developer / SME	Change Record Remarks
06-Oct-2008	0.1D	NA	Shrilata Tavargeri	Content creation. Inputs from existing material in MS word format and corresponding ppt.
Nov-2008		NA	Veena Deshpande / Rashmi Bharti	Review
08-Dec-2008		NA	CLS team	Review
Jan-2009	1.0	NA	Nilendra Nagwekar	Review
Jul-2009	2.0	NA	Shrilata Tavargeri	Content revamp. Inputs from review team.
May-2011	2.1	NA	Veena Deshpande	Refinements to include contents from WBT slides and review comments of Integration Exercise
March 2015	2.2	NA	Kavita Arora	Made changes according to revised TOC

Course Goals and Non Goals

- Course Goals

- At the end of this program, participants will gain an understanding of:
 - Principles of Object-Oriented technology
 - Concepts and terminology associated with Object-Oriented technology

- Course Non Goals

- This program does not attempt:
 - To explain features of OOP using sample code, or
 - To go into technology specific details.

Pre-requisites

- Fair Knowledge of any programming language

Intended Audience

- Developers in Object-Oriented technology



Day Wise Schedule

- Day 1
 - Lesson 1: Introduction to Object-Oriented technology
 - Lesson 2: Objects and Classes
 - Lesson 3: Principles in Object-Oriented technology
 - Lesson 4: Some more concepts in OOP

Table of Contents

- Lesson 1: Introduction to Object-Oriented Technology
 - 1.1: Object Oriented concepts
 - 1.1.1: What is Object-Oriented Programming?
 - 1.1.2: Why Object-Oriented Programming?
- Lesson 2: Objects and Classes
 - 2.1: What is an Object?
- (Object State, Object Behavior, Object Identity)
 - 2.2: What is a Class?
 - 2.2.1: Getting into Details
 - (Class Attribute and Operations, Access Modifiers, Constructors and Destructors, Attribute Types)

Table of Contents (contd.)

- Lesson 3: Principles in Object-Oriented Technology
 - 3.1: Object-Oriented Principles
 - 3.1.1: Abstraction
 - 3.1.2: Encapsulation
 - 3.1.3: Modularity
 - 3.1.4: Hierarchy
 - 3.2: Polymorphism

Table of Contents (contd.)

- Lesson 4: Some More Concepts in OOP
 - 4.1: Static Members
 - 4.2: Abstract Class
 - 4.3: Interface
 - 4.4: Packages

References

- Books:

- Sams Teach Yourself Object Oriented Programming in 21 Days; by Anthony Sintes (Sams Publishing)
- Object-Oriented Software Construction; by Bertrand Meyer, (Prentice-Hall)
- The Object-Oriented Thought Process; by Matt Weisfeld (Sams Publishing)



References

- Websites:

- <http://java.sun.com>
- <http://gd.tuwien.ac.at/languages/c/c++oop-pmueller>

Next Step Courses

- Programming with Object Oriented languages

